

Palaeoecology Research Services

**Evaluation of biological remains from excavations at
62-68 Low Petergate, York
(site code: YORYM 2002.421)**

by

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Summary

An archaeological evaluation excavation was carried out by York Archaeological Trust at 62-68 Low Petergate, York, during February 2003. Five sediment samples and one box of hand-collected bone, recovered from deposits of 13th century to early modern (18th/19th century), were submitted to PRS for an evaluation of their bioarchaeological potential.

Interpretatively useful assemblages of plant and invertebrate macrofossils, indicating a source in something akin to 'stable manure', were recovered from both of the processed subsamples from Trench 1 (though larger subsamples would be required for any further study). Examination of the borehole samples indicated the survival of biological remains in other areas and at greater depths than encountered by the evaluation trenching.

A small, but for the most part, well preserved and tightly dated, vertebrate assemblage was recovered from this site. Several deposits from Trench 1 were described as 'dump' or 'accumulation' deposits within a yard area, however, there were no large concentrations of bone or horncores, as seen during previous works at the nearby Hornpot Lane. A small component of the assemblage may have derived from hornworking but most of the material had the appearance of domestic refuse.

Every effort should be made to preserve remains in situ and any further intervention which threatens the deposits should certainly be accompanied by a programme of sampling and post-excavation analysis of plant and invertebrate remains. Although the small size of the recovered bone assemblage precludes any further detailed recording and interpretation, these remains do show the potential of the deposits in this area for preserving bone, and this should be borne in mind if further excavation is undertaken.

KEYWORDS: 62-68 LOW PETERGATE; YORK; EVALUATION; 13TH CENTURY TO EARLY MODERN (18TH/19TH CENTURY); CHARRED PLANT REMAINS; PLANT REMAINS; INVERTEBRATE REMAINS; VERTEBRATE REMAINS; 'STABLE MANURE'; WOOL-CLEANING; ?WOODWORKING; HORNWORKING

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Evaluation of biological remains from excavations at 62-68 Low Petergate, York (site code: YORYM 2002.421)

Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at 62-68 Low Petergate, York (NGR SE 6039 5204), between the 17th and the 21st of February 2003.

The works consisted of three small trenches and the monitoring of seven boreholes. The site lies in the core area of the ancient city with the street of Low Petergate forming the south-west boundary of the property. Business premises bound the site on parts of the north-western side whilst the Minster School occupies land immediately to the north-west, north and north-east. The church and churchyard of Holy Trinity, Goodramgate bounds the site on the east with the narrow lane of Hornpot Lane defining the property's south-eastern limit. The primary aim of the evaluation was to provide data concerning the character, composition, date, extent and state of preservation of any archaeological deposits at the site.

Provisional dating evidence from the deposits encountered in the trenches was from 13th century to early modern (18th/19th century).

Five sediment samples (2 'GBA' from Trench 1, and 3 'SPOT' from 2 of the boreholes; sample types *sensu* Dobney *et al.* 1992) and a single box of hand-collected bone were submitted to PRS for an evaluation of their bioarchaeological potential.

Methods

Sediment samples

The submitted 'GBA' sediment samples were inspected in the laboratory 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 flots resulting from processing were examined for plant and invertebrate macrofossils. The residues were examined for larger plant macrofossils and other biological and artefactual remains. Insect preservation was recorded using the scale of Kenward and Large (1998).

Three small samples from two of the boreholes were also submitted for an evaluation of their bioarchaeological potential and were examined as 'SPOT' samples.

Hand-collected vertebrate remains

For the hand-collected vertebrate remains records were made concerning the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones which could not be identified 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) and totally unidentifiable.

Results

Sediment samples

The results for the 'GBA' samples are presented in context number order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers.

Context 2109 [organic silt, ?dump/accumulation in yard, 14th century]

Sample 1/T (1 kg sieved to 300 microns with paraffin flotation; approximately 6 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown to dark grey, fibrous and slightly layered, amorphous organic sediment and silt, with fine and coarse herbaceous detritus, and some patches of mid grey-brown, sticky (working soft), clay silt. Stones (6 to 60 mm) and fragments of brick/tile were present.

There was a small flot of appreciable numbers of insect remains, plant debris and a few well-preserved seeds.

No insect species were particularly abundant. Preservation was variable but generally good (E 1.5-3.5, mode 2.5 weak; F 1.5-2.5, mode 2.0 weak). A beetle assemblage of typical urban character was present, mostly species found in decaying matter, ranging from dryish to foul, with no habitat type dominant. There were hints – no more from this fairly small assemblage – of the presence of stable manure ('house fauna', characteristic decomposers, grain weevils (*Sitophilus granarius* (Linnaeus), *Ulopa* sp., indicative of peat or turf, and small numbers of aquatics such as might arrive in drinking water). These may be no more than 'background fauna' scatter, however.

There was a single adult sheep ked (*Melophagus ovinus* (Linnaeus)), usually interpreted as the product of wool cleaning when found in occupation areas, a flea and a large louse (probably either from humans or pigs). The spider beetle *Tipnus unicolor* (Piller and Mitterpacher), represented by one individual, and grain weevil suggest a post-Conquest date, which is in accord with the 14th century date ascribed to the deposit.

The very large residue of about 700 cm³ was mainly quite fine woody debris, for the most part small (<5 mm) flakes and even smaller fragments (the lighter fraction of the residue making a washover of about 500 cm³). For the rest there was some brick/tile and grit and a little sand as well as some very dark grey daub-like material. From the low concentrations of well-preserved identifiable plant remains (fruits and seeds) present it appeared that the organic components

amongst the wood debris (which presumably itself originated in woodworking) probably included straw, peat, and some food (there were some extremely well-preserved fig, *Ficus carica* L. seeds and modest amounts of wheat/rye, *Triticum/Secale* 'bran'. This kind of material might easily have been stable manure.

A larger subsample (3-5 kg) of this material should provide plant and insect assemblages of useful size for reconstruction of local conditions and, for the insects, acquisition of useful space/time records for future synthesis.

Context 2113 [organic, partly laminated silt; ?dump/accumulation in yard, 14th century]

Sample 2/T (1 kg sieved to 300 microns with paraffin flotation; approximately 8 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown to very dark grey to black, fibrous and layered (in places) to crumbly (working soft), amorphous organic sediment and silt, with fine and coarse herbaceous detritus, and some patches of light grey clay silt.

Moderately large numbers of often quite well preserved insects were present in the flot (E 2.0-3.5, mode 2.5 weak; F 1.5-3.0, mode 2.0 weak). The burrowing *Aglenus brunneus* (Gyllenhal) was rather numerous and may have been a post-depositional invader in this case. Various typical occupation-site species found in decomposing matter were present, indicating dryish to foul material. A louse, probably *Damalinia* sp., and a sheep ked (*Melophagus ovinus* (Linnaeus)) seem likely to have been waste from wool-cleaning, and other domestic ejectamenta were suggested by some 'house fauna' taxa (including a flea, *Blaps* sp., *Ptinus* sp., *Mycetaea hirta* (Marsham) and several *Xylodromus concinnus* (Marsham)) together with numerous lice, probably *Pediculus humanus* Linnaeus (but filmy and requiring mounting on microscope slides for critical identification). There were hints of peat, or perhaps imported water, from *Acidota crenata* (Fabricius), *Cyphon* sp. and some aquatics.

The small flot contained quite a few *Sphagnum* leaves, together with the beetles. The huge residue of about 900 cm³ was almost all woody fragments with just a little grit and sand. There were a few clasts which had some yellowish or brownish concreted material, perhaps iron-rich (from an iron object?) or faecal in origin. Identifiable fruits and seeds were mostly well preserved but low in concentration. Some remains of heather (*Calluna vulgaris* (L.) Hull) may have come from turf or peat and there were other remains suggesting hay and straw; again, stable manure is a possible source of this suite of plant fossils.

A subsample of 3 kg or so should provide an invertebrate assemblage of useful size for reconstruction (in association with botanical evidence) of the materials incorporated into this deposit. Special attention should be paid to the lice, to determine whether they are human or pig parasites.

Borehole samples

In each case, a few tens of grammes were washed quickly through a 300 micron sieve and scanned briefly. The following notes were made:

Context 404 (sample from borehole P4 1.3-1.45 m)

The sediment was a very dark grey to black/orange, crumbly, ?ashy silt; the residue consisted mainly of cinder like inorganic material with abundant, mainly very fine (<2 mm) flaky very decayed bark; there were flecks of slag like material and the sample in general suggested an origin in some industrial activity.

Context 506 (sample from borehole PH5 2.72-2.86 m)

In the laboratory, this was a very dark grey to black, slightly sandy humic silt with at least one band of compressed, felted plant detritus which appeared to be very decayed *Sphagnum* peat.

Context 512 (sample from borehole PH5 3.87-4.00 m)

This was a very dark grey-brown to black, slightly sandy humic silt to silty organic detritus: from a brief examination it appeared to contain some very decayed strawy debris, perhaps straw *per se*; there was also much fine humic material and silt which had passed the sieve.

Hand-collected vertebrate remains

The vertebrate remains submitted for assessment were recovered from two of the three excavated trenches (Trenches 1 and 3). Fourteen contexts, 9 from Trench 1 and 5 from Trench 3, produced a total of 149 fragments. Deposits within Trench 1, from which bone was recovered, were all dated to the 14th century, whilst those in Trench 3 were mostly 13th-16th century in date. A single deposit (Context 2301) was dated as 18th/19th century.

Bone preservation was recorded as 'good' for the material from both trenches, with fragments from several deposits (Contexts 2111 and 2113) being

stained black in colour as a result of the organic content and waterlogged nature of the sediments within which they were buried. A small number of fragments (from Contexts 2107, 2310 and 2313) also exhibited a greenish tinge, probably because of close proximity to copper alloy artefacts or metal working debris. Evidence for dog gnawing and butchery was minimal and the recovered assemblages did not show a high degree of fragmentation. For the most part, the assemblages had a fairly homogeneous appearance; only the bones from Context 2104 exhibited a wide variation of colour.

As is typical from urban medieval deposits in York, the major domestic species (cattle, caprovid and pig) were prevalent in the assemblage, with geese bones also quite common. Not surprisingly, given the proximity of the site to Hornpot Lane (a known hornworking area (Wenham 1964)), several horncores were recovered from the deposits in Trench 1. Goat horncore fragments were identified from Contexts 2104 and 2107, whilst cattle horncores were recovered from Contexts 2107 and 2110. Most of the fragments had been deliberately chopped from the skull suggesting that they represented hornworking waste. One of the two cattle horncores recovered from Context 2110 had been sawn across mid core, which may have been to facilitate the removal of the horn sheath. Both these horncores represented adult individuals, but showed a marked difference in size, one being small and short, the other large and robust. The variation may perhaps represent sexual dimorphism or could be an indication of the presence of different varieties of cattle.

A few fish bones, some identified as gadid remains, were present in both trenches. One cleithrum fragment (Context 2108) represented an individual which was probably greater than a metre in overall length.

The bulk of the remains from Trench 3 were unidentified to species but represented large and medium-sized mammal rib and vertebra fragments. These, together with the bird and fish remains recovered from both trenches represent waste from food preparation and consumption.

No ageable mandibles were recovered and 15 of the fragments were measurable.

Discussion and statement of potential

From the two samples processed via 1 kg subsamples, it is clear that these deposits contain well-preserved plant (and some insect) remains, particularly wood fragments, with a high potential to shed light on human activity in this (archaeologically and

bioarchaeologically) little-known part of the city.

The samples examined from the boreholes also gave indications of organic preservation in different areas of the site and at greater depths than encountered by the evaluation trenching.

A small, but for the most part, well preserved and tightly dated, vertebrate assemblage was recovered from this site. Several deposits from Trench 1 were described as 'dump' or 'accumulation' deposits within a yard area, however, there were no large concentrations of bone or horncores, as seen at Hornpot Lane (Wenham 1964). Little dog gnawing was observed and fragmentation was low which suggests that the deposits built up quite quickly or were not easily accessible to dogs. A small component of the assemblage may have derived from hornworking but most of the material had the appearance of domestic refuse.

Recommendations

Every effort should be made to preserve remains *in situ* and any further intervention which threatens the deposits should certainly be accompanied by a programme of sampling and post-excavation analysis of plant and invertebrate remains.

The current vertebrate assemblage does not warrant further analysis. However, although the small size of the recovered bone assemblage precludes any further detailed recording and interpretation, these remains do show the potential of the deposits in this area for preserving bone, and this should be borne in mind if further excavation is undertaken.

Retention and disposal

All of the current material should be retained for the present.

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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Table 1. Hand-collected vertebrate remains from Trench 1, from 62-68 Low Petergate, York.

Species		14 th C
<i>Sus f. domestic</i>	pig	4
<i>Bos f. domestic</i>	cattle	9
	sheep/goat	
Caprovid	t	4
<i>Anser sp.</i>	goose	6
<i>Gallus f. domestic</i>	chicken	3
	cod	
Gadidae	family	2
Unidentified fish		4
Unidentified		38
Total		70

Table 2. Hand-collected vertebrate remains from Trench 3, from 62-68 Low Petergate, York.

Species		13-16 th C	18-19 th C	Total
<i>Canis f. domestic</i>	dog	1	-	1
<i>Sus f. domestic</i>	pig	2	-	2
<i>Bos f. domestic</i>	cattle	2	-	2
	sheep/goat			
Caprovid	t	5	1	6
<i>Anser sp.</i>	goose	3	-	3
<i>Gallus f. domestic</i>	chicken	1	-	1
Unidentified fish		2	-	2
Unidentified		62	-	62
Total		78	1	79