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THE ANIMAL BONES FROM THE EARLY BRONZE AGE SITE AT ÜLLŐ

Seventeen of the twenty-four pits assigned to the Early Bronze Age Makó culture contained animal bones (Pits 2037, 2048, 2049, 3608, 3638, 3679, 3682, 4035, 4079, 4089, 4875, 5600, 5605, 5613, 5614, 5616, and 7479). A total of 1112 animal bones were recovered (Fig. 24, Fig. 26. 1). Domestic species were represented by cattle (*Bos taurus* L.), sheep (*Ovis aries* L.), pig (*Sus scrofa domesticus* Erxl.) and horse (*Equus caballus* L.), while wild species were represented by a single aurochs (*Bos primigenius* Boj.) radius fragment.

The distribution of the domestic species are shown in Table 1. (Pit 5600 is separeted and the other 16 pits are together!)

Fourteen pits yielded less than thirty-three animal remains. Pit 4079 contained 71 bones; a total of 193 remains were recovered from Pit 4035, and 742 bones were brought to light from Pit 5600, representing 66.8 per cent of the entire sample.

Cattle (1010 bones, 25 individuals)

The absolute dominance of cattle can be noted in each pit, the only exception being Pit 3679, which was dominated by horse (7 cattle bones and 20 horse bones). Two types can be distinguished: a large bodied, sturdy type with heavy bones, and a small bodied type. The skull type could not be determined owing to the few (and fragmentary) skull bones. The measurements of the five intact long bones (MATOLCSI 1970) indicated a withers height ranging between 112.7 and 135 cm. The former probably represents a small-bodied cow, the latter a large bodied bull or an oxen. The cattle withers heights are shown in *Table 2*. Most cattle were butchered at adult age; only the remains of two juvenile specimens were found. The minimum number of individuals was 25 (2 juvenile, 5 subadultus and 18 adultus individuals). The sizes of the cattle bones are shown in *Table 4*.

Pit 6500

The finds from Pit 5600 are treated separately owing to the high number of animal bones recovered from this pit. The overwhelming majority of cattle bones (736 pieces; 73 per cent) were recovered from this feature. The bones lay in anatomical order in three layers (Fig. 26. 1). The assemblage was dominated by intact vertebrae and ribs, which were either almost intact or broken in half. The upper part (caput costae) survived on most ribs. No butchering marks could be noted on the bones: the breakages occurred either when the animals were deposited in the pit or during the excavation. The assemblage included five skull fragments only. The overwhelming part (85.3 per cent) of the assemblage is made up of vertebrae (361) and ribs (267). Few remains came from the limb region, and these are dominated by pelvic bones (46). Most frequent among these were the acetabulum and hip-bone fragments. At least fourteen individuals can be distinguished on the basis of the 13 atlas bones, 11 epistropheus bones, 63 neck vertebrae, 159 dorsal vertebrae, 78 lumbar vertebrae, 14 sacrums, 23 caudal vertebrae and 14 left pelvic bones from Pit 5600. It would appear that the trunk had been thrown into the pit after the head and limbs of the animals were severed. Similar cattle sacrifices are known from other Bronze Age sites too (VÖRÖS 1988; VÖRÖS 2000). Most of the animals were large bodied, adult individuals. Their sizes are shown in Table 4. Three individuals were subadult since several vertebrae had not ossified (including three epistropheus). In addition to the cattle remains, Pit 5600 also yielded two horse and four sheep bones. The anatomical distribution of the animal bones is shown in *Table 3*.

Sheep (54 bones; 7 individuals)

A total of 54 sheep bones were recovered. The individuals included one infans, one juvenile, one subadult and four adult individuals. The bone sizes are shown in *Table 4*.

Pig (7 bones; 3 individuals)

A total of 7 bones were found. Three individuals could be distinguished: one neonatus, one subadult, and one adult.

Dog (6 bones; 2 individuals)

The bones of this species included skull and limb bone fragments. They were unsuitable for a morphological evaluation.

Horse (34 bones; 4 individuals)

The 34 bones included 4 intact long bones. The height estimates based on them (VITT 1952) range between 129.5 and 138 cm, considered a low and medium height. The sizes are shown in Table 4, while the withers heights are presented in *Table 5*. The bones all came from developed individuals.

The composition of the bone assemblage from the Üllő site has little in common with the currently known Early Bronze Age animal bone samples. Even though very few animal bone assemblages of the Makó culture have been published (BARTOSIEWICZ 1999, 280–281; NOVOTNÝ 1955, 60; PATAY 2002, 46; TÓTH 2001, 130), none shows the dominance of cattle to this extent. The rich diversity of wild species is also mis sing. The anatomical distribution of cattle bones in Pit 5600 was quite unusual for limb bones were virtually missing.

Table 1. Üllő 5. Distribution of domestic species

species	Pit 16	Pit 5600	Total (pieces	%
Cattle-Bos taurus L.	274	736	1010	91,0
Sheep-Ovis aries L.	50	4	54	4,8
Pig-Sus scrofa dom.L.	7		7	0,6
Horse-Equus caballus L.	32	2	34	3,1
Dog-Canis fimiliaris L.	6		6	0,5
Total:	**369**	**742**	**1111**	**100**

Table 2. Üllő 5. Cattle withers heights estimated from the long bones

Bones	Length (mm)	withers height (mm)
humerus	272,3	1128
radius	284,5	1223
	284,2	1222
tibia	354,0	1221
metatarsus	247,8	1356

Table 3. Üllő 5. Anatomical distribution of animal remains from Pit 5600

	Cattle		**Sheep**		**Horse**		**Pig**		**Dog**	
Bones	Pit 16	Pit 5600	Pit 16	Pit 5600	Pit 16	Pit 5600	Pit 16	Pit 5600	Pit 16	Pit 5600
neurocranium	3	1	2	–	–	–	1	–	1	–
viscerocranium	14	1	–	–	2	–	–	–	1	–
tooth	24	1	4	–	–	–	–	–	–	–
mandibula	14	2	4	–	1	–	1	–	–	–
Head region	**55**	**5**	**10**	**–**	**3**	**–**	**2**	**–**	**2**	**–**
vertebrae	73	361	–	2	2	–	–	–	1	–
costae	48	267	–	1	3	–	–	–	–	–
sternum	1	7	4	–	–	–	–	–	–	–
Trunk region	**122**	**635**	**4**	**3**	**5**	**–**	**–**	**–**	**1**	**–**
scapula	8	7	2	–	–	–	3	–	–	–
humerus	16	4	6	–	2	–	–	–	1	–
radius	10	6	3	1	2	–	–	–	–	–
ulna	7	4	–	–	–	–	–	–	2	–
os carpale	2	8	–	–	–	–	–	–	–	–
metacarpus	4	2	5	–	2	–	–	–	–	–
Forelegs region	**47**	**31**	**16**	**1**	**6**	**–**	**3**	**–**	**3**	**–**
pelvis	13	46	–	–	–	–	–	–	–	–
femur	9	2	–	–	–	1	2	–	–	–
patella	–	1	–	–	–	–	–	–	–	–
tibia	13	5	16	–	7	–	–	–	–	–
astragalus	3	4	–	–	–	–	–	–	–	–
calcaneus	1	2	–	–	–	–	–	–	–	–
os tarsale	3	5	1	–	2	–	–	–	–	–
metatarsus	4	–	2	–	7	–	–	–	–	–
Hindleg region	**46**	**65**	**19**	**–**	**16**	**1**	**2**	**–**	**–**	**–**
phalangis I.	4	–	1	–	–	–	–	–	–	–
phalangis III.	–	–	–	–	2	1	–	–	–	–
Phalanges	**4**	**–**	**1**	**–**	**2**	**1**	**–**	**–**	**–**	**–**
Total:	**274**	**736**	**50**	**4**	**32**	**2**	**7**	**–**	**6**	**–**

Table 4. Üllő 5. Animal bone sizes

	1.	2.	3.	4.	5.	6.	7.
Cattle							
humerus	–	–	36.80	74.60	–	40.60	72.20
	–	–	27.10	60.60	–	30.00	64.00
	–	–	33.80	72.80	–	39.80	–
	–	–	–	68.60	–	36.80	72.30
	272.30	89.10	36.10	73.50	99.50	42.20	74.20
	–	–	35.00	–	–	41.70	–
radius	–	–	–	65.50	–	–	46.20
	–	80.50	41.60	–	40.10	23.60	–
	–	75.50	–	–	41.50	–	–
	284.50	80.80	41.80	–	39.00	24.40	43.60
	–	82.00	–	–	42.42	–	–
	–	–	–	71.20	–	–	43.70
	–	–	–	68.20	–	–	44.80
	–	77.00	39.40	–	36.70	21.80	–
	284.20	79.70	42.20	73.30	39.70	23.90	47.70
	–	–	–	87.30	–	–	51.00
	–	–	–	78.60	–	–	51.70
femur	–	108.00	–	–	48.40	–	–
	–	–	–	102.40	–	41.20	–
	–	–	38.60	91.50	–	–	112.40
tibia	–	92.80	–	–	81.80	–	–
	–	–	–	61.20	–	–	45.50
	–	–	–	60.80	–	–	40.20
	–	–	38.00	63.00	–	27.60	45.00
	354.00	93.80	40.00	58.80	88.50	26.60	45.80
	–	–	–	65.10	–	–	48.00
metacarpus	–	–	–	58.40	–	–	81.80
	–	–	–	65.70	–	26.40	35.50
	–	–	–	53.30	–	20.50	28.50
metatarsus	–	43.40	24.80	–	41.50	–	–
	247.80	54.50	30.80	63.40	50.50	27.60	36.14
	–	46.50	–	–	45.20	–	–
	–	48.80	26.00	–	43.00	–	–
os phalangis I.	66.50	30.70	26.00	29.30	37.10	20.20	22.60
	62.60	33.60	27.90	31.30	36.60	18.87	22.20
	58.70	25.00	20.60	23.00	30.00	17.40	17.70
os phalangis II.	36.70	27.70	22.70	23.40	30.00	20.20	23.90
Sheep							
humerus	–	–	31.60	–	–	25.60	–
radius	–	–	15.60	–	–	7.60	–
	–	34.30	20.70	–	17.50	10.80	–

Table 4. continued

	1.	2.	3.	4.	5.	6.	7.
Sheep							
metacarpus	–	–	14.40	–	–	9.80	–
	–	–	22.70	–	–	16.40	–
tibia	–	–	14.70	–	–	12.00	–
	–	–	14.50	–	–	12.20	–
	–	–	12.80	–	–	10.80	–
	–	–	14.80	–	–	12.10	–
metatarsus	–	–	10.40	–	–	9.40	–
os phalangis I.	38.20	13.10	10.10	12.20	15.20	8.50	10.40
Horse							
radius	–	74.00	–	–	44.40	–	–
metacarpus	216.10	52.10	35.50	51.00	34.30	23.40	37.80
	–	41.10	29.20	–	27.00	21.60	–
tibia	–	–	–	66.50	–	–	42.30
	–	–	–	67.40	–	–	41.80
		–	–	73.80	–	29.30	45.00
	–	79.90	–	–	73.10	–	–
metatarsus	248.10	43.80	27.60	47.50	39.50	23.40	35.30
	251.00	51.50	32.80	–	45.10	26.80	–
	264.20	–	28.80	48.90	39.50	24.60	33.40
	–	–	–	51.60	–	24.10	36.70
	–	–	–	47.60	–	25.00	36.80
Dog							
humerus	–	–	14.40	–	–	14.20	–

1. greatest length, 2. breath of proximal epiphysis, 3. smallest breadth of diaphysis, 4. breadth of distal epiphysis, 5. diameter of proximal epiphysis, 6. smallest diameter of diaphysis, 8. diameter of distal epiphysis.

Scapula	**smallest breadth of collum scapulae**	**breadth of angulus articularis**	**breadth of facies articularis**
Cattle	40.60	–	–
	51.40	68.00	55.60
	55.20	72.30	59.10
	43.10	–	–
	43.10	60.80	51.20
	56.10	68.20	59.80
	52.10	67.70	57.40
Sheep	27.70	–	–
Pig	10.40	–	–
Calcaneus	**greatest length**	**greatest breadth**	**greatest height**
Cattle	–	42.80	–
	130.80	42.80	–

Ulna	**length of olecranon**	**breadth of artic.surfac.**
Cattle	–	45.30
	–	45.40
	91.10	44.80
	–	44.90
	–	39.80
Astragalus	**greatest length**	**breadth of fac.artic.nav.**
Cattle	65.30	45.90
	68.60	45.80
	69.50	46.60
	63.50	40.20
	64.90	45.50
	69.00	48.60
	69.50	46.10

Table 5. Üllő 5. Horse withers heights estimated from the long bones

Bones	length (mm)	withers height (mm)	body hight
metacarpus sin.	216	1340	low
metatarsus sin.	248	1295	low
dext.	251	1310	low
dext.	264	1380	of overage height

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