

**Evaluation of biological remains from excavations at
63-67 Micklegate, York (site code: YMK01)**

by

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Summary

A series of sediment samples and three boxes of hand-collected bone from deposits revealed by excavations at 63-67 Micklegate, York, were submitted for an evaluation of their bioarchaeological potential.

The deposits produced a few, mostly poorly preserved plant remains, typical of many later medieval and post-medieval urban deposits. They were of little interpretative value. No invertebrate remains were recovered.

Vertebrate remains were mostly from secondary deposits and only a small quantity could be confidently assigned to primary contexts. Most of the bones were well preserved and represented the usual range of domestic species. Much of the assemblage represented domestic refuse, with a smaller component of butchery waste. High status occupation was hinted at by the presence of a small number of cervid remains. Numerous fish bones were recovered from the samples and included a diverse range of both freshwater and marine species.

No further work is recommended on the plant and hand-collected vertebrate remains, but a basic archive of the fish remains should be made if the deposits from which they were recovered can be securely dated. In the event of further excavations, provisions should be made for a systematic sampling strategy and for a comprehensive post-excavation programme.

KEYWORDS: 63-67 MICKLEGATE; YORK; EVALUATION; POST-MEDIEVAL; PLANT REMAINS; VERTEBRATE REMAINS; FISH REMAINS

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Introduction

An archaeological evaluation excavation was carried out by Field Archaeology Specialists at 63-67 Micklegate, York during the first quarter of 2001.

A series of sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), and three boxes of hand-collected bone (each box approximately 25 litres), were recovered from the deposits. Preliminary dating evidence suggests a post-medieval date for the excavated layers.

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 and their lithologies recorded using a standard *pro forma*. Three of the samples were selected for investigation and processed, 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 invertebrate remains, and the residues were examined for other biological and artefactual remains.

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

Vertebrate remains

For each recorded 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.

Results

Sediment samples

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

Context 1051 [Fill of pit – Feature 18]

Sample 105101/BS (11.5 kg bulk-sieved to 300 microns with washover)

Moist, mid brown to mid to dark grey-brown, stiff (working soft and slightly sticky), clay silt, with light grey-brown silty clay in clasts (to 15 mm). Rotted mortar/plaster, bone, fragments of marine molluscs and charcoal were present in the sample.

There was a tiny 'light' washover of a few cm³ of coal and 'char' (amorphous charred organic material, probably from burning of coal), with rather abundant and rather fresh-looking elderberry (*Sambucus nigra* L.) seeds, together with some scraps of very poorly preserved ancient plant material (of a limited range of taxa of no particular interpretative value). There was a 'heavy' washover of about 350 cm³ of cinders (to 30 mm in maximum dimension) and coal (to 25 mm), and a residue of about 2 litres of sand, brick/tile (to 80 mm), and mortar (to 40 mm) with some bone (including bird bone to 60 mm) and shell (oyster to 55 mm).

There was a total of 47.5 g of animal bone, most of which was accounted for by about 200 mammal fragments. Approximately 600 fragments of fish weighed just over 14 g and bird bone contributed the remaining 1.6 g. Preservation was good, with mammal and bird bones tending to be fawn in colour, while fish were more 'gingery'. Small numbers of charred and calcined fragments were present. A wide range of fish was identified, including vertebrae and

other elements representing ?thornback ray (*Raja* cf. *clavata* L.), herring (*Clupea harengus* L.), sprat (*Sprattus sprattus* (L.)), ?trout (*Salmo* cf. *trutta* L.), eel (*Anguilla anguilla* (L.)), ?chub (cf. *Leuciscus cephalus* (L.)), chub/dace (*Leuciscus* sp.), haddock (*Melanogrammus aeglefinus* (L.)), whiting (*Merlangius merlangus* (L.)), ?bull-rout (cf. *Myoxocephalus scorpius* (L.)), flounder/plaice (*Platichthys flesus* (L.)/ *Pleuronectes platessa* L.) and plaice (*Pleuronectes platessa* L.). Bird remains included chicken and two unidentified passerine bones. There were very few identifiable mammal fragments and many were very tiny (<15 mm in size).

Context 1063 [Fill of gully – Feature 19]

Sample 106301/BS (11 kg bulk-sieved to 300 microns with washover)

Moist, mid to dark grey-brown, stiff and slightly sticky (working soft and sticky), clay silt. Rotted mortar, charcoal and bone were present in the sample.

The tiny light washover consisted of a few cm³ of coal, 'char', and elder seeds, with some lumps of somewhat vesicular amorphous charred organic material of unknown origin (to 15 mm), plus a few scraps of seeds and some very decayed fragments of plant and invertebrate material. At least two poorly preserved seeds of fig (*Ficus carica* L.) are thought to have been present. There was also a trace of charred barley grain. The heavy washover comprised about 900 cm³ mainly of cinders (to 30 mm) and coal (to 20 mm), with some bone, and the residue was about 1400 cm³ of sand and brick/tile (to 60 mm), with mortar (to 60 mm), bone, oyster shell, pottery and coal.

Bone (92.3 g) preservation was good, with colour varying from fawn through ginger to brown. This was particularly noticeable in the case of fish. There were 25.3 g of fish bone, of which 10.1 g were identified and consisted of the following taxa —thornback ray, herring, eel, gadid, cod, haddock, ?whiting, halibut (*Hippoglossus hippoglossus* (L.)), right-sided flatfish (pleuronectidae) and plaice. Approximately 1000 fragments of fish remained unidentified. Bird remains included chicken, goose (*Anser* sp.) and fifteen unidentified bones, weighing a total of 6 g. Mammal remains weighed 61 g, of which only a single cow third phalanx was identified to taxon, the rest consisted of large mammal and medium-sized mammal rib, shaft, vertebrae and skull fragments and approximately 100 unidentified bones, of which about 20 were calcined.

Context 1069 [Fill of pit – Feature 21]

Sample 106901/BS (11.5 kg sieved to 300 microns with washover)

Moist, mid to dark grey-brown, stiff and slightly sticky (working soft and sticky), clay silt. Rotted mortar, charcoal, ?pot and bone were present in the sample.

The tiny washover consisted of a few cm³ of cinder and charred amorphous organic material, many 'fibres' from decayed mussel (*Mytilus edulis*) shells, and with a little coal and traces of poorly preserved seeds, and some rather fresh-looking elder seeds. The large residue and heavy washover of 2.5 litres (combined) consisted mainly of brick/tile (to 70 mm) and sand, with some bone (to 50 mm), charcoal (to 30 mm), coal (to 30 mm), cinder (to 20 mm) and pottery (to 40 mm).

A total of 55.1 g of bone was recovered from the sample, of which, unlike the other samples, mammal formed the largest proportion in both weight and fragment count. Preservation was again good, with most fragments generally fawn or brown in colour. A smaller range of fish weighing 4.6 g was present, and included herring, eel, cyprinid (carp family), large and small gadid, haddock, ?five bearded rockling (*Ciliata mustela* (L.)), pleuronectid and flounder, with 100 fragments of unidentified fish bone. There was only 0.3 g of bird bone, which included a single carpometacarpus of thrush (*Turdus philomelos* Brehm) and ?house sparrow (cf. *Passer domesticus* (L.)), along with 10 unidentified fragments. Mammal bones accounted for 50.2 g, and consisted of the remains of caprovid and pig. Large and medium-sized mammal fragments, together with approximately 500 unidentified fragments were also noted.

Hand-collected vertebrate remains

Three boxes of hand-collected bones were recovered from the excavations, of which only half a box was from primary deposits. Material from the latter (Contexts 1035, 1050, 1051, 1063 and 1069) were recorded, whilst all bones from secondary contexts (e.g. definition spits, levelling deposits and garden soils) were quickly scanned.

Preservation of the recorded bones was mainly good, although material from Context 1069 appeared slightly battered and some of the bones were rather fragile. Little dog gnawing was apparent and only one of the assemblages (Context 1069) showed a high degree of fragmentation.

Butchery marks were evident on 10-20% of the bones and included split cattle humeri and femora (Context 1035) and caprovid vertebrae that had been chopped longitudinally (Contexts 1035, 1050 and 1051). Large mammal ribs and vertebrae, recorded in the

'unidentified' fraction had also been heavily chopped.

Amongst the scanned material (Contexts 1015 and 1018) were a number of caprovid crania, which had been sagittally split for access to the brain. Evidence for horncore removal was also apparent. A horse metacarpal from Context 1015 had been transversely chopped, whilst a metatarsal from the same deposit had a series of knife marks along the shaft. The latter may represent skinning marks.

A typical range of common domestic species was represented including cattle, caprovids and pigs. These taxa were represented by a range of elements, both meat-bearing and non-meat-bearing. The 'unidentified' fractions consisted of large (assumed to be cattle) and medium-sized mammal (assumed to be caprovid or pig) rib, vertebra and shaft fragments, some of which had been heavily chopped.

Chicken and goose remains were recorded, along with an unidentified wader and a Turdidae (blackbird family) ulna. Context 1051 produced a number of fish bones, many which were fragments of large elements that had been deliberately chopped. Salmon, cod and ling were represented, the latter identified from a large vertebra from a fish which must have been at least a metre in length.

A rather fragmented dog skeleton was recovered from Context 1069, whilst Context 1050 yielded several cat bones. A few horse bones were also noted. Wild mammals were represented by the shaft of a fallow deer (*Dama dama* (L.)) metatarsal.

The scanned material from all three trenches was well preserved. A similar range of domestic taxa was present. Additional cervid remains (phalanges and metatarsal), representing both fallow and red deer, were identified from Contexts 1015 and 1042. A few hare bones were recovered from Contexts 1018 and 1042 and bird remains also included duck.

Discussion and statement of potential

The few, mostly poorly preserved, plant remains are of no particular value in understanding these deposits. Such material—some rather well-preserved elder seeds with scraps of other seeds—is typical of many later medieval and post-medieval deposits in towns and probably reflects a low input of organic matter when the deposit formed. The well preserved elder seeds may

be younger than the deposits, but not necessarily recent.

A small assemblage of vertebrate remains was recovered from Micklegate. Few fragments were from primary deposits and dating was rather uncertain. However, preservation of all the material recovered was very good and, generally, there appeared to be little fragmentation. Minimal dog gnawing suggests that the remains were quickly incorporated into the deposits. Several cervid fragments, although all representing non-meat bearing elements, hint at the possible presence of high status occupation in the vicinity.

Overall, the assemblages included both household and primary butchery waste, with more of an emphasis on domestic type refuse. The pits obviously provided convenient places for the disposal of waste from a range of activities.

The samples produced a large and diverse assemblage of well preserved fish remains, including both marine and freshwater species, demonstrating the potential of these deposits for the preservation of bone. Recent work on fish assemblages from York (Bond and O'Connor 1999; Jaques 2001) and Hull (Hall 2000; Carrott 2001) has produced some interesting patterns regarding the utilisation of fish species in the medieval and post-medieval periods. These patterns may relate to differences in access and proximity to resources, as well as status. Unfortunately, systematically recovered fish assemblages of medieval and post-medieval date are rare, emphasising the importance of assemblages such as that recovered from Micklegate.

Recommendations

There is little to be gained from further analysis of the material already collected, but if development at this site proceeds to greater depth there is a likelihood of better

preservation of plant remains and this should be borne in mind in any strategy involving destruction of the archaeological record.

No further work is recommended on the current assemblage of hand-collected vertebrate remains. However, if the primary pit fills could be more confidently dated, a basic archive should be made of the fish remains from these deposits as they could provide important data for comparison and synthesis. Clearly, if a larger scale excavation were undertaken a sizeable assemblage of vertebrate remains should be expected, and provisions should be made for a systematic sampling strategy to be employed and for a comprehensive post-excavation programme.

Retention and disposal

All of the current material 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.

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Table 1. 63-67 Micklegate, York: list of examined sediment samples with notes on their treatment.

Context	Sample	Notes
1051	105101	11.5 kg bulk-sieved to 300 microns with washover
1063	106301	11 kg bulk-sieved to 300 microns with washover
1069	106901	11.5 kg sieved to 300 microns with washover