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Archaeology of food and drink

Meat as food, offering and identity

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Meat Consumption during Medieval Times: Case Study of Soroca Fortress (Republic of Moldova)

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Soroca is known as one of Medieval border fortress placed on the Easter border of the Moldovan state (Fig. 1). The fortress was involved in various military conflicts during 16th-18th centuries.
The Medieval fortress of Soroca is located on the right bank of the Nistru River, in the vicinity of an old shoal of the river. The first documentary mentions of Soroca Fortress belong to the beginning of the 16th century.

The stone fortress of Soroca has a circular plan, being provided with five towers, located equidistant. The cortile is a circle with a diameter of 30.5 m. The walls do not have other gaps than the gangway entry situated on the ground floor of the gate-tower tower rectangular-shaped (Nesterov, 2007). The recent and 1950-1960´s excavations (Čebotarenko, 1972) show different stages of its development.

In October-November 2012 and May-July 2013, researchers from Ion Creangă State Pedagogical University, National History Museum of Republic of Moldova and Archaeological Centre of the Institute of Cultural Heritage (Science Academy of Moldova) have carried out investigations in the Medieval fortress of Soroca (Fig. 2).
The archaeological investigation from 2012 has been carried out inside the fortress, into Casemate no. 5 and Tower no. 1.

Figure 1. Map showing the location of the Soroca Fortress in Republic of Moldova.

In the Casemate 5, medieval cultural layers have been investigated up to 450 cm. An important sample of ceramics has been identified, that belongs somewhere between the 15th and the 17th century. Remains of a wood and earth fortress have been also identified here.
In the Tower 1, investigations have been carried out up to 1030 cm. A wood and earth fortress has been discovered under the layers of debris, that dates back to the period of edifying the stone fortress.
During May-July 2013, archeological excavations have been carried out in extramural zone of the fortress.

The faunal remains discovered in 2012 have been analyzed by archaeozoologists from Alexandru Ioan Cuza University of Iași, Romania, and the sample discovered in 2013 will be analyzed as soon as possible .
Animal remains discovered in the 2012 archaeological campaign, at the Soroca Fortress, are described in terms of frequencies (NISP - number of identified specimens), aging and taphonomy.

The archaeozoological sample is represented by household wastes. This may be proved by the many butchering traces identified on the bone fragments. A very small number of bone remains shows teeth marks of animals that were consuming bones (in particular dogs), which indicates a good management of household waste inside the fortress.

Figure 2. Recent archaeological investigation in Soroca Fortress.

Table 1. Quantification of animal remains discovered in 2012.

Taxon		Casemate 5		Tower 1	
		NISP	%	NISP	%
Bos taurus	Cattle	148	17.31	115	36.74
Ovis aries / Capra hircus	Sheep / Goat	175	20.47	52	16.61
Sus domesticus	Pig	214	25.03	52	16.61
Equus caballus	Horse	3	0.35	-	-
Canis familiaris	Dog	5	0.58	-	-
Felis catus	Cat	1	0.12	-	-
Gallus domesticus	Hen	21	2.46	3	0.96
Total domestic		**567**	**66.32**	**222**	**70.93**
Capreolus capreolus	Roe deer	5	0.58	-	-
Sus scrofa ferus	Wild boar	1	0.12	-	-
Lepus europaeus	Hare	7	0.82	1	0.32
Total wild		**13**	**1.52**	**1**	**0.32**
Unidentified mammals		211	24.68	79	25.24
Aves	Birds	8	0.93	3	0.96
Pisces	Fish	34	3.98	2	0.64
Unio sp.	River mussels	22	2.57	6	0.92
Total		**855**	**100**	**313**	**100**

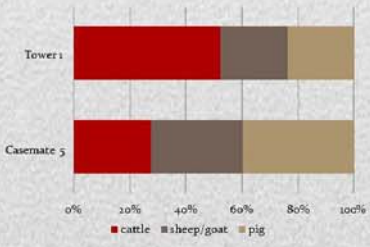


Figure 3. Frequencies (% NISP) of cattle, sheep/goat and pig remains.

The archaeozoological study highlighted four meat resources for the inhabitants of the fortress. Expressed in terms of local economy, these are: livestock farming, hunting, fishing and mollusk gathering(Table 1).
Mollusk gathering is represented by fragments of river mussel shells, identified in low proportions: 2.57% in Casemate 5 and 0.92% in Tower 1.
Fishing, generally undervalued in the archaeozoological studies due to scattering factors and incomplet recovery of skeletons, recorded small percentages in Casemate 5 (3.98%) and in Tower 1 (0.64%). Fish species with high nutritional value (sturgeon, catfish, pike) have been identified only in Fortification 5.
Hunting of mammals has a very low rate (1.52% in Casemate 5 and 0.32% in Tower 1). There are only 3 wild mammals identified: the roe deer, the wild boar and the hare. The first two appear only in Casemate 5, and the hare in the two assemblages. From the paleoecological point of view, we could appreciate that mammal hunting was practiced nearby, in the forest-skirts area, whereas both hare and roe deer, which predominate in number of remains, are animals of forest-skirts and open field.
Livestock farming is represented by 66.32% remains in Casemate 5 and 70.93% in Tower 1. Domestic mammals with highest frequency are cattle, sheep/goat and pig. The ratio between these three groups of domestics varies: pig remains prevail in Casemate 5 and those of cattle in Tower 1.

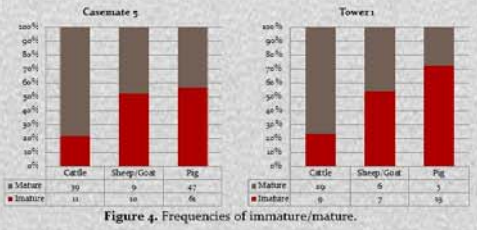
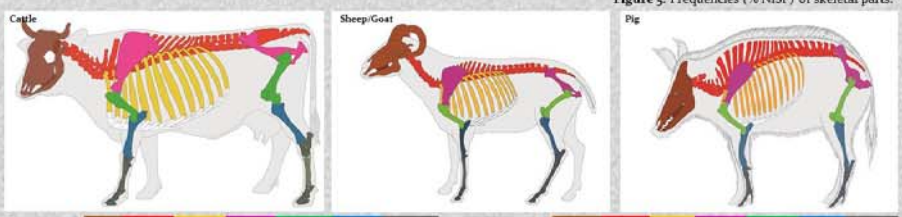


Figure 4. Frequencies of immature/mature.

In what the livestock management is concerned, the rules that were applied are similar in the two samples assemblages, and are varied from one species to another, according to whether the main interest was focused on the primary products (especially meat) or on the secondary products (milk, wool, draft force, offspring). Cattle were slaughtered predominantly as matures, pig as immatures, and sheep/goat as matures and immatures almost in equal measure (Fig. 4).

Figure 5. Frequencies (% NISP) of skeletal parts.



Casemate 5							
Cattle	7.94%	11.90%	42.27%	11.90%	11.11%	4.76%	11.11%
Sheep/Goat	4.57%	1.14%	77.71%	4.00%	5.71%	3.42%	3.42%
Pig	20.77%	13.52%	9.17%	9.17%	8.21%	10.14%	28.98%

Tower 1							
Cattle	10.43%	22.60%	29.56%	15.65%	6.08%	6.95%	8.69%
Sheep/Goat	5.76%	7.69%	55.76%	13.46%	5.76%	1.92%	9.61%
Pig	7.69%	19.23%	36.53%	7.69%	5.76%	7.69%	15.38%

The anatomical distribution of the skeletal fragments points out, with variable frequencies (due primarily to fragmentation and to the differentiated preservation), the presence of remains from all the regions of the body, indicating that the butchering was practiced even inside the fortress (Fig. 5).

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