

11 The Faunal Remains *by David Henderson*

A small quantity of animal, fish and bird bones was recovered by hand picking during the course of the 1981 South Choir Aisle excavations. In all, 818 elements were identified to species, 659 (80.6%) of which derived from contexts assigned to Period 3. Most of these bones were recovered from C9, the mid-15th-century backfill of the construction trench of the present east wall, but the preservation of the bone and the nature of the fragmentation of the skeletal elements suggest that the bones are derived from primary deposition rather than redeposited and residual material.

11.1 Methods

The bones were identified to species and to skeletal element for mammal bones, to species for fish and to species for chicken and goose bones; other birds (a total of ten bones, mostly from small passerine species) were not differentiated. An attempt was made to distinguish between sheep and goat on the basis of horncores, teeth and metacarpals, but

no element was judged to be from goat. All bones from this taxon were catalogued as ‘sheep’ therefore, though it should be remembered that these figures may contain some goat bones. Minimum numbers of individuals (MNI) were calculated for each species, primarily on the basis of paired elements, although epiphyseal fusion and tooth wear were also taken into account where relevant. The MNI was calculated for phases because of the small assemblage available from individual contexts. For the purposes of this report, the phases of activity on site are separated into three groups: Periods 2a, 2b and 3. The skeletal element frequency (SEF) was calculated on the basis of articular ends of longbones, jaws with teeth *in situ*, rib heads and vertebral bodies.

11.2 Species present

The numbers of fragments (number of individual specimens (NISP) and the minimum number of individuals (MNI) for each species is shown in [Table 11](#).

Table 11 Animal bone NISP and MNI by Period

Species	Period 2a		Period 2b		Period 3	
	NISP	MNI	NISP	MNI	NISP	MNI
Sheep	29 (50% of mammals)	2 (40% of mammals)	43 (52%)	4 (50%)	253 (55%)	10 (40%)
Cattle	26 (45%)	1 (20%)	37 (45%)	3 (38%)	127 (27%)	3 (12%)
Pig	1 (2%)	1 (20%)	2 (3%)	1 (12%)	28 (6.1%)	2 (8%)
Cat	2 (3%)	1 (20%)			34 (7.4%)	5 (20%)
Dog					5 (1%)	2 (8%)
Roe deer					7 (1.5%)	1 (4%)
Rabbit					4 (0.8%)	2 (8%)
Chicken	3	1	2	1	126	14
Goose					8	2
Bird			1		9	
Cod					48	
Haddock	1		3		10	
Ling			1			
Gadoid			1			
Flatfish			6		6	
Ray			1			
Frog					2	
Total	62		97		659	

The assemblage is dominated by sheep and cattle, with a considerable number of chicken bones (19% of all bones recovered from Period 3). The relatively low number of pig bones is typical of medieval and post-medieval sites in and around Edinburgh (Chaplin & Barnetson 1975; Barnetson 1980; Chaplin & Barnetson 1980; Henderson, in prep). A small quantity of roe deer was recovered from Period 3. Evidence of cat and dog was present not only in the bones, but in the form of carnivore toothmarks on some 9% of the Period 3 bones. Of the minimum of five cats represented, three were under a year old. Of the fish, cod was the most common species consumed, followed by haddock.

11.3 Distribution of skeletal elements

Only Period 3 provided sufficient material to analyse for evidence of carcass utilization. Table 12 shows the MNI for each skeletal element expressed as a percentage of the highest MNI.

Although the figures for cattle are low, it can be seen that most of the cattle and sheep bones came from the high meat areas of the carcass, with little ‘waste’ (mandibles, phalanges etc). This suggests that the sample derives from domestic refuse of joints of meat, slaughtered and butchered elsewhere. Two sheep metapodials show signs of possible boneworking: a distal end cut off just above the epiphyseal line, using several blows, and a shaft fragments with extensive ‘shaving’ of the anterior surface. These may represent craft waste. Similarly, a dog ulna and radius have knife cuts at the proximal end, suggesting that the carcass was dismembered. As it is culturally unlikely that the animal was intended for a meal, it may have been skinned for fur- or leatherworking.

11.4 Age at slaughter

A few general observations may be made, but with such a small sample the findings are necessarily tentative and limited. By counting fused and unfused epiphyses, only 10% of cattle in Period 3 were less than 2.5 years old when slaughtered, and the presence of fully fused vertebral bodies shows that some animals were over 8 years old. This would suggest that the bones were derived from cattle kept primarily for dairy products (and possibly traction). Pig bones, while very few, do not reveal any animals over 3.5 years old. One mandible was from an animal 1.5–2 years old. The sheep bones from Period 3 provide a fuller picture. Twenty-two per cent of the animals were under one year at death, and a further 25% were between one and three years old. This represents a much higher level of lamb slaughter than was found at St Mary’s Street, Edinburgh (Chaplin & Barnetson 1980) where the 13% of sheep slaughtered before ten months of age was attributed to natural losses from the flock. The St Giles’ material may therefore represent a deliberate cull of lamb (or

Table 12 Percentage of MNI

	Cattle	Sheep
<i>Forelimb, high meat</i>		
Scapula	0	28
Prox humerus	20	0
Dist humerus	100	71
Prox radius and ulna	60	25
Dist radius	20	28
<i>Hindlimb, high meat</i>		
Pelvis	40	100
Prox femur	40	28
Dist femur	20	14
Prox tibia	20	7
Dist tibia	0	28
<i>Low meat bones</i>		
Prox metacarpal	40	0
Dist metacarpal	40	7
Prox metatarsal	20	0
Dist metatarsal	20	14
Calcaneum	0	21
Astragalus	20	14
Phalanx	8	1
<i>Body meat</i>		
Vertebral bodies		
Cervical	24	20
Thoracic	3	2
Lumbar	0	10
Rib head	8	6
<i>Head</i>		
Mandible	40	7
Zygomatic	20	0
Horn-core	20	7

kid) to provide prime, tender meat. Just over half the sheep were fully mature at slaughter. These animals had probably been kept long enough to provide some fleeces and for breeding, before being slaughtered for mutton.

11.5 Butchery

Little evidence for butchery practices was presented, but it was evident that carcasses were split into ‘sides’ of meat and that many of the cattle bones had been deliberately broken open, presumably to extract marrow.

11.6 Discussion

The paucity of remains from Period 2 precludes any detailed analysis, although the numerical dominance of sheep fragments and the low numbers of pigs is clearly demonstrated. In the 15th/16th-century deposits (Period 3), the bones seem to represent domestic refuse, possibly with a small admixture of craft waste. There is some evidence (eg young lamb, roe deer) that the contributing households were of a higher than average social

standing. The cattle bones, though representing good cuts of beef, derive from older animals, and may indicate husbandry practice based more on dairy products than prime meat products. If the ratio of a minimum of ten sheep to three cattle represents the true relative numbers of animals slaughtered, beef would have contributed three and a half times as much to the diet as mutton and lamb, based on Chaplin's estimate of a 12 to 1 ratio of dressed carcass weight for cattle and sheep (Chaplin 1971).