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**An evaluation of biological remains from a trial borehole at
Rosemary Place, York (sitecode RP94)**

by

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Summary

Four samples of sediment from a trial borehole at a site in Rosemary Place, York, were submitted for bioarchaeological analysis. Three of the samples were examined for their content of plant and invertebrate remains. None of the samples yielded more than a very small amount of fossil material, most of it of no interpretative value. The inclusions present indicate the deposition of occupation debris into what were probably waterlain deposits. A careful watch should be maintained in the event of further excavation, however, for sediments with good preservation of biological remains in interpretable concentrations.

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Introduction and methods

Four samples of sediment ('GBAs' *sensu* Dobney *et al.* 1992) from a trial borehole (no. 2) at Rosemary Place, York were supplied by MAP Archaeological Consultancy Ltd. for an evaluation of their content of biological remains.

All of the samples submitted were described (using a *pro forma*). A 1 kg subsample was taken from three of the samples to be processed for biological remains following techniques of Kenward *et al.* (1980; 1986). All four of the samples were examined for microfossils, particularly the eggs of parasitic nematodes, using the 'squash' method of Dainton (1992).

Results

The samples are presented in context number order. Archaeological information provided by the excavator is given in square brackets. None of the 'squashes' yielded any evidence of parasitic worm eggs and they are not discussed further.

Context 39 [6.8-7.5 m OD; material may represent an early phase or episode of dumping into the King's fishpool]

Sample 1: Moist, mid grey-brown, stiff (working plastic), sandy clay with 10 mm-scale orange and grey mottling. Fine fragments of brick/tile were abundant in the sample and very small-, small- and medium-sized stones (2-60 mm), fragments of mortar/plaster and charcoal (?soot) were present.

There was only a trace of rootlets in the flot; the small residue consisted mostly of brick/tile fragments to 15 mm, gravel to 25 mm and sand, with traces of coal to 10 mm, cinder to 25 mm and a large mammal molar.

Context 40 [6.8-5.5 m OD; ?sediments from upper part of King's fishpool]

Sample 2: Moist, mid grey-brown, plastic and slightly sticky, sandy silty clay with light to mid orange-brown sandier clay. Very small stones (2-6 mm), tiny fragments of brick/tile and charcoal were present in the sample.

The flot gave only a single cladoceran (water-flea) ephippium (resting body), and traces of rootlets. The very small residue was mostly sand, gravel (to 20 mm) and undisaggregated (slightly concreted) sediment with about 20% by volume of woody and herbaceous root fragments. There were traces of bone (including burnt bone) to 25 mm, and brick/tile (to 5 mm), together with single 'seeds' of elderberry (*Sambucus nigra*), pondweed (*Potamogeton* sp.) and stinging nettle (*Urtica dioica*), plus a single mite. These remains can hardly form the basis for interpretation of the origin of the sediments, though the nettle and elderberry presumably represent either occupation debris or weedy vegetation in the vicinity, whilst the pondweed fruit and cladoceran would be part of the aquatic flora in which these deposits presumably formed.

Context 41 [5.5-4.5 m OD; ?sediment from lower part of King's fishpool]

Sample 3: Moist, mid grey-brown, plastic, sandy silty clay with light to mid orange-brown oxidized patches which appear to be coarser in texture.

The flot gave only a pre-Quaternary megaspore (?from coal), traces of rootlets and some modern grass leaf/stem fragments. The very small residue was mostly undisaggregated (slightly concreted) sediment and sand with some woody and herbaceous root fragments, mineralised root casts, and traces of coal (to 5 mm), charcoal (to 10 mm), bone (including burnt material, to 10 mm) and brick/tile (to 10 mm). There were a few fragments of *Sambucus* seed and a single charred cereal grain (probably barley, *Hordeum* sp.)

Context 42 [4.5-2.5 m OD; Lamination of sediment may represent seasonal flooding]

Sample 4: Moist, slightly grey brown, stiff working plastic, clay with some mm-scale patches of light to

mid red-brown material (?oxidized clay) and pale grey ?root channels.

Statement of potential: implications for further work

The biological remains indicate that ground conditions at the site are poorly suited for preservation of fossils by anoxic 'waterlogging' and that the density of the more robust remains which were observed is very low. The material appears to have very little potential for reconstruction of environment and activity at the site. The lithology and inclusions suggest deposition in an aquatic environment (probably still water or a sluggish stream) with dumping of occupation debris in the upper levels.

Recommendations

No further work is recommended on the material in hand; in the event of further excavation, a programme of bulk-sieving (to 1 mm) should be undertaken to establish the content of thinly distributed coarser material such as bone and artefactual inclusions. Any features with clear or suspected evidence of organic remains of any kind should also be sampled (by means of GBA samples). Site riddling would be appropriate for the routine recovery of bone assemblages from the larger contexts.

Retention and disposal

The samples recovered during this exercise are not thought worthy of retention.

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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