

Reports from the Environmental Archaeology Unit, York 2000/70, 6 pp.

Evaluation of biological remains from excavations north-east of High Catton, East Riding of Yorkshire (site code: TSEP 218)

by

Deborah Jaques, Allan Hall, Stephen Rowland and John Carrott

Summary

A series of sediment samples, a single small bag of hand-collected shell, and a small assemblage of hand-collected vertebrate remains, from deposits revealed by excavations north-east of High Catton, were submitted for an evaluation of their bioarchaeological potential.

The biological remains recovered from the samples were of no interpretative value beyond that given in the text but may provide sufficient material (in the form of charred plant remains) for AMS dating of some of the deposits to be attempted, should this be required.

A small vertebrate assemblage was recovered from deposits mostly dating to the Roman period. The preponderance of cattle bones and large mammal (assumed to be mostly cattle) fragments is typical of many Roman animal bone assemblages. Biometrical and age-at-death data for the major domesticates should be recorded from all well-dated material, to provide useful comparanda for other material of this date.

KEYWORDS: HIGH CATTON; EAST RIDING OF YORKSHIRE; EVALUATION; ROMANO-BRITISH (4TH CENTURY); PLANT REMAINS; CHARRED PLANT REMAINS; OYSTER SHELL; VERTEBRATE REMAINS

Authors' address:

Palaeoecology Research Services
Environmental Archaeology Unit
Department of Biology
P. O. Box 373
University of York
York YO10 5YW

Telephone: (01904) 433846/434475/434487
Fax: (01904) 433850

Prepared for:

Humber Field Archaeology
The Old School
Northumberland Avenue
Hull HU2 0LN

12 December 2000

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Introduction

An archaeological evaluation excavation was carried out by Humber Field Archaeology north-east of High Catton (NGR: XX), between 10 and 28 April 2000, as part of a series of interventions along the line of the British Petroleum Teeside to Humber pipeline.

A series of sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), a single small bag of hand-collected shell, and a small hand-collected vertebrate assemblage, were recovered from the deposits. Preliminary dating evidence (from recovered pottery and coins) gave a Romano-British (4th century) date for the deposits (with traces of overlying medieval ridge and furrow in places).

All of the material was submitted to the EAU for an evaluation of its bioarchaeological potential.

Methods

Sediment samples

The sediment samples were inspected in the laboratory. Three of the samples were selected for investigation and their lithologies were recorded, using a standard *pro forma*, prior to processing, following the procedures of Kenward *et al.* (1980; 1986), for recovery of plant and invertebrate macrofossils. The washovers and residues were examined for plant remains. The washovers were also examined for invertebrates, and the residues were examined for other biological and artefactual remains.

Table 1 shows a list of the examined samples and notes on their treatment.

Hand-collected shell

Brief notes were made on the preservational condition of the shell and the remains identified to species where possible.

Hand-collected vertebrate remains

Data for the vertebrate remains were recorded electronically directly into a series of tables using a purpose-built input system and *Paradox* software. For each context (or sample) subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, where more than ten fragments were present, semi-quantitative information was recorded concerning fragment size, dog gnawing, burning, butchery and fresh breakage.

Where possible, fragments were identified to species or species group, using the reference collection at the EAU. Fragments not identifiable to species ('B' bones *sensu* Dobney *et al.* forthcoming) were grouped into categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal 1 (assumed to be caprovid, pig or small cervid), small mammal (rats, mice, voles etc), unidentified fish, unidentified bird, and completely unidentifiable.

Results

Sediment samples

The results are presented in context number order. Archaeological information, provided by the excavator, is given in square brackets.

NB: No insect remains were recovered from the samples.

Context 1003 [Upper fill of ditch 1005; a ditch containing Romano-British pottery and coins of 4th century date]

Sample 14/T (2 kg sieved to 300 microns with washover)

Moist, mid grey-brown, crumbly (working more or less plastic), sandy clay silt. A little charcoal, stones (2 to 6 mm), and animal bone were present in the sample.

The moderate-sized residue comprised about 150 cm³ of sand with a trace of gravel and bone (six fragments which included a pig metapodial, a shrew (*Sorex* sp.) femur and a single fish spine). The washover consisted of a few cm³ of charcoal (to 20 mm) with charred heather (*Calluna vulgaris* (L.) Hull) basal twig/root fragments and some charred herbaceous detritus, all of which might indicate that material from the burning of turves was present. The few uncharred seeds in the sample might well be modern.

Context 1017 [Lower fill of ditch 1005; a ditch containing Romano-British pottery and coins of 4th century date]

Sample 13/T (2 kg sieved to 300 microns with washover)

Moist, mid to dark grey-brown, crumbly (working more or less plastic), sandy clay silt. Charred grains and animal bone were present in the sample.

There was a moderate-sized residue of about 200 cm³ of gravel and sand with a little pottery (to 45 mm), and bone (four unidentified bone fragments to 50 mm, total weight 7 g). There were some well preserved charred cereal grains (wheat, *Triticum*, and barley, *Hordeum*) with a little chaff (wheat rachis fragments and one or more glume bases which may be spelt wheat, *Triticum spelta* L.), as well as a range of charred weed seeds, including moderate numbers of brome (*Bromus*), all perhaps from burning of straw, if not from grain processing. A trace of charred heather root/twig material may, again, indicate burning of turves or peat.

Context 1025 [Fill of oven/drying kiln base 1026; presumed to be contemporary with 1005]

Sample 8/T (3 kg sieved to 300 microns with washover)

Moist, light to mid grey-brown (locally more brown and more grey), crumbly (working more or less

plastic), sandy clay silt with inclusions of light orange-brown clay. Stones (20 to 60 mm), white flecks, red burnt soil and patches of fine charcoal were present in the sample.

The large residue of about 500 cm³ consisted of clean quartz sand and large (to 65 mm) gravel, and there was a small washover of about 20 cm³ of fine (<5 mm) charcoal and rootlets. Though present as traces, there were distinct suggestions of charred remains originating in, for example, burnt turves; there were also a few very eroded charred cereal grains. Four small bones were recovered—three of mouse or vole (murine/microtine) and one unidentified.

Hand-collected shell

Five poorly preserved oyster (*Ostrea edulis* L.) valves were recovered from Context 1003. Four of the valves were rather soft and many mm-sized flakes of shell had broken off the valves post-excavation. There were three left valves (two of which showed damage from polychaet worm burrowing), one right valve, and one valve for which the side could not be determined. None of the valves were measurable or showed evidence of having been opened using a knife (or similar implement).

Hand-collected vertebrate remains

A small assemblage of vertebrate remains, amounting to 533 fragments, was recovered from nine deposits. Context 1003, a ditch fill containing Romano-British pottery and coins dated to 4th century, produced most of the material (476 fragments). Preservation was quite variable, with some contexts producing well preserved bones (Contexts 1003, 1025 and 1027), whilst others (Contexts 1016, 1017 and 1033) contained fragments that were poorly preserved, with rounded edges or a battered appearance. Tooth enamel fragments from Context 1033 probably represented a single horse tooth but poor preservational conditions had caused the tooth to disintegrate. The degree of fragmentation was high for bones from Contexts 1003 and 1012, and although some breakage was modern, much was the result of butchery practices and other damage in antiquity.

Cattle and large mammal (assumed to be mainly cattle) remains predominated throughout the assemblage and included two semi-complete skulls and a number of cranial fragments. Meat-bearing elements were present, but overall probable butchery waste (head and lower limb bones) was more prevalent. The preponderance of cattle and large mammal (assumed to be mostly cattle) fragments is

typical of many Roman vertebrate assemblages. Bones from pigs and sheep/goat were also identified, but in smaller quantities; a range of elements was recorded, but too few for any meaningful patterns of disposal to be identified. Remains of dog, probably representing a single individual, were recovered from Context 1003, with further fragments in the lower ditch fill, Context 1017. Vertebrae and ribs, almost certainly part of the same skeleton, were noted in the unidentified fraction. Bird were represented by four duck fragments of mallard size (probably the same bird), several chicken (*Gallus f. domestic*) bones and a single rook/crow (*Corvus frugilegus L./C. corone L.*) ulna fragment, all recovered from Context 1003.

In total, 26 measurable fragments and 2 mandibles with teeth *in situ* were noted.

Table 2 presents a summary of the hand-collected vertebrate remains by context.

Discussion and statement of potential

All three sediment samples examined yielded very sparse remains of plants preserved by charring and these included a few well preserved cereal grains and chaff fragments. In addition, there were charred vegetative remains perhaps consistent with the burning of turves from heathland or grassland.

The hand-collected shell was of no interpretative value.

Deposits from this site, particularly Context 1003, produced a small, but mostly well-preserved assemblage of animal bone, mainly dated to the 4th century. Little work has been undertaken on material from rural sites of this date in the area, and their relationship to urban centres, whose character appears to change during this time, is not well understood. The study of vertebrate remains from rural sites of this kind may help to throw some light on the varying functions of these settlements.

Recommendations

No further work is recommended on the sediment samples unless they are to be sieved for small bone and artefact recovery and/or for remains that may allow radiocarbon dating of the deposits to be undertaken.

The size of the vertebrate assemblage is small and the number of fragments providing biometrical and age-at-death information is insufficient for detailed analysis to be undertaken. However, in view of the date of the deposits, a basic archive should be made, including measurements and tooth wear data, for material from all well dated contexts. These data will provide useful comparanda for other material of this date.

Retention and disposal

The sediment samples from this excavation may be discarded unless they are to be sieved for small bone and artefact recovery and/or to recover material for radiocarbon dating of the deposits.

The hand-collected vertebrate assemblage should be retained.

Archive

All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

Acknowledgements

The authors are grateful to Ken Steedman of Humber Field Archaeology for providing the material and the archaeological information, and to English Heritage for allowing AH to contribute to this report.

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Table 1. List of examined sediment samples from excavations north-east of High Catton, with notes on their treatment.

Context	Sample	Notes
1003	14	2 kg sieved to 300 microns with washover
1017	13	2 kg sieved to 300 microns with washover
1025	8	3 kg sieved to 300 microns with washover

Table 2. Summary of hand-collected vertebrate remains from excavations north-east of High Catton.

Sitecode	Context	No. of fragments	Notes
TSEP218	1003	476	Large assemblage but fairly fragmented. Some fresh breakage damage but much fragmentation in antiquity. Two semi-complete cow skulls. Bones mostly dominated by cattle and large mammal (assumed to be mainly cattle) remains. Also includes pig, sheep/goat, horse, dog, duck and fowl. Unidentified fraction mainly large mammal rib, shaft and cranial fragments.
TSEP218	1012	9	Juvenile cattle mandible (dp2-dp4). Unidentified component included large and medium-sized mammal shaft and rib fragment.
TSEP218	1014	3	Large mammal shaft and rib fragments.
TSEP218	1015	4	Large mammal rib fragments (3) and medium-sized mammal shaft.
TSEP218	1016	6	Mostly small and poorly preserved fragments, some fresh breakage noted.
TSEP218	1017	11	Small assemblage, including dog femur (unfused) and pelvis fragment (from medium-sized dog). Unidentified fraction included large mammal vertebra (3), rib (3) and shaft (1) fragments. Also cow second phalanx.
TSEP218	1025	1	Large mammal shaft fragment - burnt.
TSEP218	1027	2	Freshly broken scapula fragments 1 horse, 1 cow.
TSEP218	1033	21	21 fragments of very poorly preserved horse tooth enamel - probably same tooth.