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Original Scholarly Work

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FAUNAL REMAINS IN CELTIC FORTRESSES AND INDIGENOUS SETTLEMENTS

Abstract. – Statistical analysis of the results of archaeozoological research into animal remains at Celtic and indigenous population sites in Srem and Vojvodina, showing that the breeding of domestic animals played a more important role than hunting.

Based on the research of the fauna remains in Celtic fortresses and indigenous settlements, we can say for certain that the breeding of domestic animals was more important than hunting and fishing. The most important domestic animal was the cattle, followed by the sheep/goat and pig, while the dog, horse and hen were less present. Primitive forms (low withers) speak of the low level of the manner of breeding. Although hunting was a secondary occupation, the abundance of wild life points to favorable dwelling conditions.

Over the past 15 years, archeozoological research has been conducted on several sites of Celtic fortresses and indigenous settlements. These are: "Turski šanac" at Bačka Palanka, "Gomolava" at Hrtkovci, "Gradina" on the Bosut, "Čarnok" near Vrbas and important sites along the route of highway E–70 through Srem (Bare, Voganj; Tromeđa, Pećinci; Livade, Sremska Mitrovica; Velike Livade, Sremska Mitrovica; Bregovi, Atovac; and Vrtlozi, Šimanovci).

Among these sites, the oppida and small indigenous settlements are distinguishable.

Based on the information gathered from these sites, the breeding of domestic animals played a more important role than hunting. The most important domestic animal was the cattle, followed by the sheep/goat and pig, while the dog, horse and fowl were less present. The rare hunting was confined to red deer, boar and roe deer.

Differences that exist in view of these sites concern chiefly the order, i. e. importance, of domestic animals as shown in tables 1 and 1/a.

The Celtic cattle had the lowest withers, which barely exceed 110 cm in height. The information was ascertained in the average values of the materials studied. Thus at Gomolava, the following values were measured of the height of the domestic cattle withers – 92, 101, 102, 103, 104, 105, 106, 107, 109, 113, 114, 115 and 116 cm. At the oppidum Čarnok, the withers of the cattle were measured at 107 and 109 cm. The heights of the withers of two samples from Bosut were 107 and 105 cm. In the samples at the sites in Srem, the cattle were measured 106 to 111 cm. In addition to these samples, the bones of the metacarpus and metatarsus of larger dimensions, which belonged to the improved Roman sort, were also found. The height of their withers ranges from 122 to 134 cm.

The remains of domestic pig show the average value of the height of its withers to be 68 cm, which is lower than values cited in literature. This trait was used to facilitate differentiation from the wild boar.

Between sheep and goats, sheep are more frequent, both with and without horns. Based on the entire long bones of the sheep, the height of the withers was calculated from 51 to 69 cm. Individual samples of large twisted horns determine the male in the flock.

Among the bones of the goats, in addition to the entire long bones, exceptional samples of the skull with horns of the type known as "prisca" occupy a particular place.

The remains of horses are mainly represented with entire bones or skeletons. This has enabled the measuring of a large number of bones to be compared to information from literature. The withers of horses at Gomolava range from 123 to 133 cm; at Čarnok from 112 to 133 cm, and 123 cm in the site of Bregovi, Atovac. Based on the bones preserved, it could be inferred that the horse was employed only for transportation.

Authors who studied the evolution of horses in the Eurasian expanses, particularly from the earlier Iron Age, divide them into two groups: eastern and western. Detailed studies of osteologic materials from the earlier Iron Age in the central European region and the Asian part of Russia show eastern horses to be larger, with the height of their withers between 136 and 138 cm, and the western lower by some 10 cm. The frontier between the two populations is the line Vienna – Venice. Scythian horses are the typical representative of the eastern group, and Celtic horses of the western group.

The largest number of canine remains belonged to mixed populations, which is apparent from the heterogeneous heights of the withers. At Čarnok, a dog skeleton was found in a closed whole, whose average value of the height of its withers amounted to 54.3 cm (Harcourt, 1974), i. e. 54.3 cm (Koudelka, 1884). Based on the measures of the long bones of the dog at Gomolava, the height of the withers ranged between 35 and 47 cm. The information could indicate the beginning of the development of the earliest races. According to the results of Bökönyi (1974, 1984), whose research focused in particular on the origin of the dog, the previous heights of the animal's withers could correspond to his groups IV and III.

Remains of domestic fowl emerged for the first time in the Celtic sites, and thus present a characteristic of fauna in this period. The individual probably weighed about one kilogram, and their frequency in the sites in question range from 0.5 to 2.0 percent.

A large number of the domestic animals studied present rather primitive forms, to which the heights of their withers testify, which also indicates a lower level of breeding.

Although hunting was not very important, 11 sorts of vertrebrate fauna ascertained, with the red deer, boar and roe deer dominating, indicate favorable dwelling conditions and abundant wildlife. In the waters surrounding the fortresses, the populations also engaged in fishing, though insignificantly, of the most important sorts (carp, pike and sheat-fish).

Table 1. List of ascertained animal sorts in Celtic fortresses and indigenous settlements

Sheep (Ovis aries)	Wild boar (Sus scrofa)
Goat (Capra hircus)	Bear (Ursus arctos)
Cattle (Bos taurus)	Fox (Vulpes vulpes)
Pig (Sus domesticus)	Brown hare (Lepus europaeus)
Horse (Equus caballus)	Beaver (Castor fiber)
Domestic hen (Gallus gallus dom.)	Pike (Esox lucius)
Dog (Canis familiaris)	Carp (Cyprinus carpio)
Aurochs (Bos primigenius)	Cat fish (Silurus glanis)
Red deer (Cervus elaphus)	Unio pictorum
Roe deer (Capreolus capreolus)	Helix pomatia

Table 1/a. The presence of domestic and wild sorts according to the sites: Gomolava (1), Čarnok (2), Turski šanac (3), Bosut (4), Bare, Voganj (5), Gajić, Adaševci (6), Livade, Sremska Mitrovica (7), Bregovi, Atovac (8), Vrtlozi, Šimanovci (9), Mitrovačke livade, Sremska Mitrovica (10).

	Species	1	2	3	4	5	6	7	8	9	10
1	Bos taurus	34.23	22.52	55.1	31.56	41.66	40.74	28.57	37.74	51.20	49.72
2	Ovis/Capra	26.03	21.29	13.8	25.23	18.62	33.33	34.28	29.50	6.02	19.23
3	Sus domesticus	28.69	13.43	14.42	28.13	8.82	11.11	17.78	13.11	9.03	18.31
4	Equus caballus	1.53	7.15	6.8	3.28	24.02	3.70	11.58	4.92	20.48	
5	Gallus gallus dom.	0.49	0.87		0.48	0.49			1.64		2.00
6	Canis familiaris	2.46	4.36		3.28	0.49	3.70	8.57	3.28	6.06	3.52
7	Cervus elaphus	3.18	13.08	17.20	5.18	5.39	7.40	1.43	3.28	3.61	4.22
8	Sus scrofa	0.86	5.06		2.05			0.63	1.64	1.80	
9	Capreolus c.	0.35	1.57		1.10			1.43	1.64	1.80	
10	B. primigenius	0.09	0.35		0.25						
11	Ursus arctos		0.17								
12	Vulpes vulpes		0.02								
13	Lepus capensis	0.53	8.03								
14	Esox lucius	0.09	0.35		0.30						
15	Cyprinus carpio	0.31	0.87		0.15				1.64		
16	Silurus glanis	0.04	0.69		0.15				1.64		
17	Helix pomatia					0.49					0.50
18	Castor fiber										2.00
19	Unio pictorum										0.50

ОСТАЦИ ФАУНЕ У КЕЛТСКИМ УТВРЂЕЊИМА И ДОМОРОДАЧКИМ НАСЕЉИМА

Резиме

У току последњих 15 година зооархеолошки је истражено неколико локалитета келтских утврђења и домородачких насеља. То су археолошки локалитети: Турски шанац код Б. Паланке, Гомолава код Хртковаца, Градина на Босуту, Чарнок код Врбаса и значајнији локалитети на траси аутопута Е-70 кроз Срем (Баре, Вогањ; Тромеђа, Пећинци; Ливаде, Сремска Митровица; Брегови, Атовац; Вртлози, Шимановци). Међу овим локалитетима разликујемо келтска утврђења и мања домородачка насеља.

На основу истраживања остатака фауне са ових локалитета утврђено је 7 домаћих и 13 дивљих врста: домаће говече (Bos taurus), овца (Ovis aries), коза (Capra hircus), домаћа свиња (Sus scrofa), коњ (Equus caballus), пас (Canis familiaris), домаћа кокош (Gallus gallus dom.), праговече (bos primigenius), јелен (Cervus èlaphus), срна (Capreolus capreolus), дивља свиња (Sus scrofa), медвед (Ursus arctos), лисица (Vulpes vulpes), зец (Lepus europaeus), дабар (Castor fiber), штука (Esox lucius), шаран (Cyprinus carpio), сом (Silurus glanis), виноградарски пуж (Helix pomatia), и Unio pictorum.

На основу података о фауни и броју остатака на овим локалитетима домаће врсте су заступљене са преко 90%, осим на локалитетима Чарнок 68% и Турски Шанац 88,8%. Најбројнија домаћа врста је говече, затим следе овца, коза и свиња, док су коњ, пас и кокош мање заступљени. Лов је био много мање значајан, ограничен на јелене, дивље свиње и срне, са појединим примерцима зеца, тура-праговечета, дабра, лисице и медведа. Остаци костију шарана, сома и штуке пронађени су на локалитетима Гомолава, Чарнок и Вртлози.

У келтским насељима Европе висина гребена говеда једва је достизала 110 cm. На Гомолави израчунате висине гребена говеда износе 92, 101, 104, 105, 106, 113, 114, 115, и 116 cm. У оппидуму Чарнок два примерка говеда имају висину од 107 и 109 cm, а на Босуту 107 и 105 cm. У домородачким насељима у Срему говеда су имала висину гребена од 106 до 117,7 cm.

У насељима старијег гвозденог доба у Војводини средња вредност висине гребена говеда је 110,64 cm, а у млађем гвозденом добу је 107,89 cm, а у римско доба 127,92 cm.

На основу ових података се види да су говеда у келтским утврђењима и домородачким насељима нижа за 3 cm. од говеда старијег гвозденог доба, а за 20 cm. од римских.

На основу дужине целих костију домаће свиње израчуната висина гребена је од 65 до 68 cm.

Висина гребена оваца је од 51 до 69 cm, а коза од 62 до 68 cm.

Остаци костију коња у келтским налазиштима су обично добро очувани, а висине гребена се крећу на Гомолави од 123 до 133 cm; на Чарноку од 112 до 133 cm.; а na lokalitetu Bregovi, Atovac 123 cm. Средња вредност висине гребена коња у налазиштима старијег гвозденог доба је 135,7 cm; у млађем гвозденом добу 125 cm, а у римском 146,3 cm. На примеру коња јасно се види да су келтски коњи били нижи за 10 cm од коња из старнјег гвозденог доба, а за 20 cm од римских коња.

На локалитету Чарнок пронађени пас је имао средњу висину гребена 54,5 cm, а на Гомолави су висине између 35 и 47 cm.

Остаци домаће кокоши се први пут појављују у налазиштима Келта и представљају једну од карактеристика фауне. На истраженим локалитетима учесталост домаће кокоши је од 0,5–2,0 процента.

На основу висине гребена домаћих животиња у келтским утврђењима и домородачким насељима можемо закључити да је гајење домаћих врста било на примитивном нивоу.

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