

ANIMAL EXPLOITATION DURING THE BRONZE
AGE IN SW ROMANIA WITH A SPECIAL REFERRING
TO OSTROVUL CORBULUI
(MEHEDINȚI COUNTY)

Georgeta El Susi

Keywords: *Romania, Banat, Ostrovul Corbului, Bronze Age, archaeozoology*

Cuvinte-cheie: *România, Banat, Ostrovul Corbului, epoca bronzului, analize arheozoologice*

The present study sets forth the results of the archaeozoological investigations in sites of the Bronze Age, in SW Romania, located into dissimilar areas: the lower regions of the Banat and the Danube Valley. The former one includes the next sites: Foeni - *Gomila Lupului* (Vatina Culture)¹, Foeni - *Cimitirul Ortodox* (Gornea-Orlești Culture)² and Cornești - "Cornet" (Vatina Culture)³. Together, the sites provided about 4,177 faunal remains (Table 1). The settlements are placed in the flat alluvial plain between Mureș and Timiș rivers, on natural rises above the plain. The region has a high water table, which combined with the low angle of decline in the plain causes frequent flooding and seasonal formation of swamps in the surroundings. The density of the hydrographical network must have been largely in the past; today many branches of the rivers that cross the region have been filled naturally by alluvium or are dry. The region has a temperate continental climate with Mediterranean influences. Quaternary alluvio-deluvial deposits, loessoid deposits, overlie the relief. It was a forest-steppe region, at least partially covered with plain forests, mostly along the watercourses formerly. At present, secondary meadows and agricultural crops, with sparse oak groves dominate the landscape.

The site Gornea - *Păzăriște* (Vatina Culture)⁴ is placed in the southern Banat, on the middle terrace of the Danube, in the large depression of Sichevița. On the Danube bank (under pastures) and on the basin slopes (under mixed oak patches) argillic brown soils and luvic ones are spread.

They have a medium fertility, especially for grasslands. Alluvial soils are developed on the lowest Danube bank, at present time flooded. The diversity of biotopes assured the development of a very rich flora and fauna during the time. The Mediterranean influences in the local climate are more pronounced; consequently mixed oak forests with thermophile elements (lime, elm, ash) are yet well developed so far. The sample collected from the settlement totals no more than 800 bones.

The sites from Ostrovul Corbului – *Botul Cliuciului*⁵ are located on an island of the Danube, 16 km down river from Drobeta Turnu-Severin city, between 911-916 riverine km. Geographically, the island is placed at the limit between the Blahnița Plain and Bălăcița Piedmont (200-300 m altitudes). The temperate continental climate with Mediterranean influences (the highest yearly average of temperature in Romania) agreed for a diversified flora and fauna from Prehistory downwards. The river and its flooded plain, the neighboring higher plateaus covered by deciduous mixed forests, offered otherwise, conditions fit for breeding and agriculture.

The multileveled site has been deserved a special attention and the archaeological researches performed during 1970-1984 produced an impressive amount of materials exemplifying all epochs, from Epipalaeolithic to Middle Age. On the whole, the mentioned habitations furnished 10,500 bones. About 5,517 bones exemplifying Glina, Verbicioara and Gârla Mare Cultures (Bronze Age) were introduced in this analyse.

For now, only the sample of the Glina level (the final phase⁶) at Ostrovul Corbului⁷ gave us some ideas about the Early Bronze Age fauna in the zone. The faunal sample counts in 1,776 bones of which, the mammal remains total 88.9 %. The fish bones sum no more than 2.5 %; the shells represent 8.6 %; the results suggest that fishing and gathering would have played some role in diet, their exploitation having a seasonal character. In broad lines it supposes: the mammal exploitation, especially of cattle, pig, and sheep/goat is the pregnant note of the economic activities, by site function. Cattle with 21 % (as MNI, minimum number individuals) are the principal species in community supplying. For certain, the pig (18.7 %), by the side of caprovines (17.3 %) completed the community needs. The rare horse bones call in question his using in consumption. Casting a glance on the wild/ domestic ratio (with a value of 38.7/ 61.3 % on MNI) the major role of the hunting in the economic activities was supposed.

Table 1 - The species frequencies in sites of the Middle Bronze Age in the Banat Plain (as MNI)

Site	Cornești- Cornet	Foeni- <i>Gomila</i> <i>Lupului</i>	Foeni- <i>Cimitirul</i> <i>Ortodox</i>	Gornea- <i>Pă-</i> <i>zăriște</i>
Culture	Vatina	Vatina	Gornea-Orlești	Vatina
<i>Bos taurus</i>	26.4	18.2	28	16.4
<i>Sus domesticus</i>	20.9	17.3	19.7	23
Ovis/Capra	11.6	20.5	21	8.7
<i>Equus caballus</i>	9.3	14.4	2.5	-
<i>Cervus elaphus</i>	14	14.4	14	18.6
<i>Sus ferrus</i>	6.2	5.7	3.8	8.7
<i>Bos primigenius</i>	4.6	0.9	2.5	3.2
<i>Capreolus c.</i>	3.8	2.8	3.1	2.1
Other species	3.2	5.8	5.4	19.3
Domestics	69	73	74.5	54
Wilds	31	27	25.4	46
Total sample	856	805	2,402	919

Red deer was the most exploited species (20 %) in between wild species followed by wild boar (9.3 %) and roe deer (5.3 %). The capture of the beaver, marten would have had a fortuitous character, to restrain their damaging action. Analogies with the fauna spectrum from the eponymous station at Glina⁸ bring out some difference between sites. In this connection, cattle total 48.7 % (as MNI), followed by caprovines with 23.9 % and pig with 10.2 % at Glina. The red deer makes no more than 3.4 % even if the settlement is located in a lower zone; reach in waters, with spots of forest. The region was entirely forested (Vlăsia forest) by gone⁹. In all, the wild mammal remains represent 2.6 % as fragments and 12.7 % as MNI. Several factors would be accountable for the inconclusive data: smaller samples, below 2,000 pieces, some chronological differences, bio-geographic local peculiarities.

In Verbicioara level (the IIIrd phase¹⁰) cattle reduce the frequency up to 17.8 %, the small ruminants bulk large, (22.2 %), followed by pig with 15.6 %. None horse remains were found. The wilds' ratio approximates to 40 %, in accordance with the Glina level. Relating to game, the roe deer was the most exploited mammal, totalling 20 %, followed by wild boar with 13.3 %

and roe deer with just 2.2 %. To conclude we must admit that, the small ruminants bulk large, cattle somewhat diminish the quota, together with the pig, vs. the earlier habitation (Table 2).

Table 2 - The species frequencies in the Bronze Age levels at Ostrovul Corbului (as MNI)

Culture	Glina	Verbicioara	Gârla Mare
Bos taurus	21.3	17.8	14.4
Sus domesticus	18.7	15.6	20.9
Ovis/Capra	17.3	22.2	15.2
Equus caballus	1.3	-	1.6
Cervus elaphus	20	20	26.4
Sus ferrus	9.3	13.3	8.8
Bos primigenius	-	-	1.6
Capreolus c.	5,3	2.2	2.4
Other species	6.6	8.8	8.8
Domestics	61.3	60	56.7
Wilds	38.7	40	43.3
Total sample	1,776	1,266	2,475

Also, the environmental conditions didn't alter too much for the duration of two habitations, as the domestic/wild ratio shows it. It is difficult to argue the declining of bovines' quota compensated by sheep/goat increasing in conditions of a sample quite modest. Possibly, several adjustments (reorientations) in the local strategies of breeders would have turned out during the temporal sequence illustrated by our sample. Some analogies for the faunal data from Verbicioara level offer Rogova¹¹ and Verbița¹² analyses (coeval sites); both settlements are located at some distance afar off the Danube, at the contact between Blahnița Plain and Bălăcița Piedmont. Their faunal analyses blankly strengthen our data: a rising of caprovines quota, associated with a slightly declining of cattle percent. After statistics, cattle total just 23.3 % at Verbița and 29.8 % at Rogova. The small ruminants are quoted with 23 % at Rogova and 43.3 % at Verbița. Pig records 22-23 % in both sites. To some extent the data are consistent with Ostrovul Corbului; but the local conditions dissimilar from

the Danube Valley, as well as other factors would argue, the switchover of animal husbandry to sheep/goat breeding at Verbița. Excepting Rogova, diggings will not perform in aforesaid sites, in after years, to provide us new archaeozoological information.

Starting with the Gârla Mare habitation (the classic phase¹³) a “turnover” in animal economy possibly befell. In this connexion, an obvious declining of cattle quota up to 15.5 %, compensated by an intensifying of pig exploitation (20.4 %), and a sustained hunting (over 50 %) are noted. The rising of hunting rate would be partially explained by climatic alterations that would have happened around 1400 BC. Along the Bronze Age, especially up to its final phase a new *late Subboreal cooling*¹⁴ took place. The weather cooling favoured the woods’ expansion in the lower regions, mostly along the riversides. The decline of big and small ruminants’ breeding (animals with specific requirements of keeping) and the orientation towards hunting and exploitation of mammals without special demands of fodder (pig) could be a response to environment alterations. As well as socio-historical factors could be responsible for that *impasse* of the animal husbandry.

With confidence, the horse beef were used in diet for the period of the Bronze Age in the mentioned settlements. Reduced percentages (lesser than 3 %) are noted in the levels from Ostrovul Corbului, regardless of culture. The dog was an insignificant element in the economy; it is hard to say if the species was consumed.

About analogies with Gârla Mare level, a single site with a faunal analyse is Livade. It belongs to Dubovac-Žuto-Brdo Culture and is located on the right bank of the Danube, face-to-face of Ostrovul Corbului¹⁵. According to data, at Livade the animal economy focused on cattle exploitation (37 %), followed by pig (27.5 %) and sheep/goat with a lesser percent, 13.9 %. The horse played a minor role as the 3.4 % show it. The contribution of the game in the community supplying is reduced, below 15 %. An appraisal of the two faunal spectra brings out few similarities, closed only to the same position, in the vicinity of the Danube. At all, the high quotas of pig, the declining of caprovines and the practice of fishing, gathering during warm time are the main common traits.

The age class kill-off patterns (Table 3) reveal some aspects in case of the cattle: a lower quota of juvenile exemplars, about 6-11 % in Glina level, absent in Verbicioara level. The sub-adults total no more than 16-20 % in all levels. The age-class profiles point to a dominance of adult-mature specimens, as follows: 75 % in Glina habitation, 80 % in Verbicioara and 72 % in Gârla Mare. These results argue for the using of cattle mainly for diary products, traction, meet and hide.

Table 3 – The age profiles at Ostrovul Corbului

Glina level	Juvenile	Sub-adult	Adult	Mature
Bos taurus	6.2	18.7	62.5	12.5
Ovis/Capra	0	15.3	53.8	30.6
Sus dom.	35.7	35.7	14.3	14.3
Verbicioara	Juvenile	Sub-adult	Adult	Mature
Bos taurus	0	20	33.3	46.6
Ovis/Capra	11.1	44.4	22.2	22.2
Sus dom.	33.3	11.1	55.5	0
Gârla Mare	Juvenile	Sub-adult	Adult	Mature
Bos taurus	11.1	16.7	44.4	27.8
Ovis/Capra	15.8	31.6	36.9	15.7
Sus dom.	19.2	23.1	46.1	11.5

Some differences are noticeable in case of small ruminants' slaughtering, as follows: the exploitation of the species is mainly for by products in Glina habitation. In this context, the juvenile and sub-adults animals represent merely 15.3 %, the adult-matures account more than 80 %. The juvenile/ sub-adults to adult-matures ratio are equal, about 50/50 % in Verbicioara and Gârla Mare levels. No changes in the age profile occur in case of pig during Verbicioara and Gârla Mare habitations. As much, the juvenile/ sub-adults to adult/ matures ratio is equal in both cases (Table 3). The Glina profile makes exception, showing a highest rate of animals killed in juvenile/sub-adult stages (two thirds). The sample of the horse is too reduced to make some remark on the age class distribution.

The earliest Bronze Age site with a faunal analyse in the Banat plain, is Foeni – *Cimitirul Ortodox*, dated at the end of the Early Bronze/beginning of Middle Bronze (Gornea-Orleşti Culture)¹⁶. For the moment¹⁷ the data foreshadow a formal dominance of cattle (28 % as MNI), followed by caprovines (21 %) and pig (19.7 %). The use of the horse beef in diet is negligible, the species totalling no more than 2.5 %. By the side of farming, the hunting of a big game had also an important contribution to diet, allowing for the percent, 25.4 %. Between wild species the red deer is quoted with 14 %, the wild swine, roe deer, aurochs totaling less than 4 % each one (Table

1). We dare say that the exploitation of aquatic resources was practiced on large scale, as the faunal data disagree.

Enlarging upon the results furnished by the faunal samples from Foeni – *Gomila Lupului* (Vatina Culture)¹⁸ and Cornești (Vatina Culture) some conclusions have been taken for granted. Judging from statistics, outwardly the three samples offer similar pictures, about farming but a detailed survey emphasizes particular trends. Therefore, in Vatina sites cattle total no more than 18 % (Foeni *Gomila Lupului*) or 26 % (Cornești), but yet lesser values vs. the previous epoch. Pig ranks the second, with 20.9 % followed by sheep/goat with just 11.6 % at Cornești. At Foeni *Gomila Lupului* the caprovines are the most exploited group, totaling 20.5 %, followed by cattle and pig with 17.3 %. At Gornea – *Păzăriște* (Vatina Culture also) the decline of cattle is quite severe; they accumulate merely 16.4 %. It is beyond dispute that in the last case, the diversified local conditions facilitated mostly the small animal breeding and a sustained hunting. A similar situation befell during Neolithic times¹⁹ in the same region. The small ruminants have a reduced contribution in supplying at the site (8.7 %), prevailing the pig with 23 %.

In another site of the middle Bronze Age, Pecica (Periam-Pecica Culture), located beyond the Mureș, westward from Cornești, cattle barely dominate the faunal spectrum with 21.4 %, pigs and caprovines totalling 19 % each one. The declining of cattle quota is also emphasized in the Early Bronze Age levels from Toszeg (Pannonian Plain), where predominate the caprovines²⁰ or at Bakonseg-Kádárdomb (18.3 %) ²¹. At Feudvar²², cattle total up 11,4 %, vs. caprovines with 31,6 % and pig with 23.8 %. The fauna from Vinča (Vatina pits) establishes a higher contribution of the game to meat supplying, though the site is located in a lower region of the Serbia. As well, pig is the most exploited mammal (28.9 %), followed by caprovines (21 %) and cattle (14.4 %) ²³. The climatic alteration along the Bronze Age favoured the pig breeding; species adapted to a humid and forested habitat. Certainly the local environmental conditions (and not only) would have influenced the pathway of the economic development in each case.

The horse remains always are present in Bronze Age sites from Romania, inclusively in southwest regions. In late/beginning of Middle Bronze Age settlements it was bred mainly for meat, later a switchover in his exploitation occurred. The utilitarian purpose dominated its exploitation. At Foeni - *Gomila Lupului* the horse is quoted with de 14.4 %, and with 9.3 % at Cornești. Undoubtedly, the increasing of horse importance starting with the middle Bronze is tied to needs of defence of fortifications by “cavalry units”²⁴. At Pecica, the horse has also, an increased quota 11.9 %²⁵.

In a fashion, the distribution of wild mammals undergoes little changes during the analysed period, but some trends have been observed. The remains of hunted mammals represent about one third of the total sample in the lower regions of the Banat, and a higher quota in the Danube Valley. Red deer is the prevalent species among them; it sums up 14 % in the Banat Plain and 18.6 % in the Danube Valley. Wild boar ranks the second, its percent doesn't exceed 10 % everywhere. Aurochs, roe deer, hare, beaver, small carnivorous bones complete the faunal lists. A small amount of remains of birds, reptiles, fish, and shells preserved/ collected even though, the natural conditions favoured their exploitation. There were not found/ collected at Foeni *Gomila Lupului*; they sum below 1 % at Cornești and Gornea *Păzăriște*, only at Foeni *Cimitirul Ortodox* represent 6.2 %.

With regard to the age class distribution of cattle, the adult-mature animals prevail (about 70 %) at Foeni *Cimitirul Ortodox*, suggesting the keeping for by products, than meat. Their using at traction is confirmed by some metapodii of oxen. In case of ovicaprins and pig predominate the animals held in reserve mainly for meat; thus, upwards of 60 % of presumed individuals were killed, at a juvenile/ sub-adult stage. The horse was first and foremost employed in consumption without excluding its using as draught-horse. In case of Cornești, the age class kill-off patterns (Tab. 4) reveal some worthy of note aspects: the cattle age-class profile points toward dominance of adult-mature specimens (67.6 %) vs. juveniles and sub-adults (32.4 %). These values suggest the using of cattle for milking, traction, meet and hide mostly. In case of pig, the age profile shows a prevalence of adult-mature animals (63 %) also. In case of the horse, the young and sub-adult animals represent a lesser proportion, 16.6 %. The adult exemplars quote 41.7 %. In the proportion of mature specimens (41.7 %), those killed as young matures prevail. Surely, the horse was used as meat source, but its major role would have been as traction or riding animal. 26.7 % of the small ruminants were killed as juveniles/ sub-adults, 40 % as adults and 33.3 % as matures.

Table 4 – The age profiles in sites of the Banat

Foeni "Cimitirul Ortodox"	Juvenile	Sub-adult	Adult	Mature
<i>Bos taurus</i>	13.6	15.9	47.7	22.7
<i>Ovis/Capra</i>	21.2	45.4	18.1	15.1
<i>Sus domesticus</i>	16.1	45.1	22.5	16.1
<i>Equus caballus</i>		25	25	50

Foeni „Gomila Lupului”	Juvenile	Sub-adult	Adult	Mature
Bos taurus	15.8	36.8	10.5	36.8
Ovis/Capra	33.3	33.3	9.5	23.8
Sus domesticus	16.6	44.4	16.6	22.3
Equus caballus		13.3	40.1	46.6
Cornești	Juvenile	Sub-adult	Adult	Mature
Bos taurus	11.8	20.6	14.7	52.9
Ovis/Capra	20	6.7	40	33.3
Sus domesticus	33.3	3.8	40.7	22.2
Equus caballus		16.6	41.7	41.7
Gornea „Păzăriște”	Juvenile	Sub-adult	Adult	Mature
Bos taurus	6.7	6.7	33.3	53.3
Ovis/Capra		12.5	25	62.5
Sus domesticus	28.5	61.9	9.5	

The distribution suggests the breeding of small ruminants for meat, milk, wool, hide and reproduction. At Foeni *Gomila Lupului*, cattle and caprovines were exploited for meat and by products. In case of pig prevail the young/ sub-adult exemplars. As for horse, adults and matures go over 86.7 %, vs. 13.3 % (the quota of sub-adult animals), Young exemplars were not found. Habitually, the inhabitants used the species in the diet as the frequency and the age class profile confirm it.

In brief, the above-mentioned data suggest that, the settlements riverain to Danube vs. those from the lower region of the Banat developed animal economies adapted toward exploitation of local ecosystems. In about all cases cattle exploitation, an increased quota of small ruminants/ or pig and a sustained hunting supported the economy. The remains of hunted mammals represent just one third of the total samples in the lower regions as opposite to higher values in sites of the Danube Valley. With some exceptions the utilitarian purpose dominated their exploitation. All the sites have as common element the horse exploitation. In our quantification, dog remains were introduced in “other species” besides the mentioned remains. Their participation to meat supplying was insignificant.

The species

Cattle About 2648 remaining bones of cattle were collected from the mentioned sites. From the very beginning it could be noted that a small amount of complete bones conducive to withers' height estimations were found. Broadly speaking, an average of 119.2 cm (112.4-128.8, n= 4) was supposed for bulls in the Banat Plain. A value of 114.2 cm (113.5-114.8, n=3) was obtained for cows. 124.1 cm (120.9-129.1, n=3) is the mean value for oxen in the same area. Overall we appreciate that the withers' height varies between 113.5-129.1 cm (mean= 119.2 cm) in the Banat Plain. If we count out the geldings' values we should obtain a mean of 117.1 cm. The withers' height varies between 103.1-122.1 cm (Matolcsi) (mean= 109.8) in the Danube Valley, at Gornea *Păzăriște*. Values of 103-104 cm characterise the females, 122 cm is estimation for a male. In accordance with the revealed data, cattle from the Banat Plain were more robust and taller as compare to those from the Danube Valley during the Bronze Age. It is notable that, in Neolithic sites also, cattle from the low regions were more robust than those from the mountainous area of the Banat²⁶; conceivably the greater robustness seems to be a characteristic of cattle individuals in the low region opposite the south regardless of culture. Also the aurochs individuals from the Banat Plain were more robust as compare to those of the southern regions, dimensionally well fitting into the size range of the Panonian area²⁷. Certainly the propitious environmental conditions in the plain favoured a robust and taller "breed" than the mountainous zone of the southern Banat. We specify also that, a marked sexual dimorphism characterise the cattle individuals, the difference between sexes is around 20 cm. Sure enough the "Ostrov" should have had to offer propitious conditions as the lower zone for bovines' breeding. A single complete metacarpus collected from *Ostrov* (Gârla Mare level) appreciated a tall of 118 cm (male). The few metric data taken on breath of bones fit into the Bronze Age population of the Banat Plain²⁸. It is also worth mentioning that the castration phenomenon was pretty extent all over the region, especially at Foeni. We conclude that small and medium size individuals were exploited throughout the Banat during the Bronze Age habitations.

Sheep/goat About 892 remaining bones was collected from small ruminants, sheep being at least three-fold more numerous than goat. Referring to skull parts and horn cores, three types of horn cores were documented in case of sheep. The males bore heavy, three-edged and twisted outward horn cores, so-called "copper age type". The form is dominant in all the sites regardless of culture. As a characteristic the pieces are medium-big sized. Averages of 53.8 mm (41-62.5, n=5) for great diameter of the base

and 36 mm (28-43, n=4) for the small one were estimated. A very massive pair of pieces (250/62.5/43/175 mm) was collected at Gornea *Păzăriște*. This type was also found at Pecica²⁹. Females had rudimentary horn cores, “turbarry type” (2 pieces); hornless skulls were not found in our samples, though this type occasionally appears in Bronze Age sites³⁰. The stature of the sheep was estimated of being 63.7; 72.3 cm (Teichert), on two complete metapodii, at Foeni -“Cimitirul Ortodox”. Unfortunately the other sites of the Banat didn’t provide additional data on this subject. The current measurements point out the sheep exploited in the Bronze Age sites of the Banat belong to a taller and more robust “breed” vs. that exploited in Neolithic³¹. Little information about sheep exploited on “Ostrov” exists. Generally the values taken on fragmentary bones fit into the Middle Bronze Age sheep variation on the Romanian territory³². Few goat horn cores of “aegagrus type” (females), with a typical morphology: scimitar forms, not twisted, biconvex or plan convex on cross-section³³ were found. A single piece of large dimensions (154/54.5/34.5/157 mm), with well-developed outward twisting (“prisca type”) originating in a bock was found at Gornea -*Păzăriște*. Goat was more robust than sheep as the data reveal. No withers heights were estimated in the mentioned period for goat.

Pig 1,287 fragments were collected from species in the cited samples. About the absolute height, values of 61.1-79.9 cm (Teichert) (average – 74.1 cm; n=9) were appraised in the Banat Plain. For the sites riverain to the Danube could not make estimations, but similar increased values were reckoned after other corporal parameters. By and large the metric data are consistent with those noted in other Bronze Age site in our regions³⁴. The values are raised in relation to previous epochs³⁵, as everywhere in Bronze Age sites in southeast Europe, opinion generally received³⁶. To what degree just the accidental (or deliberate) mixtures with the boar are the source of these well-built individuals is difficult to say. Professor Haimovici went into the problem and explained that a wave of large pig individuals penetrated from eastwards at the end of Neolithic, together with the human migrations. A new domestication of the autochthonous boar (greater than the central European species) is not excluded as well³⁷.

Horse 207 bones derive from species according to registered data. Some complete pieces suggest animals with withers heights of 133.3 – 140.1 cm (Kiesewalter), average – 136.9 cm (n=4). According to the values of the index of diaphysis width of two metacarpals, slender-legged and medium-legged extremities were supposed. In broad lines, the other measurements uphold the existence of small and medium size animals. For all that, at Cornești the metric data suggest robust and taller animals as compare to other sites in

the southeast Banat³⁸. Little information exists about the horses exploited on *Ostrov*, due to the limited sample. We presume they didn't differ from horses raised in other areas. Human communities exploited a variety of horse exemplars during Bronze Age in the mentioned region, a foregone conclusion.

Dog An important number of dog bones emerged in the mentioned sites, about 90 remainders. According to the basal length of Dahr, 33.3 % of mandibles fall into "palustris" class, 33.3 % into "ladogensis", 16.7 % into "intermedius" and 16.7 % into „very large" class. This supposes that, small, medium and big size individuals existed around the sites. Accordingly, a diversifying of species occurred during the Bronze Age, the big type generalised vs. Neolithic when exemplars of small stature prevailed³⁹.

Georgeta El Susi
Str. Horea bl. 7 ap. 6
320061 Reșița, jud. Caraș-Severin
E-mail: getasusi@yahoo.com

NOTE

1. El Susi G., 1994, 184-192
2. El Susi G., 2001, 223-237
3. Personal data
4. El Susi G., 1995, 226-244
5. Personal data
6. Roman P., 1996, 17
7. El Susi G., 2003, 22-28
8. Haimovici S., 1997, 236
9. Haimovici S., 1997, 231
10. Roman P., 1996, 32
11. El Susi G., 1999, 25-41
12. Haimovici S., Gheorghiu Dardan G., 1970, 557-567
13. Roman P., 1996, 23
14. Apud Choyke A.M., Bartosiewicz L., 1999, 245
15. Greenfield J.H., 1986, 137-157
16. Gogăltan F., 1994, 24
17. The researches carry on in the site
18. Information Fl. Drașoveanu, Fl. Gogăltan
19. El Susi G., 2003, 138
20. Bökönyi S., 1985, 322
21. Bökönyi S., 1988, 124
22. Becker C., 1991, 187
23. Lazić M., 1992, 52
24. Medeleț F., 1993, 138
25. Haimovici S., 1968, 403
26. El Susi G., 2003, 145

27. Bökönyi S., 1962, 175-214
28. Personal data
29. Haimovici S., 1968, 93
30. Haimovici S., 1968, 190
31. El Susi G., 1996
32. El Susi G., 2002, 259-260; Haimovici S., 1968, Tab. III.
33. El Susi G., 2001, 225
34. Haimovici S., 1968, 191
35. El Susi G., 1996, 126
36. Haimovici S., 1968, 191; Bökönyi S., 1988, 126
37. Haimovici S., 1991, 161
38. El Susi G., 1994, 187
39. Haimovici S., 1968, 196

BIBLIOGRAPHICAL REFERENCES

- Becker C.**, 1991 *Haustierhaltung und Jagd in der frühen Bronze –und Eisenzeit in der Vojvodina. Erste Resultate zu Tierknochenfunde aus Feudvár, Zoologische Untersuchungen*, 178-198
- Bökönyi S.**, 1985 *Dating Experiments based on Animal Bones, Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften*, 14, Budapest, 71-79
- Bökönyi S.**, 1988 *Animal remains from the Bronze Age Tells of the Berettyó Valley, Inventaria Praehistorica Hungariae*, 123-135
- Choyke A.M.**, Bartosiewicz L., 1999 *Bronze Age animal exploitation in western Hungary, in Archaeology of the Bronze and Iron Age, Proceedings of the International Conference Százhalombatta, 3-7 october*, 239-249
- Colectiv** 1982 *Enciclopedia Geografică a României*, București, Ed. Academiei R. S. România
- El Susi G.**, 1994 *Rapport préliminaire sur le matériel faunique de l'établissement Vatina de Foeni (dép. Timiș)*, in *Analele Banatului S.N.*, III (1994), 184-192
- El Susi G.**, 1995 *Analiza resturilor de faună din așezarea de epoca bronzului de la Gornea-Păzăriște*, in *Analele Banatului S.N.*, IV (1995), 226-244
- El Susi G.**, 1996 *Vânători, pescari și crescători de animale în Banatul mileniilor VI. Î. Chr. – I d. Chr., Studii arheozoologice în sud-vestul Romaniei, Bibliotheca Historica et Arheologica Banatica*, T. 3, Timișoara, Ed. Mirton, 440 p.
- El Susi G.**, 1999 *Studiu preliminar asupra resturilor de faună din așezarea de epoca bronzului, cultura Verbicioara, Rogova (jud. Mehedinți)*, in *Drobeta*, IX (1999), 25-41
- El Susi G.**, 2001 *Cercetări arheozoologice în situl de la Foeni "Cimitirul Ortodox" (jud. Timiș). Fauna din nivelele de epoca bronzului*, in *Thraco-Dacica*, T. 22 (2001), 1-2, 223-237
- El Susi G.**, 2002 *Cercetări arheozoologice în așezarea de epoca bronzului de la Carei-Bobald (jud. Satu Mare)*, in *Thraco-Dacica*, 1-2, 243-265
- El Susi G.**, 2003 *Resturile de faună din nivelele Glina de la Ostrovul Corbului (jud. Mehedinți)*, in *Drobeta*, XIII (2003), 22-28.
- El Susi G.**, 2003 *Analogii și diferențe între economiile animaliere ale comunităților Vinča C și grupul Foeni din Banat*, in *Banatica*, 16/1 (2003), 135-151
- Gogâltan F.** 1994 *Cronica Cercetărilor Arheologice, campania 1993*, Satu Mare, 12-15 mai, 24
- Greenfield J. H.**, 1986 *The paleoeconomy of the Central Balkans (Serbia). A zooarchaeological perspective on the late Neolithic and Bronze Age (cca 4500 B.C.-1000 B.C.)*, in *BAR*, I.S., 304, I, II

- Haimovici S.**, 1968 *Observations concernant le matériel faunique découvert dans la station éponyme de la Culture Pecica (Le Bronze Moyen)*, in *Analele Științifice ale Univ. "Al. I. Cuza"*, Iași, S. II, T. XIV (1968), f. 1, f. 2, 401-408
- Haimovici S.**, 1968 *Caracteristicile mamiferelor domestice descoperite în stațiunile arheologice din epoca bronzului de pe teritoriul României*, in *Analele Științifice ale Univ. "Al. I. Cuza"*, Iași, S. II, T. XIV (1968), f. 1, 185-198
- Haimovici S.**, Gheorghiu Dardan G., 1970 *L'élevage et la chasse à l'Age du Bronze en Roumanie*, in *Des Actes du VII Congrès International Des Sciences Anthropologiques et Ethnologiques*, août, 1964, Moscou, 557-567
- Haimovici S.**, 1991 *Materialul faunistic de la Gîrbovăț. Studiu Arheozoologic*, in *Arheologia Moldovei*, XIV (1991), 153-166
- Haimovici S.**, 1997 *Studiul arheozoologic al unui lot de faună descoperit în stațiunea eponimă de la Glina*, in *Thraco-Dacica*, T. 18 (1997), 1-2, București, 231-238
- Lazić M.**, 1992 *The Contribution of archaeozoology Studies of the Economy of Prehistoric Social Communities*, in *Archaeology and Natural Sciences*, LXIV, 21, Beograd, 52-61
- Medeleț F.** 1993 *În legătură cu fortificația de pământ de la Cornești (comuna Orțișoara, județul Timiș)*, in *Analele Banatului*, SN, II (1993), 119-150
- Roman P.** 1996 *Istoricul cercetării. Săpăturile arheologice și stratigrafia, Ostrovul Corbului*, I. 1, București, 1-116

EXPLOATAREA ANIMALELOR ÎN EPOCA BRONZULUI ÎN SUD-VESTUL ROMÂNIEI CU REFERIRE SPECIALĂ LA OSTROVUL CORBULUI

Rezumat

Într-un material de sinteză se tratează aspectele legate de exploatarea animalelor în situri ale epocii bronzului din Câmpia Banatului, sudul provinciei și Ostrovul Corbului. Materialul prezintă în prima parte date generale legate de mărimea eșantioanelor, amplasarea biogeografică a siturilor respective. Se continuă cu prezentarea frecvenței speciilor în așezările menționate, apoi se tratează probleme legate de vârstele de sacrificare ale speciilor domestice. În final se insistă asupra taliei și conformației corporale a mamiferelor domestice.

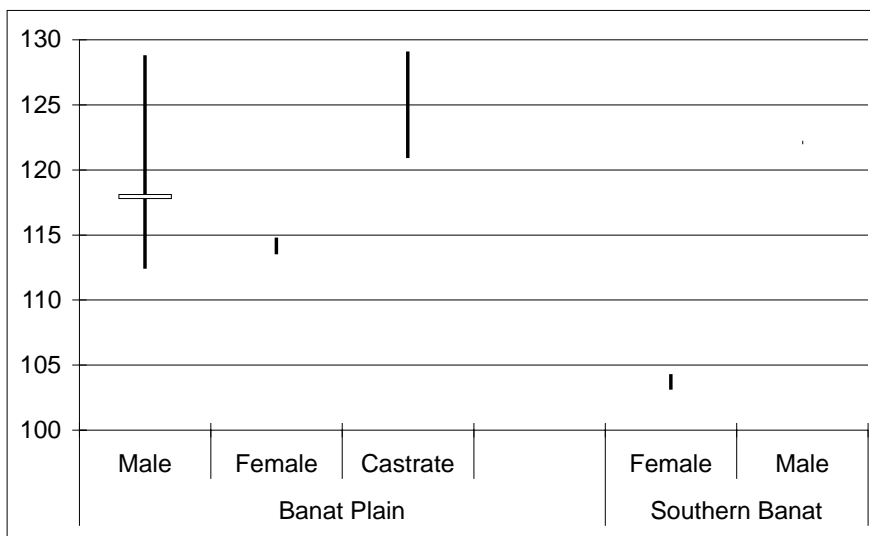


Fig. 1 - The cattle stature in SW Romania / Talia vitei în SV României

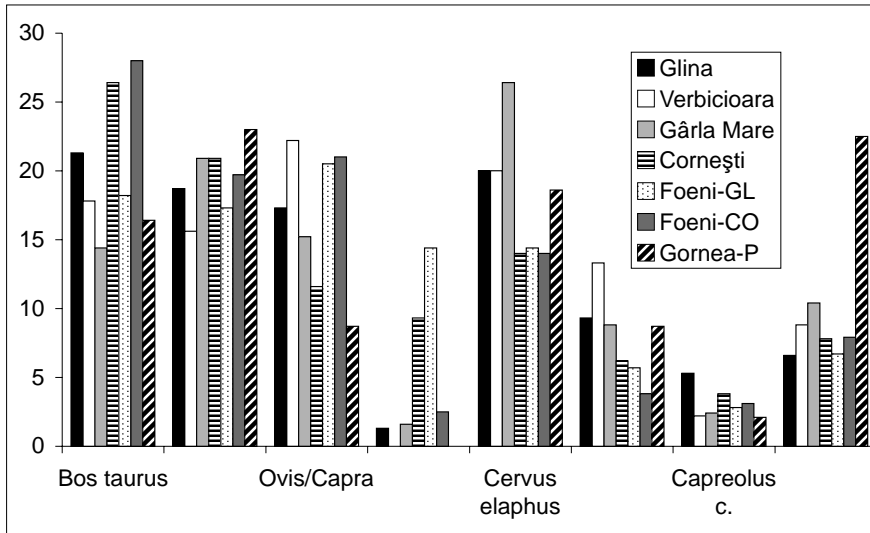


Fig. 2 – The species distribution in Bronze Age sites in SW Romania / Distribuția speciilor în așezări de epoca bronzului în SV României

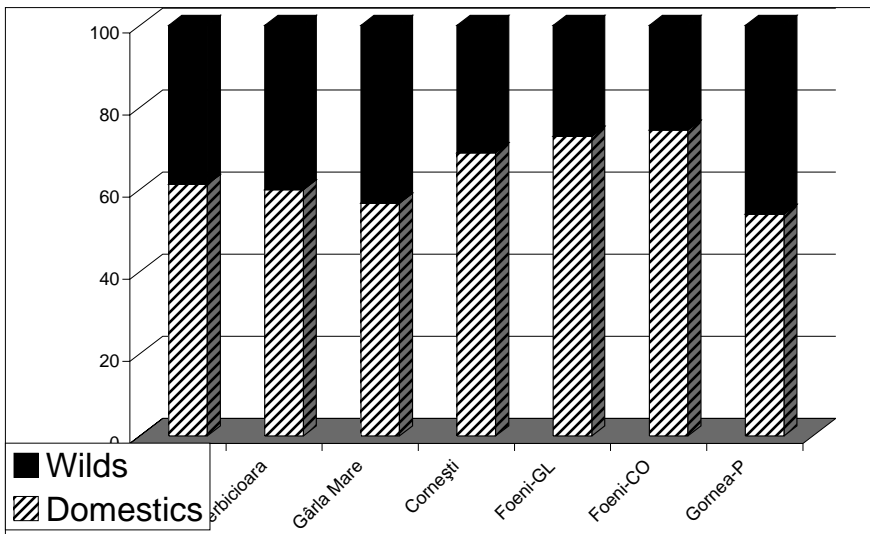


Fig. 3 – Domestic/ wild ratio in Bronze Age sites in SW Romania / Rata speciilor domestice-sălbatică în așezări de epoca bronzului în SV României