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**An evaluation of biological remains from excavations at
Merchant Adventurers' Hall, York (site code: 1995.1)**

by

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Summary

Four samples of sediment and two boxes of hand-collected bone from deposits of 14th century to modern date excavated at Merchant Adventurers' Hall, York were submitted for an evaluation of their potential for bioarchaeological analysis.

Further examination of charcoal recovered from the deposits may yield a little information if there are relevant archaeological questions to be addressed.

The small size of the excavated bone assemblage precludes any further detailed recording and interpretation.

Other remains were rare and showed no potential.

Keywords: MERCHANT ADVENTURERS' HALL; YORK; CHARRED PLANT REMAINS; BONE

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Introduction

Excavations at Merchant Adventurers' Hall, York in 1995 by York Archaeological Trust revealed a series of deposits of 14th century to modern date in two trenches. Samples of sediment and some hand-collected bone from these deposits have been examined to evaluate their bioarchaeological potential.

Methods

Sediment samples

Four samples of sediment ('GBAs' *sensu* Dobney *et al.* 1992) were submitted. All of the samples were inspected in the laboratory and a description of their lithologies recorded using a standard *pro forma*. Subsamples of 1 kg were taken from each of the samples for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

Plant macrofossils were examined from both the residues and the washovers resulting from processing, and the washovers were examined for invertebrate remains. None of the samples were deemed suitable for examination for the eggs of parasitic nematodes.

Bone

Two standard-sized boxes (31 x 31 x 22 cm) of animal bones were recovered. Contexts containing bone from Trench 1 were dated between 14th-18th centuries (most bone being recovered from 14th/15th and 17th century levelling dumps). Vertebrate remains from Trench 2 were dated to between late 16th/17th centuries and the early modern period, although most were of early post-medieval (16th/17th century) date.

Results

The sediment samples

The results of the investigations are presented in context number order, with information provided by the excavator in brackets.

Artefacts were removed from the residues to be returned to the excavator.

Context 1016 [Lower spit of dump 1015 - 17th century]
Sample 2

Moist, moderately heterogeneous mid to dark grey-brown crumbly (working soft and plastic) sandy silty clay with patches of pale grey clay, mid olive/buff clay, yellow sand and some orange and reddish-brown patches. Rotted mortar, brick/tile, pot, charcoal and mammal bone were present and ash was common in the sample.

The large washover was almost entirely charcoal (to 5 mm) with a little plant detritus and sand and a single poorly preserved beetle fragment (*Aphodius* sp.).

The moderately large residue was mostly sand with a little rotted ?limestone/chalk (to 10 mm), brick/tile, cinder, rotted mortar, charcoal (1 to 2 mm), large mammal bone, fish bone (including herring, eel and ?small gadid), rotted oyster shell, slag and pot.

Context 1044 [Below ?central spit (1043) of a thick dump - 14/(15)th century ?pre-Hall levelling dumps]
Sample 8

Moist, dark brown, crumbly to unconsolidated, very slightly clay silty sand. Very small to medium-sized stones (2 to 60 mm), small fragments of burnt bone, and brick/tile were present and charcoal was common in the sample.

The large washover was entirely of charcoal and cinder (both to 5 mm).

The moderately large residue was mostly sand with some cinder (to 25 mm) and charcoal (to 6 mm) and a little coal (to 8 mm), mortar, large mammal bone (some burnt) and fish bone (some also burnt).

Context 2039 [Possible occupation deposit - early 17th century]
Sample 22

Just moist, dark brown, unconsolidated, sandy silt with very small to large stones (2 to 60+ mm), slag, brick/tile, mammal bone and modern roots present.

The large washover was charcoal (to 5 mm) and roots.

The moderately large residue was mostly sand with a little pot (to 30 mm), brick/tile, coal (to 8 mm), cinder (to 12 mm), mortar, charcoal (to 6 mm), large mammal bone (some burnt), fish bone and roots.

Context 2042 [Levelling dumps - late 16th/17th century]
Sample 26

Moist, dark grey-brown, crumbly to unconsolidated, slightly clay sandy silt. Mortar, pot, cinder, charcoal, mammal bone (some burnt) and modern roots and rootlets were present and brick/tile was common in the sample.

The large washover was mostly charcoal (to 5 mm) with some roots and rootlets.

The moderately large residue was mostly sand with some cinder and charcoal (to 6 mm) and a little brick/tile, slag, coal (to 8 mm), fish bone, burnt mammal bone, mammalian calcified cartilage from the sternum area and roots and a few stones.

Bone

Trench 1

A total of sixteen bone-bearing contexts were viewed and brief notes were made for each. Preservation (where recorded) was mostly described as 'good' or 'fair' with colour varying between, but rarely within, contexts. Some fragments from Context 1042 (14th/15th century) were pale with a shiny, somewhat 'greasy', appearance and the nature of the broken surfaces

(i.e. angularity) was also 'variable' (both 'rounded' and 'battered' fragments being recorded).

A total of 212 fragments were recovered from this limited area of excavation, 112 from 17th century levelling dumps and only 68 from 14th/15th century deposits. Species represented included the common domesticates, i.e. cattle, caprine, pig and chicken, as well as remains of goose and a single goat horncore. Cervid remains included one fallow deer (*Dama dama* (L.)) mandible (Context 1043, 14th/15th century) and a large cast red deer (*Cervus elaphus* L.) antler fragment (Context 1016, 17th century) showing chop and saw marks. Fish were represented by a few large gadid vertebrae and skull fragments and a crushed pleuronectid (flatfish) vertebra, indicating the presence of faecal material. From the earliest levels (Contexts 1042 and 1043) two Turdidae bones (?blackbird, *Turdus merula* L.) were identified. These could either represent food debris or the remains of individuals which died of natural causes.

Trench 2

The twenty-four bone-bearing contexts from this trench contained a total of 426 fragments. Again, most of the material came from deposits described by the excavator as levelling dumps, with the exception of 65 fragments from a possible occupation deposit. Preservation of material from Trench 2 tended to be scored as 'good', with 'angularity' being recorded as 'spikey'. The colour of the bone from this trench was mainly brown or fawn.

Most of the identifiable fragments, again, represented the remains of the major domesticates, i.e. cattle, caprine and pig, with a smaller number of chicken and goose fragments also present. Other bird fragments included a turkey (*Meleagris gallopavo* L.) humerus (chopped across the proximal articulation) and a pigeon (*Columba* sp.) coracoid, both from Context 2029 (late 17th century). In addition, two rabbit bones (Contexts 2025 and 2039) were noted, along with a single proximal femur (Context 2031, late 17th century) identified as fallow deer (*Dama dama* (L.)). The fish remains comprised mainly large gadid fragments.

Two sheep metatarsals from early modern contexts (2004 and 2009) exhibited a pathological condition, manifested as a vertical ridge of remodelled bone on the proximal anterior aspect of the shaft, positioned parallel and medial to the line of the median extensor tendon. To date, this condition (of unknown aetiology) has been noted from several other collections of sheep metatarsals, mainly of medieval and post-medieval date (Carrott *et al.* 1993a, 1993b; Dobney *et al.* 1994, in press; O'Connor 1984).

Discussion and statement of potential

Ancient plant remains were confined to charcoal fragments (almost certainly from wood used for fuel), further examination of which may yield a little information if there are relevant archaeological questions to be addressed.

The very few invertebrate remains are of no interpretative value.

Although a small proportion of the excavated bone is obviously reworked (judging by the variability of preservation, colour and angularity), it is clear that most of the material is well preserved, and from deposits which appear to fit within a well defined chronological framework. However, the small size of the excavated bone assemblage precludes any further detailed recording and interpretation. The fact that most of these deposits represent major dumping episodes indicates that a potentially large vertebrate assemblage would be recovered should any further excavations be undertaken. Large well dated assemblages of late medieval and post-medieval date are uncommon both regionally and nationally and thus should be considered as of high priority for further research. Unless other kinds of deposits are encountered at the Merchant Adventurers Hall, analyses of such an assemblage would provide little evidence for most of the social and domestic activities relating to the use of the Hall (since the bones are mainly from dumps associated with construction works). However, the vertebrate remains could provide important zooarchaeological

information regarding possible early stock improvement (traditionally associated with the advent of the agricultural revolution) and changes in husbandry practices (evinced at other sites by shifts in age-at-death profiles), as well as the nature of exploitation of marine and riverine resources.

Recommendations

All of the remaining sediment samples should be sieved (to 500 :m) to recover small bones to be incorporated into the existing bone assemblage.

If deposits with organic preservation by anoxic waterlogging, higher concentrations of charred plant material, or larger quantities of bone are exposed by further excavation every effort should be made to sample and investigate them.

Retention and disposal

The hand-collected bone assemblage and any bone recovered from sieving of sediment samples (see Recommendations above) should be retained for the present.

Archive

All extracted fossils from the test subsamples, and the residues 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.

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