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Evaluation of biological remains from excavations at St Helens Road, Dringhouses, York (sitecode SHR 94)

by

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Summary

Four samples of sediment from ?natural and medieval deposits from trial excavations at St Helens Road, Dringhouses, York, were examined for their content of biological remains. The archaeological deposits were almost devoid of plant and invertebrate remains, though the fill of a possible pit gave a few fruits and seeds which included duckweed (*Lemna*) suggesting the presence of standing water at some point in its infilling.

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Introduction and methods

Four 'general biological analysis' (GBAs *sensu* Dobney *et al.* 1992) samples from excavations at St Helens Road, Dringhouses, York were supplied by Geoquest Associates for evaluation of their content of biological remains.

They were described in the laboratory using a standard pro forma and 1 kg 'test' samples processed following methods outlined by Kenward *et al.* (1980; 1986). Since the organic content appeared to be low throughout, no paraffin flotation was undertaken but material of low density was isolated by means of a washover.

Analysis for eggs of parasitic nematodes was carried out using the 'squash' method of Dainton (1992). Other microfossils (e.g. phytoliths, diatoms, pollen and fungal spores) were also noted if present.

Results

The results of the investigations are given in a sample-by-sample account in the Appendix.

Discussion and statement of potential

The few and generally poorly preserved remains offer small potential for information about site activity and function, although the duckweed seeds in the sample from context 04 (?pit fill) suggest that standing water was present at some stage during its formation.

Recommendations

No further analysis of biological remains is recommended but deposits with organic preservation in any deep features exposed during development should be recorded and sampled if feasible.

Retention and disposal

There is no justification on bioarchaeological grounds to retain the samples and they may be discarded.

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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References

Dainton, M. (1992). A quick, semi-quantitative method for recording nematode gut parasite eggs from archaeological deposits. *Circaea* **9**, 58-63.

Dobney, K., Hall, A. R., Kenward, H. K. and Milles, A. (1992). A working classification of sample types for environmental archaeology. *Circaea, the Journal of the Association for Environmental Archaeology* **9** (for 1991), 24-6.

Kenward, H. K., Engleman, C., Robertson, A., and Large, F. (1986). Rapid scanning of urban archaeological deposits for insect remains. *Circaea* **3** (for 1985), 163-72.

Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1980). A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* **22**, 3-15.

Appendix

The results of the investigations are given here in context number order, with information from the excavator concerning context types in square brackets.

Context 04 [?pit fill]
Sample 2
GBA (1 kg tested)

Mid grey plastic slightly sandy, slightly silty, clay with 1 mm scale brown mottling, stones present in the 2-6 mm range and a little fine herbaceous detritus. Some ?earthworm channels were also present.

There was a rather large washover, mostly consisting of plant detritus (mainly root/rootlet fragments), with a few seeds, some charcoal (<2 mm) and a little sand. The identifiable plant macrofossils were rather sparse and poorly preserved, but included several duckweed (*Lemna* sp(p).) seeds and stinging nettle (*Urtica dioica* L.) achenes, together with traces of elderberry (*Sambucus nigra* L.) seeds and purple deadnettle (*Lamium* Section *Lamiopsis*)) nutlets. This assemblage is of little interpretative value though the presence of duckweed seeds perhaps points to the presence of standing water in this feature for at least a season or two.

Invertebrates were represented by a few fragments of four species only, two of which could be identified, but not with certainty. They were ?*Trophiphorus* sp. (2 individuals) and ?Scolytidae sp. (1 individual). They have no interpretative value.

A few ?modern soil nematodes were observed in the squash, but parasite eggs and other microfossils were not present.

A small sample of wood (the largest fragment about 100 x 10 mm) was found to be root wood and was not identifiable to species.

Context 06 [medieval ditch fill]
Sample 1
GBA (1 kg tested)

Mid grey/brown sticky to plastic clay with some fine herbaceous detritus and 1-2 mm scale orange/brown mottles. Charcoal was present.

The small washover consisted mainly of sand with some <2 mm charcoal, root/rootlet fragments and a small quantity of other, well-rotted plant detritus. A single cladoceran and two poorly preserved tibiae of an unidentifiable weevil were the only invertebrates present.

Live soil nematodes were present in the moderately organic squash.

Context 11 [medieval layer]
Sample 3
GBA (1 kg tested)

Mid grey to mid grey/brown, stiff to slightly brittle, working plastic, slightly silty clay. 1mm scale orange mottles were abundant and there was evidence of slight iron panning. Very fine herbaceous detritus, charcoal, root channels and ?modern roots were present.

The small washover contained mostly of root/rootlet fragments with a little sand and a very small amount of charcoal. Invertebrates were not present.

The squash contained no parasite eggs or other microfossils.

Context 12 [?Pleistocene layer]
Sample 4
GBA (1 kg tested)

Mid grey to mid grey/brown stiff to plastic very slightly sandy, slightly silty clay with occasional plant detritus and 1-10 mm scale orange/brown mottles. Stones in the range 6-20 mm were present. The overall appearance is of finer sediment having been deposited (perhaps by water) into small channels, either those created by roots or from drying out and 'cracking' of the main body of sediment.

A small washover yielded mostly plant detritus (mainly root/rootlet fragments) with some sand and charcoal. Invertebrates were not present.

Parasite eggs and microfossils were not present in the squash.