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Evaluation of biological remains from Old Hall, Baxtergate, Hedon (site code: HBX96)

by

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Summary

Sediment samples, a small assemblage of hand-collected vertebrate remains, a small bag of marine molluscs and some wood samples from Medieval and Post-medieval deposits at Baxtergate, Hedon, were submitted for evaluation of their potential for bioarchaeological analysis.

The plant and invertebrate remains were of no interpretative value but the vertebrate assemblage has considerable potential.

It is recommended that these deposits should not be destroyed without appropriate excavation and sampling.

Keywords: BAXTERGATE; HEDON; EVALUATION; MEDIEVAL; POST-MEDIEVAL; PLANT REMAINS; INVERTEBRATE REMAINS; VERTEBRATE REMAINS; MOLLUSCS; WOOD

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Introduction

Excavations were carried out by Humberside Archaeology Unit at Old Hall, Baxtergate, Hedon, during 1996. Twelve General Biological Analysis samples ('GBAs' *sensu* Dobney *et al*. 1992), six samples for bulk-sieve processing, eleven spot samples of wood, a single box (45 x 33 x 25 mm) of hand-collected animal bones (mainly from Trenches A and C), and a small bag of marine molluscs, were recovered from deposits dating to the Medieval and Post-medieval periods.

Methods

All of the GBA and BS samples, the bone, the molluscs, and the wood, were inspected in the laboratory. Subsamples of 3 kg were taken from one of the GBAs and one of the BS samples for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986). The BS samples 24, 25 and 27 (from Context 421) were amalgamated for processing and one of the GBA samples was bulk-sieve processed to recover small bones seen during excavation.

The flots, washovers and residues resulting from processing were examined for their content of plant and invertebrate macrofossils. Notes were made on the quantity of fossils, principal taxa, and main ecological groups.

All of the hand-collected animal bone was examined and records made of preservation and quantities, and identifications made where appropriate. The residues resulting from processing were sorted and the bones retrieved were viewed and briefly recorded.

Results

Sediment samples

The results are presented in context number order by trench, with information provided by the excavator enclosed in square brackets.

Trench A

Context 48 [pit/ditch], Samples 28-31

All of the samples were silty clays. Sample 28 contained modern roots, and very rotted bone and shell. Sample 29 also contained modern roots. Sample 30 had fewer root fragments present, but decayed wood was noted. None of the samples were processed. It is more likely that this material represents natural build-up/accumulation than the fill of an industrial pit.

Trench B

Context 224 [?palaeochannel/?ancient pond], Samples 20-21

The samples were all of alluvial clay with a fine sand component. None of the samples were processed. Conditions of very low water energy (probably almost still water) are indicated. Unfortunately, a more detailed interpretation was not possible under the constraints of an

evaluation budget. It is unlikely that detailed work on the macro-fossil remains would produce any useful information, but sediment analysis may give information as to water flow speeds during deposition.

Context 232 [?Post-medieval cess-pit], Samples 1-4

Sample 3 contained the skull, mandibles, radius, rib and vertebrate fragments from a juvenile pig. A quick inspection of one of the unprocessed samples (Sample 2) from the same context revealed rib, vertebrae, calcaneum and pelvis fragments, almost certainly from the same individual. It is highly likely therefore, that most or all of the body of this juvenile pig was dumped in the pit.

Sample 3/T (3 kg)

Moist, mid brown, soft to plastic (working plastic), silty clay with 1 mm scale brown mottling and a slight crumb structure. Mammal bone was present.

There was a very small residue of approximately 150 cm^3 consisting mainly of brick/tile to 10 mm and quartz sand, with a little coal (to 25 mm), gravel, slag (to 20 mm), bone (to 10 mm) and oyster shell (to 5 mm). The tiny 'washover' contained traces of charcoal <5 mm and of cinder <2 mm, with a little herbaceous detritus, most of which appeared to be root epidermis, with rare fragments of wood <2 mm. There were single individuals of fruits or seeds of four identifiable taxa, three of which were probably weeds, and rare earthworm egg capsules. The plant remains do not provide an interpretatively significant group.

The very small flot yielded only a few insect remains of no interpretative value.

Trench C

Context 421 [Early medieval occupation surface], Sample 24+25+27/BS (27 kg)

Moist, mid-dark grey/brown to light-mid brown, Crumbly, working soft to slightly plastic, slightly sandy silty clay, with more silt and more clay in patches. Stones in the size range 2-6 mm and bird bone were present and charcoal was common.

The small washover of about 500 cm^3 from bulk-sieving of three samples from this context consisted mainly of roots, with charcoal to about 15 mm. There were traces of coal (to 5 mm) and of bone (including fish bone); the only identifiable plant remains were a few charred wheat grains (probably bread wheat) at concentrations far below one per kg, with a single oat (*Avena* sp.) grain and a charred legume seed of about 4 mm diameter, perhaps a *Vicia* sp. These remains do not offer interpretatively useful information.

The residue consisted mostly of very small and small stones (<6-20 mm), gravel and sand. Charcoal, large mammal, bird and fish bone were present (not all of the bones and charcoal were removed). A few pieces of slag, a moderate amount of pottery, one fragment of nutshell and two charred seeds were also present.

Context 425 [Late medieval occupation surface], Sample 6/BS (5.5 kg)

Just moist, dark brown, crumbly (working slightly plastic when wet), slightly sandy silty clay. Slag, charcoal and mammal bone were present and very rotted marine molluscs were abundant.

The residue was composed mostly of molluscs and slag, neither of which were entirely removed. The mollusc component

comprised: 690g of very rotted oyster shell; many fragments of other, unidentified, marine shell; and twenty fragments of cockle shell (possibly all from a single individual). Sand, gravel, small stones, and a few fragments each of fish bone, large mammal bone, tile and pottery, were all present. The washover contained a large number of very small, unidentifiable, fragments (1-2 mm) of marine shell.

Trench D

Context 528 [medieval pit - ?cesspit/?industrial], Samples 7-12

Only Sample 8 was processed.

Sample 8/T (3 kg)

Moist, light-mid grey/brown to light brown, stiff to just crumbly (working plastic), silty clay with 1-10 mm scale mottling and probably containing ash. Chalk stones were present and charcoal was common.

There was a very small residue of about 200 cm^3 which was mainly of gravel and bone (including fish bone) to 30 mm, with traces of charcoal to 10 mm and some pellets of undisaggregated clay or silt matrix. The washover made up about 10-15% of the volume of the whole residue and consisted mainly of charcoal with a few uncharred plant fragments. There were a few very poorly preserved charred wheat (*Triticum*) grains (no more than one or two per kg), perhaps bread wheat, and a small unidentified charred legume, perhaps a wild *Vicia* sp. Other seeds were a mixture of charred and uncharred weeds, with several uncharred seeds of the salt-marsh rush, *Juncus gerardi* L., a species likely to have been common along the river estuaries near Hedon.

The small flot consisted mostly of plant detritus and fine charcoal (<5 mm), with very few insects, many ?*Heterodera* sp. (soil nematode) cysts, several mites and two *Chara* sp. The insect taxa were mostly decomposers but too few in number (both taxa and individuals) to be of any interpretative significance.

Wood

Eleven samples of wood were submitted for identification. With the exception of Sample 5 (Context 232), which was too small to be identified, and Sample 10 (no context given), which was a fragment of partly-charred ?alder (cf. *Alnus*) up to 30 mm in maximum dimension, all the material consisted of anatomically similar 'roundwood' varying from 15 to 90 mm in diameter. The unusual structure of the wood (obscure annual rings, rather even-sized, evenly-scattered vessels, rays of mainly 3-5 cells in width), making identification very difficult, and the somewhat curved or twisted nature of some of the specimens, suggests that this may be root wood and its identification should not perhaps be pursued further. It is probably the case, however, that the excavator's suspicion that this was root rather than branch wood can be confirmed.

Vertebrate remains

Preservation of the hand-collected vertebrate material varied, but on the whole the remains were reasonably well-preserved and were fawn or brown in colour. Material from a small number of contexts, including Contexts 26 and 48 (Trench A), was rather battered and eroded in appearance, whilst bones from Contexts 418 and 421 (Trench C) were very well-preserved.

Few bones showed evidence of fresh breakage and dog gnawing, although the

proportion of butchered fragments was relatively high (20-50%). Butchery was not in evidence on a large scale, but it was noted that sheep-sized vertebrae had been chopped longitudinally, indicating the splitting of carcases.
A total of 178 identified and 277 unidentified fragments were recorded; these included 43 measurable fragments and 5 mandibles with teeth. The bulk of the remains represented major domesticates such as cattle, caprine and pig. A large dog canine was also noted from Context 47.

The remains of geese were also present, in particular, from Context 421 (27 fragments). A range of elements was noted, many with deep knife or chop marks. They appeared to be of a similar size to that of the greylag geese (*Anser anser* (L.), although some fragments appeared to be more robust, possibly indicative of a large domestic variety. The remains may, therefore, represent both wild and domestic individuals. A single teal (*Anas crecca L.)* humerus and three chicken/pheasant fragments were also recorded from the same context.

The hand-collected fish remains comprised mainly Gadidae fragments, including one of ?cod (cf. *Gadus morhua* L.), and a ?haddock (*Melanogrammus aeglefinus* (L.)) cleithrum.

The residue from one of the bulk-sieved deposits (Samples 24, 25 and 27, Context 421), produced large mammal, goose and duck fragments, but the main component was a moderate number (approximately 150 fragments) of well-preserved fish remains. These included thornback ray (*Raja clavata* L.), herring (*Clupea harengus* L.) and eel (*Anguilla anguilla* (L.)) vertebrae, remains of cod (cf. *Gadus morhua* L.) and numerous other Gadidae fragments. Additionally, material from another sample (Sample 6, Context 425) included Gadidae fragments and an eel prevomer. A few of the smaller fish vertebrae appeared to have been crushed (possibly by being eaten) and some of the larger Gadidae vertebrae had been chopped longitudinally.

Hand-collected molluscs

Sixteen large fragments of very rotted oyster shell (representing approximately 6 individuals) and one fragment of cockle shell were recovered.

Statement of potential

The presence of well-preserved vertebrate material, especially from Trench C (particularly the numerous fish remains from Context 421) suggest that a large and important assemblage would be recovered should further excavation and sampling be undertaken in this area. Few large vertebrate assemblages of medieval and post-medieval date have been recovered from this region and large, systematically recovered, fish bone assemblages of these dates are rare. General comparisons could be made with material from the sites at Lurk Lane and Eastgate, both in Beverley (Scott 1991, 1992), and sites in York such as The Bedern (Hamshaw-Thomas, in prep.) and medieval Coppergate.

The mollusc, invertebrate, wood and plant remains have no further potential for interpretative analysis.

Recommendations

It is possible that further excavation would recover tightly-dated and well-preserved

vertebrate material and any destruction of these deposits should be accompanied by a systematic sampling strategy, with appropriate provision for a post-excavation programme of detailed analysis.
Care should be taken not to overlook any deposits which might contain plant and invertebrate macrofossils preserved by anoxic waterlogging but such material may be at most locally present.

Retention and disposal

The sediment samples should be retained for bulk-seive processing for vertebrate remains and the hand-collected bone assemblage should also be retained for future research purposes. All flots and residues should be retained in the longer term.

Archive

All extracted fossils and flots are currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here. The finds from the BS residues have been returned to the Humberside Archaeology Unit.

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