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THE ANIMAL BONE MATERIAL FROM THE LADIK STREET

The Site

The cemetery-shrine complex located at Ladik and Szentendrei streets was first excavated in 1984 by P. Zsidi of the Aquincum Museum. At that time, part of a 2nd c. cemetery was uncovered. Subsequent rescue work prior to the building of a ESSO gasoline station revealed more of the cemetery as well as the refuse bones from the burials level. The 100 animal bones were divided into two samples depending on whether they came from the graves or the area between the graves. The latter sample is considered to be the result of some kind of ritual activity in the cemetery.

Refuse bones from the bureals level
Taphonomy

The bones from the fanum are generally fragmented. Most of the long bone fragments fall into the range of 46 to 71 cm according to the fragmentation chart in the "KNOCOD" system developed by Uerpman (1973). This means that at least half their diameters are missing as well as both epiphyses. Many of the long bone fragments fall in the range of slivers without epiphyses. Unlike refuse bone from most Roman habitation areas, deposition in this area was not intensive and many of these bone fragments appear to have lain on the surface some time before having been buried since they show distinct signs of weathering. This weathering also accounts for some of the fragmentation as bones that lie on the ground exposed to the elements tend to break up after only a few months. However, such pieces tend to be straight and angular (BEHRENSMEYER 1978, 151–152) in the latter stages of weathering while the majority of the specimens at the Ladik steet burials level show the characteristic spiral fracturing which typifies bones deliberately broken up to extract the marrow (BONNISCHSEN et al 1980). Another proof that these bones must have lain around after the

meal was consumed is the high proportion of bones which display some sign of gnawing by dogs. Such damage is unusual for the Civil town and indeed for most dwelling areas where the bone debris seems to have been disposed of almost immediately after consumption.

Butchery

Most of the bone specimens from the burials level show unmistakable chop marks characteristic of bones from refuse deposits from houses in the Civil town. These have been interpreted as having been purchased in a butchers' shop where large body parts were chopped up into more managable pot sizes for the Antique cooks. Indeed the size of the fragments suggests meals prepared in the form of stews which were most commonly consumed here. There is also one fragment of a cattle pelvis which has filetting marks where the meat was removed from the bone before cooking. Another tooth from cattle is burned at the tip. Takács (1990–1991) has interpreted such burning as being the result of roasting. The teeth become charred as the animal is turned over the fire and the meat shrinks away from the teeth leaving them exposed to the fire.

Species distribution

The bone specimens from the fanum come primarily from cattle. Suprisingly, for Roman sites of this period the next most common species is sheep/goat which is solidly represented. Thus, although cattle bone is most common, an unusually high percentage of sheep/goat marks a deviation from what is usually found at Roman, and indeed Celtic, sites in the area. Another quarter of the bone specimens come from long bones, unidentifiable to species but within the the size range of sheep/goat. Pig skeletal elements, usually of more importance, follow. The presence of two horse bones is hard to account for although Schibler (per com) has suggested that this species was the poor man's meat and so occasionally was eaten once the animal became too old for work. There is one fragment of a mollusc (Unio) which may have also been part of a meal. The single dog metatarsal from the foot may represent some post-depositional disturbance as this species was never eaten by the Romans and is out of place in this material which evidently represents the remains of meals.

Bone part distributions

Bone part distributions in remains from cattle, sheep/goat, pig and unidentifiable small ruminents come mostly from the legs in the form of long bone fragments. There are a few fragments from the head of cattle and a small concentration of sheep/goat ribs probably representing a popular meat cut in those times, the spare rib. There are some head fragments from cattle and one from pig. The body part distributions display some notable differences with those of the bones coming from the cemetery.

Aging and sexing

Since the bone material is so fragmented very little can be said about the ages and almost nothing of the sex of the animals which were slaughtered to provide these meals. This is unfortunate because it would be tempting to say that the high proportion of sheep/goat remains comes from higher quality young beasts offered in sacrifice at the shrine. All together there is one specimen from a juvenile cattle, one from an adult cattle and one from a mature cattle. There is one sub-adult bone from sheep/goat and one bone from an adult goat. The single horn core is from a young adult bull while the complete metatarsal is from an adult female.

Size

There is only one complete metatarsal bone from cattle which is available for estimating withers height in this part of the site. This bone, mentioned above, comes from a cow of 116,3 cm withers height which falls well within the size range of Celtic cattle (BÖKÖNYI 1974, 123) and in the lower size range for Roman cattle in Pannonia in general (BÖKÖNYI 1974, 130, 1984, 28) using Bartosiewicz's equation (BARTOSIEWICZ 1985, 1988).

Conclusions

The highly fragmented bones seem to be refuse from mostly stew-like meals brought to the burials area area and consumed there. The type of dish is suggested by the small size of the fragments as well as the dominence of long bones. Unusually, the bones from sheep/goat are quite important compared to the bones of pig. People of all classes of society brought meals as shown from the remains of horse, a poor man's food.

The Cemetery

Taphonomy

The 42 bone specimens from the graves are less fragmented than those from the burials area. There are a higher proportion of bones with part of the epiphysis and more than half the diaphysis preserved. The bones are also less weathered although they clearly rested for a certain time on the surface before being cleared away and buried. Interestingly, none of the bones show traces of gnawing by dogs which suggests that they were somehow more protected from these urban scavangers that the remains of meals from the burials area.

Butchery

In comparison to the bone remains from the burials area the fragments, especially from cattle and sheep/goat, coming from the area of the graves display more intensive signs of butchery. Clear chop marks were found on two cattle vertebrae. On these the processus spinosae and transversvae were hacked off with a cleaver-like tool while the lumber vertebrae was also chopped in half prior to processing for the meal. There is a cattle pelvis fragment with deep chop marks

on the illium resulting from breaking up of the pelvis in the butcher shop. Another cattle pelvis was chopped through the acetabulum as well as through the illium. Fine cut marks may also be seen on the ventral side of the bone which may be related to the actual preparation of the food. Finally, there is a cattle metatarsal which has been chopped in half through the proximal epiphysis so that only the dorsal half remains. The ribs from both cattle and sheep/goat are chopped off the joint and distally. The general impression is that different sorts of meals were prepared from these larger sections of meat. However, there is no sign that the meat was being roasted or indeed that it was cooked in any manner when it was laid down by the graves.

Species distribution

Basically, the species distributions between the assemblages from the burials area and these from the graves are very similar. The unusually high proportion of sheep/goat holds true for the remains from the cemetery as well, with almost a quarter of the bones coming from these species. Pig, horse and dog are represented by one bone each. There is also one bird bone from a small avian species and two snail shells which are probably intrusive. The low proportion of pig in both areas suggests that perhaps the majority of the people using this complex at various times either had strong food preferences toward cattle and especially, sheep/goat or were actually forbidden to comsume pork. Very few of the bones were not identifiable to species. This phenomenon is related to the less fragmentary nature of the material over all.

Body part distributions

As opposed to the refuse bone material from the burials level there are proportionally more vertebra, rib and pelvis fragments, fewer long bone fragments and no skull fragments. According to Uerpman's classification of meat cuts (UERPMAN 1974) these bones from the graves also generally represent better quality and different cuts of meat compared with those from the burials level.

Aging and sexing

The three acetabulum available, two from cattle and one from sheep/or goat all probably come from adult females. Despite the larger size of the fragments the bone parts available for study from the cemetery were not very appropriate for aging studies.

Size

The impression given by the material from the area of the graves is generally of medium-small size animals. However none of the bone specimens has survived in a condition to allow precise calculations of wither heights.

Conclusions

Although the actual species distributions between the two areas is remarkably similar there are significant differences between the burials level and the graves in terms of taphonomy, butchery patterns and bone part distribution. The fact that in both areas sheep/goat remains make up almost a quarter of the specimens makes this complex stand out from other faunal assemblages found at other contemporary sites in the area where the proportion of this species is more likely to hover around the region of 5 to 10 percent. Even granting distortions caused by the relatively small sample of 100 bone specimens these numbers remain suggestive of some kind of food preference or even meat taboos among the ethnic group using this area. Since the native Celts, prior to the Roman occupation, were enthusiastic consumers of pork it is suggested here that the Ladik street site may have been used by members of an ethnic group coming from outside Pannonia, either the Mediterranean or even Near East.

Differences in the way food functioned in the rituals of the burials level and the graves seem to be expressed in differences in preservation, fragmentation and body part distributions. The bones from the burials level come mostly from the limb bones and are much more broken up. The fragments are often too small to allow either species or body part identification beyond the fact that they come from small species in the sheep/goat size range. This suggests they were the remains of stews brought to the burials level. The meat cuts from the cemetery are of higher quality, coming more from the vertebral, pelvic and rib regions. There is only one unidentifiable pelvis fragment which comes from an animal within the size range of sheep/goat. From this aspect alone it can be seen that the size of the fragments is larger. There are more clear butcher chop marks on them. However, if these are actually the remains of meals as well and not simply food offerings designed to accompany the deceased into the next world then it is less clear how they were actually prepared since aside from fine cut marks on the ventral side of cattle pelvis there are no other signs of either cooking or kitchen work on their surfaces. Absence of such traces does not, however, mean that these bones were not also the remains of a more elegant cuisine prepared as meals to be consumed at the graveside.

Notes

1 The proximal breadth was 20,9% of the greatest length using Nobis' method (1954).

Table 1

Measurements: Fanum							
Horn core measurement (after BÖKÖNYI 1984)							
Cattle (Bos t.)	GBB 61.0		GDB 45.7		Circ. Base 153.0		
Long bone measurements (after BÖKÖNYI 1984) 1. greatest length 2. width proximal epiphysis 3. depth proximal epiphysis 4. smallest width of diaphysis 5. smallest depth of diaphysis 6. width distal epiphysis 7. depth distal epiphysis							
Proximal radius Cattle (Bos t.) Goat (Capra hircus L:)		2. 79.1 34.2	3. 41.4 16.9	4. 40.0	5. 24.0		
Metatarsus Cattle (Bos t.)	1. 210.2	2. 43.9	3. 40.5	4. 24.2	5. 22.6	6. 50.0	7. 29.2
Measurements: Cemetery							
Distal humerus Horse (Equas caballus L.)	1.	2.	3.	4.	5.	6. 85.8	7. 40.0
Distal metacarpus Cattle (Bos t.)					18.2	53.8	27.2
Prox. metatarsus Cattle (Bos t.)		48.7					
Pelvis (measurements after von den Driesch)							
Cattle (female)	*SC* 14.9		*SH* 8.9		*LAR* 25.7		

Table 2

Species Distribution: Cemetery	
Species	*Number of specimens*
Cattle	27
Sheep/Goat	10
Pig	1
Horse	1
Dog	1
Bird	1
Snail	1
Small n.d.	1
Total	42
Species Distribution: Fanum	
Species	*Number of specimens*
Cattle	23
Sheep/Goat	9
Pig	1
Horse	3
Dog	2
Bird	1
Snail	1
Small n.d.	17
Total	58

Table 3

Body part distributions: Fanum						
	Cattle	*S/G*	*Pig*	*Horse*	*Dog*	*Small n. d*
Part Skull	1	1	1			
Mand.	2					
Tooth	2			2		
Vert.	3					
Rib		3		1		
Scap.	1					
Hum.	1		3			2
Radius	3					
Ulna	1					
Mc.	1					
Carpal						
Phal.						
Pelv.	1					1
Acet.						
Femer	3		1			
Tibia	1	4				1
Fibula						
Astrag.						

Table 3 (continue)

Body part distributions: Fanum						
	Cattle	*S/G*	*Pig*	*Horse*	*Dog*	*Small n. d*
Part Calc.						
Tarsal						
Mt.	2	1				1
Phal.						
flat bone						
long bone						13
Total	23	10	3	2	1	17
Body part distributions: Cemetery						
	Cattle	*S/G*	*Pig*	*Horse*	*Dog*	*Small*
n.d. Part Skull						
Mand.						
Tooth						
Vert.	4	1			1	
Rib	9	3				
Scap.	1	1				

	Cattle	*S/G*	*Pig*	*Horse*	*Dog*	*Small*
n.d. Part Hum.	1		1	1		
Radius	1					
Ulna	1					
Mc.	1					
Carpal						
Phal.	1					
Pelv.	1					1
Acet.	2	1				
Femer	3					
Tibia	1	1				
Fibula						
Astrag.						
Calc.						
Tarsal						
Mt.	1					
flat bone						
long bone						13
Total	27	10	1	1	1	1

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