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**Evaluation of biological remains from excavations at 50-52 Monkgate,
York (site code: 1995.4)**

by

John Carrott, Allan Hall, Michael Issitt, Frances Large, Barrie McKenna and Annie Milles

Summary

Four samples, one of Roman date and the rest from 12/13th Century deposits, were submitted for an evaluation of their potential for bioarchaeological analysis. All of the deposits gave at least small numbers of poorly preserved plant and/or insect remains, and one contained eggs of parasitic nematodes (indicating the presence of faecal material).

Further work on this material, particularly that from context 33, may yield data of use in interpreting the site.

Keywords: Monkgate; York; North Yorkshire; Roman; 12/13th Century; plant remains, insect remains; parasite eggs; coin

Authors' address:

Environmental Archaeology Unit
University of York
Heslington
York YO1 5DD

Prepared for:

MAP Archaeological Consultancy Ltd.
39 Greengate
Malton
North Yorkshire YO17 0EL

Telephone: (01904) 433843-51
Fax: (01904) 433850

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Introduction and methods

Four samples (GBAs *sensu* Dobney *et al.* 1992), representing three contexts, from excavations by MAP Archaeological Consultancy Ltd. at 50-52 Monkgate, York, were submitted for an evaluation of their potential for bioarchaeological analysis.

The samples were inspected in the laboratory and a description of their lithology recorded using a standard *pro forma*. Subsamples of 1 kg were taken for extraction of macrofossil remains following procedures of Kenward *et al.* (1980; 1986).

Plant macrofossils were examined from the residues, 'flots' and washovers resulting from processing, while only the flots and washovers were examined for invertebrate remains.

Parasite eggs were investigated by means of 'squashes' following the method of Dainton (1992). Other microfossils were noted where present.

Results

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

Phase I - Roman ditch

Context 38 [Intermediate fill of Roman ditch between two stoney/cobbly fills. *Reason for sampling: to assess nature of the deposit*]

Sample 4: Moist, mid to dark brown, sticky to plastic, slightly sandy silty clay, Small and medium-sized stones (6 to 60 mm), charcoal, bone and shell were present in the sample.

The small washover was mostly charcoal (to 5 mm) and sand with two unidentifiable fragments of

bone, a few seed fragments (including elder, *Sambucus nigra* L.) and a trace of plant detritus.

The microfossil 'squash' was mostly inorganic with some organic detritus.

The small residue was mostly sand, gravel and small stones with some small fragments of charcoal (to 5 mm).

Phase 2 - C12/13th ditch

Context 31 [Medieval pit fill - rich organic material with fish bone and charcoal also present. Some redeposited Roman material also present. *Reason for sampling: Is this cess?*]

Sample 1: Moist mid to dark grey-brown, plastic, slightly silty clay. with small stones (6 to 20 mm), plaster/mortar, brick/tile, charcoal and fragments of bone.

The modest washover was mostly charcoal (to 10 mm) with some sand and plant detritus, a single poorly preserved charred barley grain (*Hordeum* sp.) and a few fragments of *Conium maculatum* L. (hemlock).

The microfossil 'squash' was mostly inorganic with a modest amount of organic detritus and a fragment of ?soil nematode.

The small residue was mostly sand, gravel and small stones with some small fragments of charcoal (to 5 mm).

Sample 2: Moist, mid to dark reddish brown, plastic, sticky, very slightly sandy silty clay. Very small and medium-sized stones (2 to 6 and 20 to 60 mm), brick/tile and pot were present and charcoal and burnt bone were common.

The small flot was mostly charcoal (to 5 mm) and some plant detritus. The latter was mostly hemlock (*C. maculatum*) with a few poorly preserved fragments of elder (*S. nigra*) and poppy (*Papaver* cf. *argemone*), a single fruit of *Stachys* sp. and a *Chara* sp. capsule. A single earthworm egg capsule was also noted.

The microfossil 'squash' was mostly inorganic with some organic detritus and a few fungal hyphae.

The small residue was mostly sand, gravel and small stones with some small fragments of charcoal (to 5 mm) and brick/tile (to 8 mm).

Context 33 [Medieval pit fill - same pit as context 31 but stratigraphically earlier and waterlogged. Reason for sampling: ?cess]

Sample 3: Wet, dark grey, plastic to sticky, silty clay with very small, small and medium-sized stones (2 to 60 mm), brick/tile, pot and ?burnt bone present

The small flot was mostly plant debris and seeds, with a small invertebrate assemblage. The latter was too small to allow a definite interpretation but, subjectively, comprised components typical of the fauna of urban occupation sites (including *Anobium punctatum* (Degeer) - woodworm, *Lathridius minutus* group, *Aphodius* spp., *Gyrophypnus fracticornis* (Müller) and *Cercyon terminatus* (Marshall)). Other invertebrates noted were several fly puparia, mites and two species of lygaeid bug. The plant remains included some species associated with trampled wet ground (including *Eleocharis palustris* (L.) - spike rush, *Juncus bufonius* L. - toad rush, *Luronium natans* (L.) - water plantain and *Sphagnum* sp. leaves). Other plant species present were *Reseda luteola* L. - weld, *Agrostemma githago* L. - corncockle, *Centaurea* sp. - knapweed/cornflower and *Rumex acetosella* L. - sheep's sorrel.

The microfossil 'squash' was approximately equal parts inorganic material and organic detritus. Two poorly preserved *Trichuris* sp. (whip worm) eggs were noted.

The small residue was mostly sand and gravel with charcoal, some small fragments of brick/tile and a subset of the plant and invertebrate species represented in the flot. There were also fragments of wood, hazelnut (*Corylus avellana* L.), hemlock (*C. maculatum*). The residue also contained a fragment of fly puparium, a fish bone, some small concretions (non-faecal) and a coin. This latter was removed to be returned to the excavator.

Discussion

All of the deposits examined yielded at least small numbers of poorly preserved plant and/or insect remains.

Only sample 3 (context 33) gave sufficient fossils for tentative interpretation. The overall character of the plant and insect assemblages suggest disposal of occupation rubbish. The presence of the *Trichuris* sp. eggs indicates a faecal component to the deposit, but the low number observed suggests that context 33 was not primarily a cess deposit.

Statement of potential

Preservation of the biological remains was variable, but the evaluation shows that the deposits have potential as a source of archaeological information. Processing a larger subsample (3-5 kg) from context 33 would yield an interpretable assemblage of insect and plant remains.

Recommendations

If these deposits are threatened by future development, the site should be excavated and thoroughly sampled for assessment and, modest scale, post-excavation analysis.

Retention and disposal

All of the material 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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