

Reports from the Environmental Archaeology Unit, York 2000/50, 7 pp.

**Evaluation of biological remains from excavations at
28-40 Blossom Street, York (site code: YORYM 2000.566)**

by

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Summary

Thirteen sediment samples, a single box of hand-collected bone and a very small quantity of shell from deposits revealed by excavations at 28-40 Blossom Street, York, were submitted for an evaluation of their bioarchaeological potential.

Ancient plant macrofossils were scarce, with charred remains, including cereal grains and charcoal, being the most frequently represented. Little interpretative information could be gleaned from this material.

Only four poorly preserved fragments of oyster shell, of no interpretative value, were recovered; there were no other invertebrates.

A small assemblage of vertebrate remains was recovered from the three excavated trenches. Preservation was quite variable but was generally better for the material from deposits of Roman date. A single context (2011), described by the excavator as a Roman occupation deposit, produced almost half (215 fragments) of the total assemblage. Cattle remains from this deposit showed extensive evidence of butchery. A brief examination of the skeletal element representation for the major domesticates suggested a mixture of waste representing primary butchery, secondary carcass processing and domestic refuse.

KEYWORDS: 28-40 BLOSSOM STREET; YORK; EVALUATION; ROMAN; MEDIEVAL; POST-MEDIEVAL; PLANT REMAINS; CHARRED PLANT REMAINS; SHELL; VERTEBRATE REMAINS

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29 August 2000

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Introduction

An archaeological evaluation excavation was carried out by MAP Archaeological Consultancy Ltd at 28-40 Blossom Street, York (NGR: SE 5964.5143), in June 2000.

Thirteen sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) from separate contexts, one box (of approximately 15 litres) of hand-collected bone, and a very small quantity of hand-collected shell, were recovered from the deposits. Preliminary evidence suggested that the deposits were of Roman to post-medieval date.

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

Methods

Sediment samples

The sediment samples were inspected in the laboratory. Seven of them 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 scanned for invertebrate macrofossils, and the residues for other biological and artefactual remains.

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

Shell

Brief notes were made on the few fragments of shell recovered from Trench 2.

Vertebrate remains

All of the bone was recorded; subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, for the larger assemblages, notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks. Fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. Fragments not identifiable to species were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), bird, small mammal and totally unidentifiable.

Results

Sediment samples

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

No invertebrate remains, other than oyster shell, were recovered from the samples.

Context 1009 [?Post-Roman fill of small pit/posthole cut into cobble surface]

Sample 4/T (5 kg processed to 300 microns, with washover)

Just moist, mid grey-brown, crumbly to unconsolidated, slightly clay silty sand. Stones (>60 mm) and charcoal were present in the sample.

The large residue of about 900 cm³ consisted of sand and gravel (to 30 mm) with some large (to 70 mm) limestone fragments and moderate numbers of iron objects, probably nails. Also recorded were traces of

slag and pottery. The rather large washover of about 120 cm³ was mostly charcoal (to 15 mm), some of it oak (*Quercus*), amongst which were a few fragments of coal. The single well-preserved uncharred seed of *Viola* was probably modern (or at any rate arrived post-depositionally).

Context 1014 [Medieval fill of pit cut through Roman cobble deposit and earlier medieval deposits]
Sample 6/T (5 kg processed to 300 microns, with washover)

Just moist, mid grey-brown, crumbly to unconsolidated (working just soft), slightly clay silty sand. Stones (2-60 mm) and ?pot were present in the sample.

There was a large residue of about 800 cm³, mostly sand and gravel, with some modern tar (from tarmac? This may also have accounted for the strong yellowish coloration of the alcohol in which the washover had been stored). The small washover of about 20 cm³ comprised charcoal (to 10 mm), with a few charred cereal grains (well preserved specimens of oats, *Avena* and hexaploid wheat, *Triticum*), as well as a few uncharred seeds of plants likely to have grown in the vicinity of habitation but of little other interpretative value.

Context 1019 [Medieval plough soil]
Sample 7/T (5 kg processed to 300 microns, with washover)

Just moist, mid grey-brown, crumbly to unconsolidated, slightly clay silty sand. Stones (2->60 mm) and fragments of rotted oyster shell were present in the sample.

The large residue of about 900 cm³ was of sand and gravel and included one largish fragment of gritstone (to 75 mm). Oyster shell fragments and fish bone were also present. The small washover of about 30 cm³ of charcoal (to 10 mm) and coal included a very few poorly preserved charred cereal grains (oats and wheat) and ?modern uncharred weed seeds.

Context 1020 [Roman layer of mixed gravel and sandy silt over cobble surface]
Sample 9/T (5 kg processed to 300 microns, with washover)

Just moist, light to mid grey-brown, crumbly to unconsolidated (working soft and sticky when wetted), slightly clay silty sand. Stones (2-60 mm)

and fragments of mammal bone were present in the sample.

There was a large to very large residue of about 1200 cm³ of sand and gravel. The small washover of about 40 cm³ comprised charcoal and a little coal amongst which were a few charred cereal grains (oats, wheat and unidentifiable) whose preservation varied from good to poor, and a very few charred and uncharred seeds mainly likely to represent weeds of cultivation.

Context 2011 [Roman occupation layer]
Sample 8/T (5 kg processed to 300 microns, with washover)

Just moist, light to mid grey-brown, unconsolidated, silty sand. Stones (2- >60 mm) were present in the sample.

The large residue of about 850 cm³ was of sand and gravel; the very small washover consisted of a few cm³ of charcoal (to 10 mm) in which were single grains of oats and hexaploid wheat. Small, unidentified fragments of bone were also noted within the residue.

Context 2012 [Medieval fill of cut 2015 containing mixed silts and backfilled Roman deposits]
Sample 3/T (5 kg processed to 300 microns, with washover)

Just moist, mid grey-brown, crumbly to unconsolidated (working just soft), slightly clay silty sand. Stones (2- 60 mm) were present in the sample.

There was a large residue of about 800 cm³ of sand and gravel and a small washover of a few cm³ of charcoal (to 10 mm) with some charred cereal grains (hexaploid wheat, bread/club wheat and ?barley, *Hordeum*) and traces of weed seeds. The preservation of the grain was very variable. A few fragments of unidentified bone were also recovered.

Context 2025 [Fill of Romano-British pit]
Sample 12/T (5 kg processed to 300 microns, with washover)

Moist, light to mid grey-brown (with lighter and darker mottling on mm- and cm-scales), crumbly to unconsolidated (working soft), slightly clay sandy silt/silty sand. Fragments of large mammal and ?bird bone were present in the sample.

The large residue of about 900 cm³ was of sand and gravel with some bone fragments (to 60 mm); the small washover of about 30 cm³ comprised charcoal (to 10 mm) but included some material which might be burnt peat as well as some other charred organic material (all in the same size range). Scraps of bone were noted from this sample. These were mostly unidentified but included a mouse or vole (murine/microtine) humerus.

Shell

Two contexts (2011 and 2014) from Trench 2 produced four fragments of oyster shell. These fragments were rather poorly preserved, with soft, flaky and eroded edges.

Vertebrate remains

Trench 1

A very small assemblage of vertebrate remains, amounting to 78 fragments, was recovered from Trench 1. Almost half of the fragments were modern in date, whilst most of the remainder were recorded in the 'unidentified' category. Preservation was reasonably good, although some fragments did appear to be 'battered'. Species identified included cattle, caprovid and pig. A number of unidentified fish fragments were noted from Context 1008, whilst a single gadid vertebra was identified from post-medieval pit fill 1014. In total, three measurable fragments were recorded from the archaeological deposits.

Trench 2

This trench produced a larger and more promising assemblage of bone. A total of 355 fragments, of which 82 were identified to species, was recovered. Sixty percent of the material (215 fragments) was from a Roman occupation layer (Context 2011), whilst 126 fragments were from medieval 'trench' and garden soil deposits.

Vertebrate remains from the Roman deposits were well preserved, although somewhat fragmented. Contexts 2012 and 2014 (medieval) produced material which had a rather battered appearance and included a number of eroded fragments. The possibility that some of this material has been redeposited could account for the poorer preservation of these remains. Human bones identified from these two deposits corroborate this supposition.

The high degree of fragmentation observed within the material from Context 2011 seems to be mainly the result of the systematic processing of cattle carcasses. Split cattle metapodials and radii and heavily chopped pelvises were recorded, whilst the numerous large mammal bones (assumed to be cattle) in the 'unidentified' fraction included chopped vertebra and rib fragments. Butchery waste did not, however, form the whole of the assemblage. Caprovid and pig remains were represented by a range of skeletal elements, including both meat-bearing and non-meat-bearing bones. Too few fragments were present from the medieval deposits for useful information to be obtained. The major domesticates (cattle, caprovid and pig) were present, together with a few cat bones and a single horse tooth. Human remains, as mentioned above, included part of a mandible (no teeth), scapula and ulna fragments and a metacarpal.

This assemblage produced only 15 measurable fragments and nine mandibles with teeth *in situ* for use for providing biometrical and age-at-death data.

Trench 3

Material from this trench amounted to 10 unidentified fragments from Contexts 3014 (modern) and 3017 (medieval plough soil).

Discussion and statement of potential

The deposits examined did not yield assemblages of plant macrofossil remains of much interpretative value and neither those examined nor those so far uninvestigated are probably worthy of further study. There were no macro-invertebrates other than a few marine molluscs.

Vertebrate were quite variable in character. Material from Trenches 1 and 3 was rather fragmented and poorly preserved, whilst Trench 2 produced a small, but well preserved assemblage, particularly from Context 2011 (a Roman occupation layer). Fragments producing biometrical data were scarce, partly the result of butchery practises in antiquity and partly because the reworking of some deposits had caused additional damage to the bones. Unfortunately, the

dating is too broad for any meaningful interpretation of the assemblage.

Recommendations

No further work is recommended on the current material.

The potential of deposits at this site to yield useful quantities of plant remains seems low, but if primary contexts rich in charred material are encountered they should certainly be sampled and archaeobotanical analyses undertaken, especially if the nature of material used as fuel (peat, as well as charcoal and coal?) is a matter of archaeological interest.

These deposits (particularly those in Trench 2) do show some potential for the preservation of vertebrate remains and further excavation may recover a moderate-sized assemblage of well preserved bone. Tightly dated assemblages from the Roman period have rarely been collected and few reports on such assemblages have been published. A bone assemblage from this site would only be worthy of study if a narrow dating framework could be achieved.

Retention and disposal

There is no obvious justification for retaining any of the sediment samples currently in hand. The bone should be retained for the present.

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 Kelly Hunter of MAP Archaeological Consultancy Ltd for providing the material and the archaeological information, and to English Heritage for allowing AH to contribute to this report.

References

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Table 1. List of sediment samples from excavations at 28-40 Blossom Street, York, with notes on their treatment.

Context	Sample	Notes
1007	1	Sample examined – no further action
1008	2	Sample examined – no further action
1009	4	5 kg sieved to 300 microns, with washover
1012	5	Sample examined – no further action
1014	6	5 kg sieved to 300 microns, with washover
1015	13	Sample examined – no further action
1016	10	Sample examined – no further action
1019	7	5 kg sieved to 300 microns, with washover
1020	9	5 kg sieved to 300 microns, with washover
1021	11	Sample examined – no further action
2011	8	5 kg sieved to 300 microns, with washover
2012	3	5 kg sieved to 300 microns, with washover
2025	12	5 kg sieved to 300 microns, with washover