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**The bioarchaeological value of deposits  
from excavations near Stamford Bridge,  
North Yorkshire**

by

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**Summary**

A series of samples from possible ditch fills and deposits associated with two roads and a possible timber building, all of Roman date, were examined for plant and invertebrate remains. Most were barren apart from some humic material, though in a few cases there were small assemblages of identifiable plant and/or invertebrate remains. Some confirmed the nature of the deposits as waterlain, probably in ditches.

The material so far collected has little further potential, but it would be important to sample any further deposits exposed in the area if they appeared to have an appreciable organic content.

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Eight samples of excavated deposits from a site at North Farm, near Stamford Bridge, were submitted for examination. Each of the sediment samples was described in the laboratory using a standard *pro forma* and a subsample of each disaggregated following methods of Kenward *et al.* (1980). A 'washover' was performed, following paraffin flotation, and the flots and washovers all examined for plant and invertebrate fossils. The residues were oven-dried and checked for other components. As no context numbers were issued with the samples, they are discussed in sample order (with archaeological information in brackets):

**Sample 1** [grey, sandy deposit directly below, and sealed by Road 2]: black (with yellow sand particles), just moist, unconsolidated sandy amorphous organic material, slightly more organic in places.

The flot from the 1.5 kg subsample was tiny and consisted of a few modern root fragments and some ?humic material. The washover was quite large and comprised black, amorphous ?humic material to 5 mm, including a little wood and twig charcoal. The residue was mostly quartz sand. Some of the black amorphous material from this sample, when dried, was heated in a bunsen flame; it lost its black colour without the evolution of smoke and left a reddish-brown residue. It is most likely to have been humic matter adsorbed onto inorganic clasts in the sediment.

**Sample 2** [from below Road 2; deep brown, sandy, peaty deposit, directly below sample 1, and sitting above natural light buff sands]: black, moist, brittle, amorphous organic material with some whitish material within some of the unbroken lumps of sediment.

Flot, washover and residue were all the same as for sample 1; a 1.5 kg was examined.

**Sample 3** [from below Road 1; deep brown, sandy, peaty deposit; probably constitutes the same deposit as sample 2]: black, just moist, crumbly to brittle amorphous organic material with sandy patches.

The flot and washover from the 1 kg subsample were as for samples 1 and 2; the residue contained a few subangular stones to 15 mm.

**Sample 4** [a dark grey-brown sandy deposit, possibly containing charcoal fragments; sealed and cut by the stone footings for a possible timber building; in some places this deposit was quite peaty]: dark grey, moist, brittle to crumbly, humic sand.

The tiny flot from the 2 kg subsample examined contained scraps of black amorphous material, as in samples 1-3, with single charred 'seeds' of fat-hen (*Chenopodium album*) and sedge (*Carex* sp.), which may have been modern. The residue was the same as for samples 1-3.

**Sample 5** [from the lowest deposit within a possible boundary ditch to the north of the settlement (T1)]: dark grey-brown, moist, brittle to crumbly to just plastic, humic sand.

A 1 kg subsample was processed. There were small numbers of rather poorly preserved plant and invertebrate remains. The nature of the deposit as a ditch fill is confirmed by the presence in the tiny flot of many duckweed (*Lemna* sp(p).) seeds and water-flea (*Daphnia*) ephippia, as well as several other taxa indicative of still or slowly flowing water (including two species of water beetles and some caddis larval case fragments), though some of the plants were weedy taxa indicating disturbance associated with human activity. The residue also contained some *Lemna* seeds, along with some quartz sand and black amorphous material to 10 mm, and a modest amount of fine plant detritus. Single raspberry (*Rubus idaeus*) and ?summer savory (cf. *Satureja hortensis*) seeds were also recorded; if the latter is correctly identified it is a herb frequently encountered in Roman deposits in York, though there were no other 'cultivated' plants present in the sample examined.

**Sample 6** [from the lowest deposit within a possible boundary ditch to the north of the settlement (T2)]: mid/dark grey (with pale brown mottling by sand), moist, crumbly to just plastic, humic sand with some clean sand.

The 1 kg subsample gave a tiny flot containing only a few elderberry (*Sambucus nigra*) seed fragments, and traces of toad-rush (*Juncus bufonius*) seeds, a worn ?blackberry (*Rubus* cf. *fruticosus*) seeds and a henbane (*Hyoscyamus niger*) seed. The small residue was of quartz sand with a small amount of black amorphous material to 10 mm, with a trace of elderberry seed fragments and a single unidentified fish rib.

**Sample 7** [from the lowest deposit within a possible property division within the northern area of the settlement (T3)]: mid yellowish-brown, moist, crumbly, fine sand.

The flot from the 1 kg subsample was minute and included some unidentifiable invertebrate remains in the form of traces of pale reddish cuticle; there were, however, several weevil legs. Insect extraction seems to have been unsuccessful in this subsample since the residue contained a small number of beetles, including three kinds of weevils and some aquatic and probable waterside taxa. There were two *Megasternum obscurum*, a eurytopic decomposer often found in litter around the bases of plants. Subjectively, the terrestrial insects may have been associated with farmland. The small residue was of quartz sand with a few scraps of black amorphous material and a single fragment of brick/tile/pot to 25 mm. There were some iron-rich concreted ?root casts, a trace of fine twig charcoal, some foraminifera, and a single stinging nettle (*Urtica dioica*) achene.

**Sample 8** [from the lowest deposit within a possible property division within the southern area of the settlement (T7)]: dark greyish-brown, moist, plastic (especially when worked), humic silty clay.

The very small flot from the 2 kg subsample was quite rich in *Daphnia* ephippia, with frequent toad-rush seeds and a single fat-hen seed. There were at least two kinds of *Daphnia*. There was a single aquatic beetle (*Helophorus*

sp.) and a small but ecologically mixed group of terrestrial forms, conceivably originating in grazing land. The modest residue of quartz sand also included rather a large proportion of very decayed woody detritus, the largest fragment 25 mm, with several fragments of *Prunus* (probably wild plum or bullace) fruitstone to 10 mm. There was a little charcoal and some brown iron-rich, slightly calcareous concretions to 10 mm that may have been iron pan (there was a little poorly preserved pollen in the fragment tested).

### Implications for further work

It is evident that preservation of useful assemblages of plant and invertebrate remains from these deposits is likely to be sporadic and in the event of further disturbance of the archaeology care should be taken to collect samples of 5-10 kg for assessment. The material to hand is unlikely to give significant new information if examined further.

### Reference

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

Please note: Information concerning the archaeological context and dating of the deposits and biota considered in this report have been provided by the excavator; the Environmental Archaeology Unit takes no responsibility for changes in archaeological interpretation or re-phasing which may have occurred since this report was compiled.