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.
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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.

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.), 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
evacuation 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


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).

<table>
<thead>
<tr>
<th>Species</th>
<th>Total number</th>
<th>Total measurable</th>
<th>Isolated teeth</th>
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<tbody>
<tr>
<td>Cattle (Bos f. domestic)</td>
<td>52</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Sheep/goat (Caprovid)</td>
<td>328</td>
<td>20</td>
<td>196</td>
</tr>
<tr>
<td>Pig (Sus f. domestic)</td>
<td>14</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Horse (Equus f. domestic)</td>
<td>7</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Red deer (Cervus elaphus L.)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canid</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cat (Felis f. domestic)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hare (Lepus cf. europeaus Pallas)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water vole (Arvicola terrestris (L.))</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mole (Talpa europaeus L.)</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken (Gallus f. domestic)</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goose (Anser sp.)</td>
<td>3</td>
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</tr>
<tr>
<td>Frog (Rana temporaria L.)</td>
<td>++</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salmonid (Salmo salar L.)</td>
<td>2</td>
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Table 2. The human skull from Cottam. Human skull measurements follow those defined by Brothwell (1972).

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