*Reports from the Environmental Archaeology Unit, York **94/33**, 6pp.*

Assessment of the Middle Saxon animal bone assemblage from Cottam, North Yorkshire (site code COT93)

by

Keith Dobney, Deborah Jaques and Don Brothwell

Summary

A small, poorly preserved and heavily fragmented animal bone assemblage was submitted for assessment. Points worthy of note include the apparent predominance of sheep, and the presence of moderate numbers of water vole and frog remains and a human skull, with possible ritual significance, from a large pit. Further selective analysis is recommended once a larger assemblage is available from planned future excavation.

Authors' address

Environmental Archaeology Unit
University of York
Heslington
York YO1 5DD

Telephone: (0904) 433846/51
Fax: (0904) 433850

Prepared for:

Department of Archaeology
University of York
Micklegate House
Micklegate
York
YO1 1JZ

21st June 1994

Assessment of the Middle Saxon animal bone assemblage from Cottam, North Yorkshire (site code COT93).

Introduction

A small assemblage of animal bones was recovered from excavations at Cottam; a total of 4 boxes (17.6 kg) from numerous bone-bearing contexts. All the material was initially viewed, but only the contexts giving the larger bone assemblages (of which there were eight) were recorded in detail.

Preservation was consistent with that expected from a well-drained chalk substrate, i.e. poor to fair with little organic content and a highly brittle or leached appearance, accompanied by extensive root etching on the surface of most of the material. In addition the bones were heavily fragmented, more than half being less than 5 cms in length. Most of the identifiable fragments were isolated teeth (particularly caprovid) - a common feature of poorly preserved assemblages.

Discussion

A range of domestic species was represented in the assemblage (Table 1), the most common being the remains of caprovids (those which could be identified more closely being sheep), followed by cattle. Interestingly, bones identified as either pig, domestic fowl and geese appeared to be very poorly represented at Cottam. As a result of the poor preservation and heavy fragmentation, there were few measurable postcranial elements, providing a limited biometrical record. Of particular note is the wide range of size of sheep in the assemblage, numerous elements being from particularly large individuals.

Additional interesting species include the remains of red deer (*Cervus elaphus* L.), canid (mostly dog, although a large carnassial from context 3000 could be wolf), cat (*Felis* f. domestic), mole (*Talpa europaeus* L.), Water vole (*Arvicola terrestris* (L.)), frog (*Rana temporaria* L.) and two obviously worked salmon vertebrae (*Salmo salar* L.) from context 3001). A number of these are of some potential interpretative value.

The remains of the water vole are sufficiently common within the Cottam deposits to warrant special interest. Its remains have been recovered from a total of seven contexts. It is mostly represented by mandible and maxilla fragments, with a few additional postcranial elements (mainly femur and ulna). The presence of water vole could mean that during the Saxon period suitable habitats were common in the vicinity of Cottam, that the vole has significantly changed its habitat preferences, or that they were brought from elsewhere by a predator or by people. The presence of numerous water vole remains at (mainly upland) Bronze Age sites in the North of England (i.e. the Pennines, North Yorkshire and the Peak District) is well attested. Their presence on the Yorkshire Wolds in the Saxon period is, however, intriguing.

Remains from pit III.4

During excavations a large pit was uncovered which was found to contain a fairly complete human skull (measurements detailed in Table 2). Although sex attribution proved difficult, the skull appeared to be the remains of an adult female, of perhaps 25-35 years of age (judging by tooth wear and cranial suture closure). Abnormally heavy wear was noted on the remnants of the left dentition. The empty root sockets of the incisors appeared rounded and worn and no evidence was found of the associated mandible or mandibular teeth. This evidence tends to indicate that when the skull was placed in the pit it was not fresh. The tendons holding the jaw in place

are usually very resilient and have to attain an advanced state of decomposition before the mandible falls easily away. There are no signs of physical removal of the mandible and also no evidence for deliberate decapitation. There is, however, some evidence of weathering damage around the frontal and parietal regions of the skull, suggesting prolonged exposure or burial.

The pit was backfilled with what appears to be primary rubbish deposits, which contained additional human fragments (a distal humerus and a mandibular 3rd molar), a range of domestic animal remains including sheep, cattle, horse, pig, chicken, cat and dog. This deposit also contained a large number of frog bones (both juvenile and adult), water voles, a group of eggshell fragments and neonatal remains of what are almost certainly geese, and two salmonid vertebrae (perforated and worked into rudimentary beads). From the available evidence it would seem that the pit was backfilled using domestic waste from the settlement and, once filled, a broad shallow depression was all that remained. At some stage this depression seems to have contained water (perhaps a pond) creating a suitable habitat for frogs. The fact that whole juvenile frog skeletons were found would seem to indicate that this is a natural death assemblage and not one including a component introduced by, for example, the regurgitation of pellets by predatory birds.

Implications

Although only a small, poorly preserved, assemblage of fragmented bone was recovered, a number of interesting observations can be made:

(1) Pig, chicken and goose appeared to be relatively rare at the site whilst sheep was the most commonly occurring species. Although these species are usually more common in assemblages of Saxon date, the predominance of sheep is unsurprising in this generally dry upland area, a region ideally suited to their pasturing.

(2) The presence of water vole remains from a range of contexts is intriguing and adds additional data to records of similar enigmatic finds from (mainly upland) Bronze Age sites of the North of England.

(3) The presence of an isolated human skull within a large pit possibly has ritual significance, and is believed to be unique for the Saxon period. A ^{14}C date will resolve its actual date.

Recommendations

Although the number of bone assemblages of Middle Saxon date from the hinterland of York is extremely limited (that from Wharram Percy being the only other from the Yorkshire Wolds), the present assemblage from Cottam is of limited interpretative value because of its small size and poor preservation. At present, therefore, only general information can be gleaned regarding the animal-based economy of the site.

Although at this stage no further analysis is recommended, future planned excavation of the site will doubtless produce a larger assemblage, which should be studied in greater detail. It is probable, in view of the factors already discussed, that this analysis should be of a selective nature, addressing aspects of possible specialist husbandry activities (from the numerous caprovid teeth recovered) and attempting to establish the significance of the presence of water vole remains in the assemblage. Sample size will doubtless be increased by additional material recovered from continued systematic sieving.

Comparisons with data from Wharram Percy, Fishergate in York (O'Connor, 1991), West Heslerton (North Yorkshire) and Flixborough (Humberside) will provide additional important information for a period which is, as yet, little understood.

Retention and disposal

All the bone should be retained for future analysis

References

Brothwell, D.R. (1972). *Digging up bones*. London: British Museum (Natural History).

O'Connor, T.P. (1991). Bones from 46-54 Fishergate. *The Archaeology of York* **15(4).** London**:** Council for British Archaeology.

Table 1. Bones from Cottam. Total range of species and numbers of fragments from selected large contexts. (++ represents the remains of approximately four individuals from context 1003).

Species	**Total number**	**Total measurable**	**Isolated teeth**
Cattle (*Bos* f. domestic)	52	6	20
Sheep/goat (Caprovid)	328	20	196
Pig (*Sus* f. domestic)	14	3	9
Horse (*Equus* f. domestic)	7		5
Red deer (*Cervus elaphus* L.)	1		
Canid	10		
Cat (*Felis* f. domestic)	3		
Hare (*Lepus* cf.*europeaus* Pallas)	1		
Water vole (*Arvicola terrestris* (L.))	22		
Mole (*Talpa europaeus* L.)	8		
Human	3		
Chicken (*Gallus* f. domestic)	7		
Goose (*Anser* sp.)	3		
Frog (*Rana temporaria* L.)	++		
Salmonid (*Salmo salar* L.)	2		

Table 2. The human skull from Cottam. Human skull measurements follow those defined by Brothwell (1972).

Measurement description	Meas. code	mm
maximum cranial length	(L)	175.9
frontal arc	(S1)	110.4
parietal arc	(S2)	112.4
occipital arc	(S3)	100.3
maximum breadth	(B)	132.3
minimum frontal breadth	(B')	90.6
maximum frontal breadth	(B'')	113.7
upper facial height	(G'H)	54.3