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THE IMPORTANCE OF DOMESTIC MAMMALS DURING THE BRONZE AGE IN ROMANIA

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This study concerns the Bronze Age cultures (including also the transition Neolithic-Bronze Age), which occupied the Carpatho-Danubian basin, on the territory of present day Romania. The study is focused on subsistence as reflected by archaeozoological analyses. Previous archaeozoological papers concerning the Bronze Age period discuss the fauna discovered in different parts of the country (Haimovici, 1964; El Susi, 1996; Bindea, 2008). Mammal remains of the Bronze Period in Romania are described in terms of their frequencies based on the NISP (number of identified specimens). The regions of Romania that have yielded suitable Bronze Age fauna for archaeozoological analyses are: Moldavia (12 samples), Transylvania (14 samples), Banat (3 samples), and Muntenia with Oltenia (5 samples). A number of 11 assemblages of transition period (Neolithic-Bronze Age) have been also considered in this study.

Bronze Age in Romania is divided into the Early Bronze Age, (3500-2200 BC), Middle Bronze Age (2200-1600/1500 BC) and Late Bronze Age (1600/1500-1100 BC).

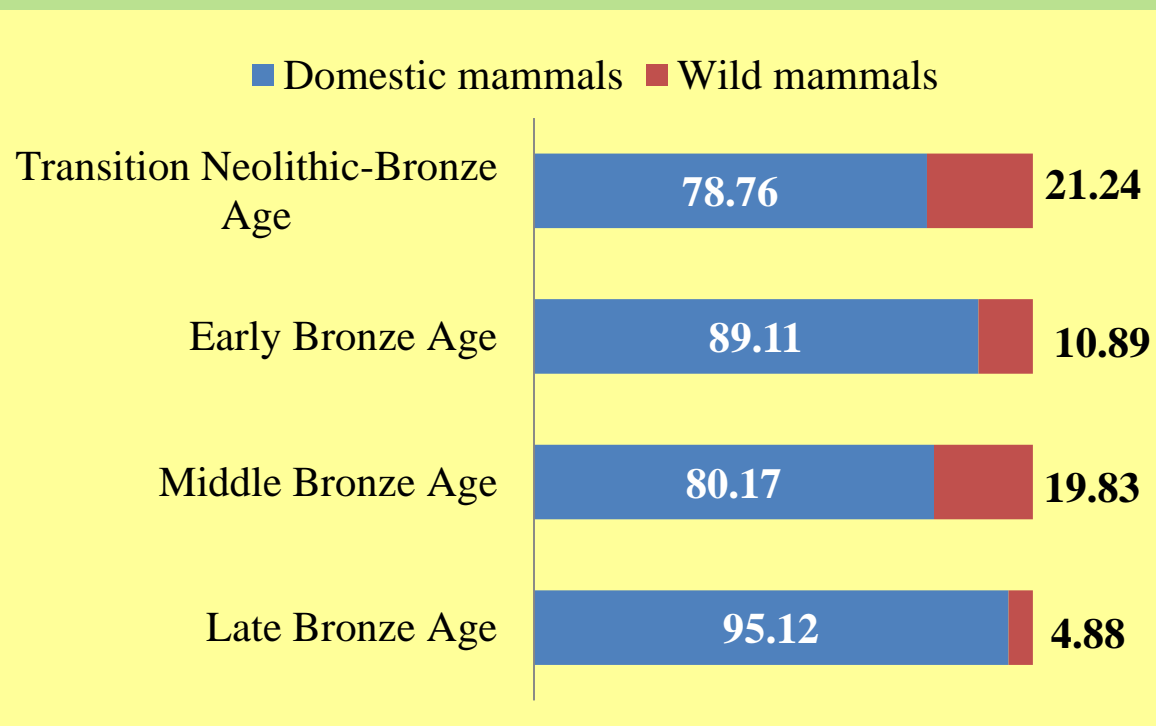


Periods (Vulpe, 1996)	Cultures with archaeozoological samples
Transition Neolithic-Bronze Age (3800-3500 BC)	Foltesti, Horodistea, Erbiceni, Cernavoda
Early Bronze Age (3500-2200 BC)	Cotofeni, Iernut, Glina, Gornea- Orlești, Livezile
Middle Bronze Age (2200-1600/1500 BC)	Otomani, Vatina, Monteoru, Tei, Wietenberg, Verbicioara, Pecica, Costișa
Late Bronze Age (1600/1500-1100 BC)	Noua

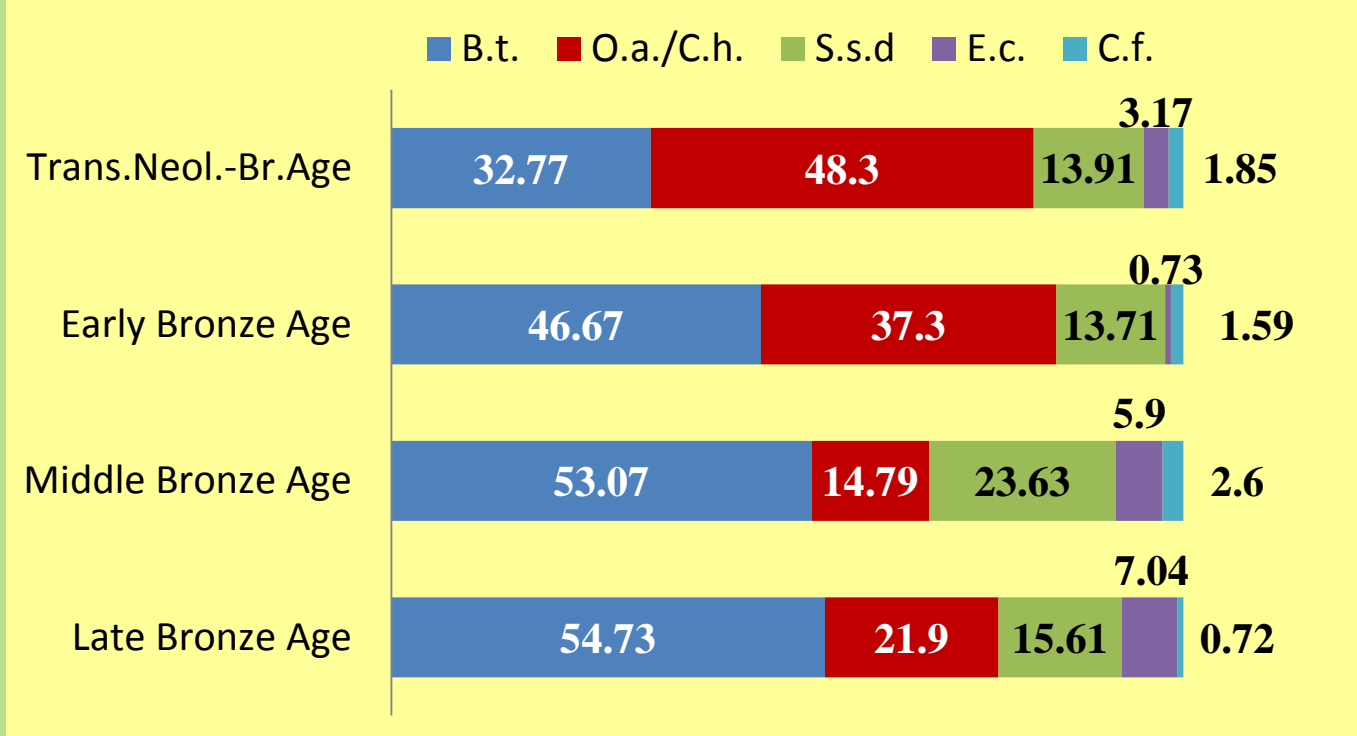
Archaeozoological studies in Romania have addressed questions mainly related to subsistence practices such as animals identified in each site, proportion of domestic versus wild fauna, and animal use.

Among the animal resources, domestic mammals constitute the majority. Animal husbandry was an important subsistence activity during Bronze Age in Romania, but wild mammal remains are still present, even if only in smaller amounts.

The identified domestic mammal species are: cattle (*Bos taurus*), sheep (*Ovis aries*), goat (*Capra hircus*), pig (*Sus scrofa domestica*), horse (*Equus caballus*) and dog (*Canis familiaris*).



Species \ Period	<i>Bos taurus</i> NISP	<i>Ovis/ Capra</i> NISP	<i>Sus s. domesti cus</i> NISP	<i>Equus caballus</i> NISP	<i>Canis famili aris</i> NISP	Total domestic mammals NISP	Total identified mammals NISP
Transition Neolithic-Bronze Age	1260	1857	535	122	71	3845	4882
Early Bronze Age	1794	1434	527	28	61	3844	4314
Middle Bronze Age	9703	2704	4320	1079	476	18282	22803
Late Bronze Age	8532	3414	2433	1098	112	15589	16389



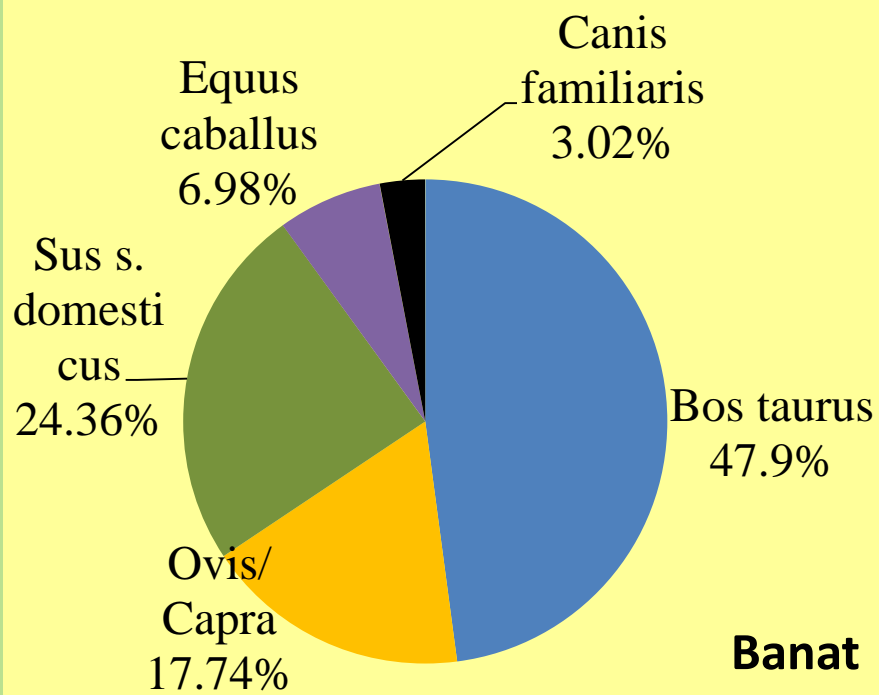
The percentages of domestic mammals vary from one period to another: from 78.76% in transition Neolithic-Bronze Age, to 95.12% in Late Bronze Age.

A summary of archaeozoological studies, made in Romania for Bronze Age, shows that regional variation characterizes the assemblages.

Species \ Region	<i>Bos taurus</i> NISP	<i>Ovis / Capra</i> NISP	<i>Sus s. domesti cus</i> NISP	<i>Equus caba llus</i> NISP	<i>Canis famili aris</i> NISP	Total domestic mammals NISP	Total identified mammals NISP
Banat	810	300	412	118	51	1691	2556
Modavia	9302	2497	1769	807	170	14545	15293
Muntenia and Oltenia	1196	509	284	45	25	2059	2181
Transylvania	8721	4246	4815	1235	403	19420	23476

Cattle dominate the assemblages in Bronze Age, especially in the second half of period. Sheep-goat is dominant in the transition period, and then comes on the second place, excepting in the Middle Bronze Age when the pig comes on the second place.

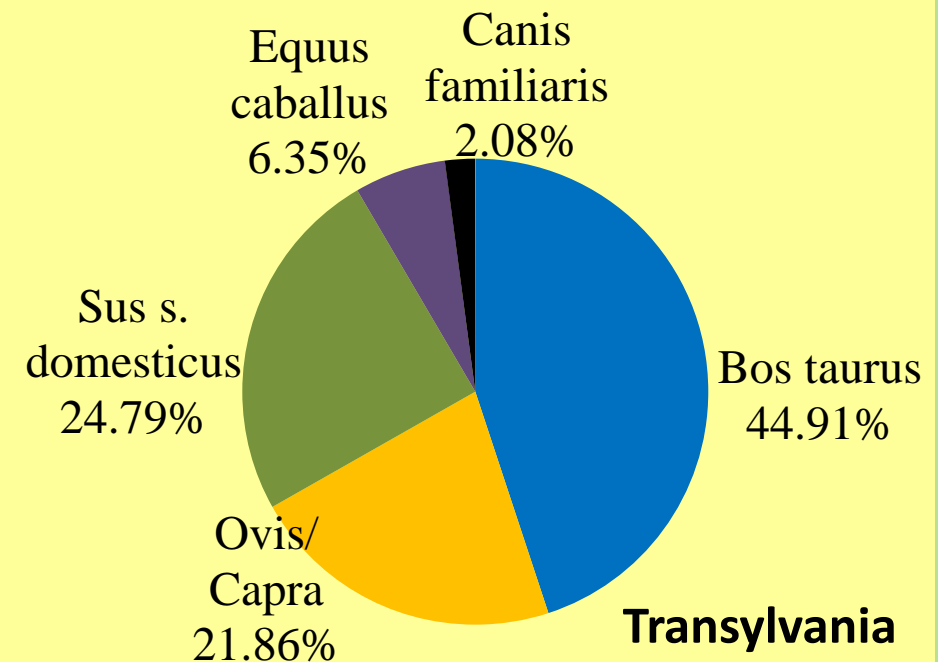
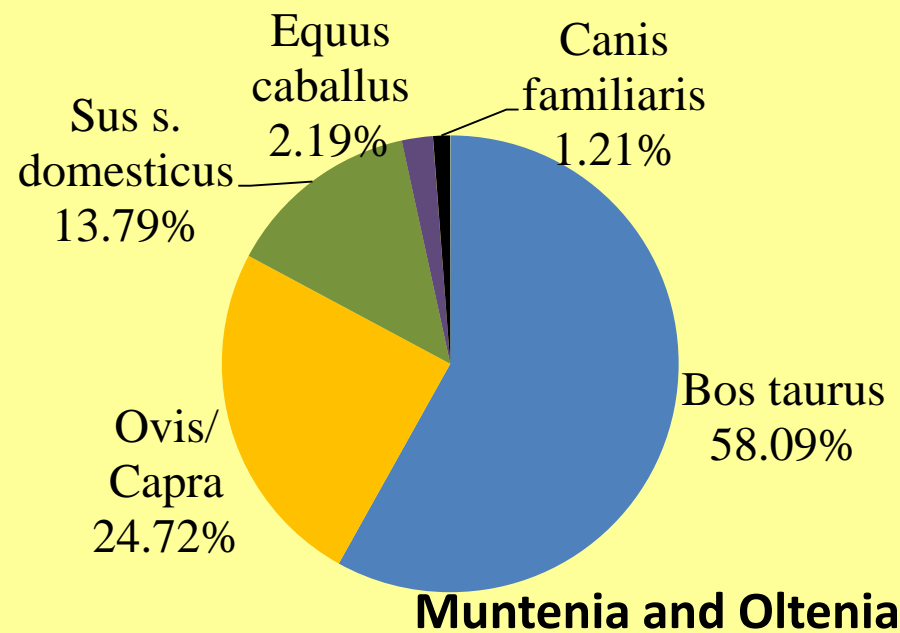
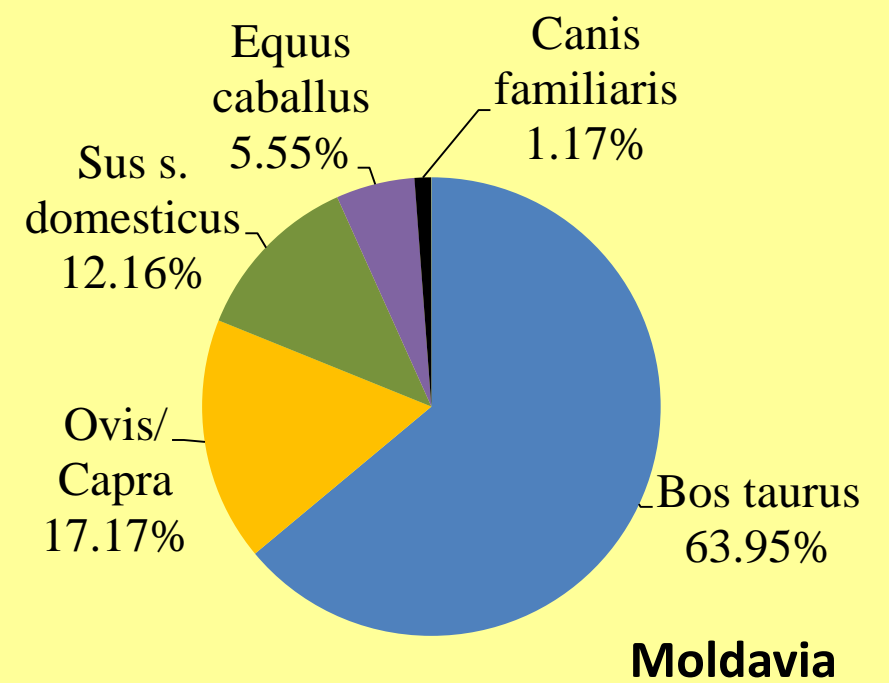
The remains of horse are generally less frequent, but their relative frequency increases towards the end of Bronze Age (7% NISP).



In Moldavia, Muntenia and Oltenia, the settlement were more oriented toward cattle husbandry (over 60% NISP); sheep-goat is on the second place, and pig on the third.

In Transylvania and Banat, cattle is also dominant but with a lower frequency (about 46% NISP); pig is on the second place, and sheep-goat on the third.

Horse could be associated to differences in social status; it has low proportion of remains: 2% in Muntenia and Oltenia, and a higher average value (6%) in Moldavia, Transylvania and Banat.



Conclusions

Animal husbandry was of great importance during Bronze Age in Romania, especially towards the end of period. The domestic mammals raised were cattle, sheep, goat, pig, horse and dog; their frequencies in the archaeozoological samples vary from one period to another, as well as from one region to another, due to cultural and to local environmental factors. Cattle were generally the most frequent species.

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