

PRELIMINARY ANALYSIS OF AN ARCHAEOZOOLOGICAL ASSEMBLAGE DISCOVERED IN THE CUCUTENI B SETTLEMENT FROM SĂRATA-MONTEORU (BUZĂU COUNTY)

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Abstract. The study evaluates the subsistence patterns present in the paleoeconomy of the site from Sărata-Monteoru (Buzău County), in terms of taxonomic diversity and of strategies of animal capitalization via husbandry and hunting. Among the animal resources identified, mammals constitute the majority, representing 99.7% of the assemblage. Animal husbandry was an important subsistence activity (78.18% of mammal remains are from domestic ones); wild mammals' remains are present, too, representing 21.25% of the total identified mammals' remains in the assemblage; the horse remains, probably wild, are less frequent (0.57%). The identified domestic mammals are cattle (*Bos taurus*), pig (*Sus scrofa domesticus*), sheep (*Ovis aries*), goat (*Capra hircus*) and dog (*Canis familiaris*). Cattle dominate the assemblage and sheep-goat group comes second while pig third. A variety of wild mammals' species have been identified. Within the group of mammals, the artiodactyls, large sized animals providing meat, are better represented: red deer (*Cervus elaphus*), wild boar (*Sus scrofa ferus*) and aurochs (*Bos primigenius*); other wild species with low frequency are: fox (*Vulpes vulpes*), wolf (*Canis lupus*), wild cat (*Felis silvestris*), hare (*Lepus europaeus*) and beaver (*Castor fiber*).

Keywords: archaeozoology, phase B Cucuteni Culture, Sărata-Monteoru, paleoeconomy, mammals.

Rezumat. Analiza preliminară a unui eșantion arheozoologic provenit din așezarea Cucuteni B de la Sărata Monteoru (județul Buzău). Studiul evaluează resursele animale utilizate în paleoeconomia așezării de la Sărata Monteoru (județul Buzău), atât din punct de vedere al diversității taxonomice cât și prin prisma strategiilor de valorizare a lor prin vânătoare și creșterea animalelor.

În cadrul resurselor animale identificate, mamiferele sunt majoritare, reprezentând 99.7% din întregul eșantion. Creșterea animalelor a fost o ocupație importantă (78.18% din totalul resturilor de mamifere aparțin celor domestice); sunt prezente deasemenea și resturi de la mamiferele sălbatice, care reprezintă 21.25% din totalul resturilor de mamifere identificate; resturile de cal, care probabil era sălbatic, au o frecvență redusă (0.57%). Speciile de mamifere domestice identificate sunt: *Bos taurus* (vita domestică), *Sus scrofa domesticus* (porcul domestic), *Ovis aries* (oaia), *Capra hircus* (capra) și *Canis familiaris* (câinele). Vita domestică este dominantă în eșantion, grupul ovicaprinelor se plasează pe locul secund și porcul pe al treilea. Lista speciilor de mamifere sălbatice este diversă; din grupul mamiferelor, artiodactilele de talie mare, care oferă o mare cantitate de carne, sunt cel mai bine reprezentate: cerbul (*Cervus elaphus*), mistrețul (*Sus scrofa ferus*) și bourul (*Bos primigenius*); alte specii, care au o frecvență redusă, sunt: vulpea (*Vulpes vulpes*), lupul (*Canis lupus*), pisica sălbatică (*Felis silvestris*), iepurele (*Lepus europaeus*) și castorul (*Castor fiber*).

Cuvinte cheie: arheozoologie, cultura Cucuteni faza B, Sărata-Monteoru, paleoeconomie, mamifere.

Introduction

Sărata-Monteoru (Buzău County) settlement is placed in an intrahill depression (45°8' N; 26°39' E), at the South-Eastern Curvature Subcarpathians, between hills covered with rich vegetation and sheltered from winds. In Sărata-Monteoru archaeological discoveries that have been made over time, were attributed to several epochs: the oldest traces dates from the Chalcolithic, but the most important dates from the Bronze Age (Zaharia, 2000).

This study provides preliminary archaeozoological data concerning the subsistence in a prehistoric community situated at the south-eastern extremity of the Cucuteni culture spreading area. The Cucuteni culture is a late Neolithic archaeological

culture (Chalcolithic) which developed in V-IV millennia BC, from Carpathian Mountains to the Dniester and Dnieper regions. Previous archaeozoological papers for the Cucuteni *B* period discuss the fauna discovered in the eastern part of Romania: Valea Lupului (Haimovici, 1962), Cucuteni (Haimovici, 1969; Haimovici, 2004), Mitoc (Haimovici, 1986), Ghelăiești (Haimovici & Stan, 1986), Mihoveni (Haimovici, 2001), Liveni (Haimovici & Ungureanu, 2002), Fetești (Cavaleriu & Bejenaru, 2007), Poduri (Bejenaru *et al.*, 2009).

Material and Methods

The material under study comes from the Cucuteni *B* level of Sărata-Monteoru site (Buzău County). The assemblage is constituted by bone fragment, antler, and teeth - materials resistant during the time in the sediment.

The faunal remains analyse was achieved in the Laboratory of Animal Morphology, Faculty of Biology Iasi. Methodology was specific to archaeozoology and consists of anatomical and taxonomical identifications (by using the comparative bone collection from the laboratory), encoding and quantification of data (Udrescu *et al.*, 1999).

Results and Discussion

In the archaeozoological assemblage the majority of the faunal remains have a domestic origin, as food remains. Sărata-Monteoru sample include two fragments from birds, one fish remain and 1084 remains from mammals (representing 99.7%). To these are added 11 human remains, but not take in discussion in the following analysis. Of the 1084 mammal remains were identified 880 specific, 204 other remains are the fragments of long and wide bones, skull, vertebrae and rib fragments for which no specific diagnosis could be achieved, which were attributed to group mammals.

In the Sărata-Monteoru assemblage there have been identified 880 mammal remains, corresponding to 103 individuals.

Table 1. Quantification of animal remains ((NISP – number of identified specimens).

Group	NISP	%
Fish	1	0.09
Birds	2	0.18
Mammals	1084	99.72
Total animal remains	1087	100
<i>Homo sapiens</i>	11	-
Total assemblage	1098	-

Domestic mammals present a high proportion in the assemblage, 78.18% of the identified mammal remains, showing the animal husbandry as an important subsistence activity in the Cucuteni *B* settlement of Sărata-Monteoru. Mammal husbandry was also an important subsistence activity during Cucuteni *B* period in settlement of eastern Romania, the percentage of domestic mammal remains varying between 70.28% at Mitoc (Haimovici, 1986) and 87.87% at Mihoveni (Haimovici, 2001). As in all the Cucuteni *B* samples that have been previously analysed, the cattle (*Bos taurus*) remains are dominant (275 remains), considering both the number of identified remains (31.25%) and the minimum number of individuals (33.98%); sheep and goat (*Ovis aries* and *Capra hircus*) and pig (*Sus scrofa domesticus*) come on the second respectively third place with 28.07% and 16.25% (of the identified mammal remains). *Canis familiaris* do not have economical importance.

Wild mammals' remains represent 21.25%. There have been identified nine mammal species, as follow: red deer (*Cervus elaphus*), wild boar (*Sus scrofa ferus*), roe

deer (*Capreolus capreolus*), fox (*Vulpes vulpes*), wolf (*Canis lupus*), wild cat (*Felis silvestris*), hare (*Lepus europaeus*) and beaver (*Castor fiber*). As game species, red deer (*Cervus elaphus*) is dominant with 60 remains (6.82%); the wild boar (*Sus scrofa ferus*) comes on the second place with 54 remains (6.14%) and the aurochs (*Bos primigenius*) on the third (2.27%); the other wild mammals are sporadic in the assemblage. In the Cucuteni B samples from eastern Romania, the red deer is also dominant as wild species; excepting the assemblage from Liveni (Haimovici & Ungureanu, 2002) with a higher frequency of aurochs. The relative large list of game species indicates a rich environmental resource use by hunting.

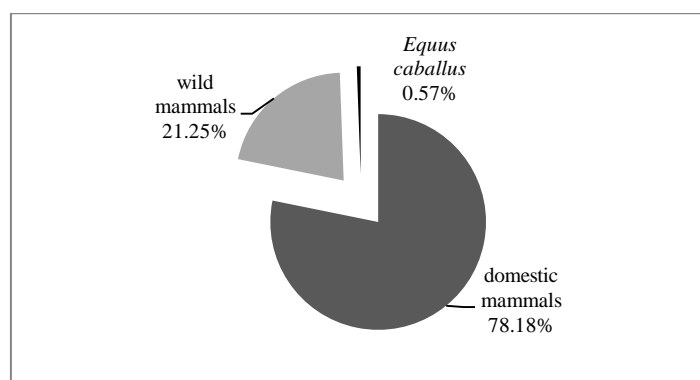


Figure 1. Proportions wild/domestic mammal remains.

Table 2. Quantification of mammal remains (NISP – number of identified specimens, MNI – minimal number of estimated individuals).

Species	NISP	MNI
<i>Bos taurus</i>	275	35
<i>Ovis aries/Capra hircus</i>	247	20
<i>Sus scrofa domesticus</i>	143	10
<i>Canis familiaris</i>	23	3
Total domestic mammals	688	68
<i>Bos primigenius</i>	20	4
<i>Cervus elaphus</i>	60	12
<i>Capreolus capreolus</i>	6	2
<i>Sus scrofa ferus</i>	54	9
<i>Canis lupus</i>	5	1
<i>Vulpes vulpes</i>	20	2
<i>Felis silvestris</i>	3	1
<i>Lepus europaeus</i>	18	1
<i>Castor fiber</i>	1	1
Total wild mammals	187	33
<i>Equus caballus</i>	5	2
Total identified mammals	880	103

From ecological point of view, the list of the identified hunted mammals suggests the priority exploitation of the forest biotope; the forest mammal remains (*Cervus elaphus*, *Sus scrofa ferus*, *Felis silvestris*) are dominant among the wild species. An extinct species, *Bos primigenius*, and a disappeared species from the Romanian fauna, *Castor fiber*, were archaeozoologically identified. *Cervus elaphus*, *Felis silvestris* considered as present day Carpathian, appear in this period with a large distribution and a high frequency on the Romanian territory.

The horse has a low proportion in the assemblage (0.57%); this species was not integrated into one of two mammal categories (domestic and wild) because it is not sure if at that time was or not a domestic species.

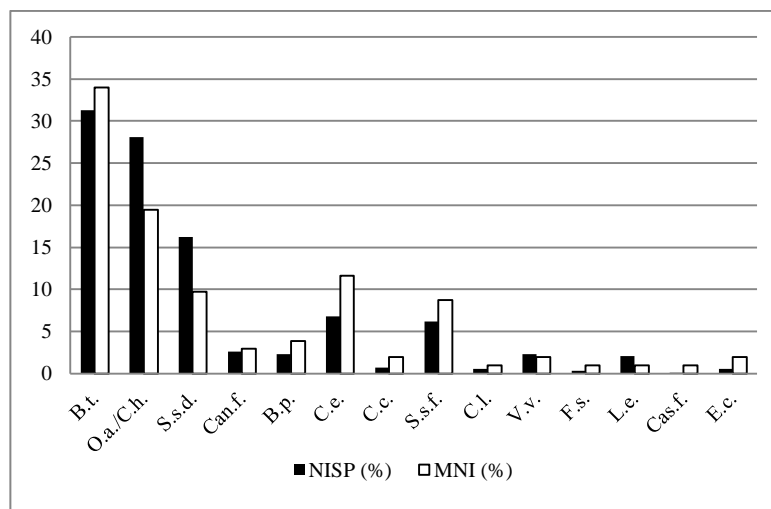


Figure 2. Proportions of mammal remains (% NISP and % MNI).

B.t. – *Bos Taurus*; O.a./C.h. – *Ovis aries/Capra hircus*; S.s.d. – *Sus scrofa domesticus*; Can.f. – *Canis familiaris*; B.p. – *Bos primigenius*; C.e. – *Cervus elaphus*; C.c. – *Capreolus capreolus*; S.s.f. – *Sus scrofa ferus*; C.l. – *Canis lupus*; V.v. – *Vulpes vulpes*; F.s. – *Felis silvestris*; L.e. – *Lepus europaeus*; Cas.f. – *Castor fiber*; E.q. – *Equus caballus*.

Conclusions

This study shows that the subsistence activity in the Cucuteni B settlement of Sărata-Monteoru is similar to those discovered in the eastern part of Romania.

The archaeozoological analyse shows that the animal husbandry represented an important alimentary source for the Cucuteni B settlement of Sărata-Monteoru. The majority of mammals' remains proceed from the domestic ones. The cattle remains are the most frequent in the mammal category. Nine wild species were identified and the red deer appears the most hunted species. Farming and hunting, sometimes excessive in the area, from prehistoric and historic periods, resulted in reduction and fragmentation of forest areas; this phenomenon was the consequence for reducing the spread areas of some mammal species (*Cervus elaphus*, *Felis silvestris*) or disappearance of others (*Bos primigenius*, *Castor fiber*).

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