

## **Appendix 6: Animal bone report**

St Catherine's, Lincoln (SCEL07)

Job 355

### **Animal Bone Report**

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#### *Introduction*

In total, 69 animal bone fragments - all hand-collected - were made available for analysis. These represent too small an assemblage to allow for meaningful interpretation but one deposit, layer 105, contained numerous sheep metapodials and these warrant further comment. The bones from this deposit are associated with late 15th- to early 16th-century pottery.

#### *Methodology*

Bones were identified to taxa wherever possible, although lower-order categories were also used (e.g. sheep/goat, large-size mammal). The separation of sheep and goat bones was routinely attempted, using the criteria of Boessneck (1969) and Payne (1969, 1985), but in the apparent absence of goat, the sheep/goat bones are assumed to be of sheep. As the assemblage was so small, all fragments were recorded although identification of diagnostic element zones, which by definition are easily identifiable and non-reproducible, was also made (Table 1).

For age-at-death data, epiphyseal fusion (after Silver 1969) and the eruption and wear of deciduous and permanent cheek teeth were considered. Dental eruption and wear were recorded using the letter codes of Grant (1982).

Bone condition, erosion, fragment size and fresh breaks were recorded in order to assess bone preservation, while gnawing, burning and butchery marks were noted to determine bone treatment. Butchery was routinely differentiated into chop and cut (knife) marks and the position and direction of these marks were noted in order to identify dismembering, filleting and skinning activities.

Finally biometrical data were recorded following the standards given by von den Driesch (1976).

#### *Results*

Although the assemblage was of questionable relevance due to its small size, it was generally well-preserved with few eroded bone surfaces. Burnt bones were rare (only one example), gnawing was sparse (three bones were thus marked) and butchery marks were also uncommon (seven bones were cut or chopped). No pathological bones were noted.

Only domestic animals were identified, cattle, sheep, pig and domestic fowl (Table 1). The undiagnostic bird bones were all domestic fowl-sized. An absence of game is not unexpected from an urban site of this relatively late date. Comparing the relative proportions of the main domestic animals in order to assess dietary trends is

inappropriate as the majority of bones came from layer 105 and may represent a cache of bone working material or evidence of tawyering.

This deposit (105) consisted of the remains of sheep metacarpals (5) and metatarsals (21); the majority probably from adult animals but sub-adult individuals were also represented. Two metatarsals had been butchered, one bearing the marks of dismemberment while the second was probably marked during skinning. These bones may indicate primary butchery waste (with the removal of low-utility parts), bone working (the metapodials provide a straight length of bone and the metatarsals in particular provide compact bone) or working with skins. On balance, bone working is most likely as primary butchery and skinning waste would typically include other bones such as the phalanges. Metrical data for these bones are given in Table 2. Comparing the breadth of the distal articulation (Bd) of the metatarsals to other Lincoln material indicates that the St Catherine material, with a mean of 24.3mm, is broader than examples from Hungate (mean 23.6mm - Richardson 2005a) but comparable to examples from Michaelgate (mean 24.3mm - Richardson 2005b).

### *Conclusions*

The presence of a few butchered (dismembered) animal bones suggests that some food waste from the consumption of beef, lamb/mutton, pork and chicken was deposited in this part of Lincoln during the medieval period. Most of the bones (all from deposits 105), however, were sheep metapodials, probably indicative of bone working.

Table 1. Fragment count by context (number of zones in parenthesis)

Context	Cattle	Sheep	Sheep/goat	Pig	Large-size mammal	Small-size mammal	Dom. fowl	Bird	Total
105	(1) 1	(26) 26	(1) 1		1				29
106			1		1	1		1	4
145	1				1				2
147			(1) 2			1			3
155			(1) 1						1
182	1		(3) 5	(1) 1	11			1	19
188					3			1	4
215			1		2				
217				(1) 1	1		(1) 1		3
238	(1) 1								1
273			(1) 1		2				3
Total	4	26	12	2	22	2	1	3	69

Table 2. Metrical data from sheep metapodials from layer 105

Element	GL	Bp	Dp	DFB	DFD	Bd	SD
Metacarpal	122.1	24.9		25.7	13.3		14.8
Metacarpal				27.0	12.8	27.0	14.6
Metatarsal	125.2	21.5	19.9	23.7	13.3	23.7	12.4
Metatarsal				24.7		24.7	
Metatarsal				25.3	13.1	25.8	
Metatarsal				22.8	12.4	22.9	
Metatarsal				23.4	13.6	24.0	
Metatarsal				24.3	13.1	24.3	
Metatarsal				21.8	11.9	22.4	
Metatarsal				26.4	15.0	26.4	

## **Bibliography**

- Boessneck, J., 1969. 'Osteological difference between sheep (*Ovis aries* Linne) and goats (*Capra hircus* Linne)' in D. Brothwell and E. Higgs eds., *Science in Archaeology*: 331-358
- Grant, A., 1982. 'The use of tooth wear as a guide to the age of domestic ungulates' in B. Wilson, C. Grigson and S. Payne eds., *Ageing and Sexing Animal Bones from Archaeological Sites* (British Archaeological Report British Series 109): 91-108
- Payne, S., 1969. 'A metrical distinction between sheep and goat metacarpals' in P. J. Ucko and D. W. Dumbleby eds., *The Domestication and Exploitation of Plants and Animals*: 295-305
- Payne, S., 1985. 'Morphological distinctions between the mandibular teeth of young sheep, *Ovis* and goats, *Capra*' *Journal of Archaeological Sciences* 12: 139-147
- Richardson, J., 2005a. 'Hungate, Lincoln, Lincolnshire; Animal Bone Report', Archaeological Services WYAS, unpubl. (ASWYAS Report No. 1349)
- Richardson, J., 2005ba. 'St Cuthbert's Nursery, Micklegate, Lincoln, Lincolnshire; Animal Bone Report', Archaeological Services WYAS, unpubl. (ASWYAS Report No. 1384)
- Silver, I. A., 1969. 'The ageing of domestic animals' in D. Brothwell and E. Higgs eds., *Science in Archaeology*: 283-302
- von den Driesch, A., 1976. *A Guide to the Measurement of Animal Bones from Archaeological Sites* (Peabody Museum of Archaeology and Ethnology, Harvard University: Cambridge)