

AN evaluation of biological remains from
excavations in Baxtergate, Whitby
(site code WHITBY 92)

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by

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Summary

Five samples of sediment from medieval occupation deposits were submitted for an evaluation of their potential for bioarchaeological analysis. All produced at least small amounts of fossil animal and plant material but only two would be useful for further examination. It appears unlikely that good evidence concerning the usage of the structures with which these deposits were associated will be forthcoming.

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Five samples of sediment from medieval deposits interpreted as possible make-up for or build-up on floors were submitted for analysis of plant and animal fossils. All were described in the laboratory and 1 kg subsamples taken for analysis. They were subjected to disaggregation and sieving to 300 μm , followed by paraffin flotation, using methods described by Kenward *et al.* (1980). Washovers were then taken from the resulting residues and stored in alcohol, and the heavier fraction oven-dried. All fractions of the samples were then examined for animal and plant remains. The results are as follows:

Context 10

Sample 10: mid/dark grey-brown, moist, crumbly and slightly sticky, working plastic, slightly sandy clay silt with moderate amounts of charcoal, traces of pottery and small patches of light grey ?rotten mortar.

The tiny flot contained only traces of invertebrate cuticle.

The small washover was mostly of charcoal to 3 mm, with a little very decayed herbaceous detritus; there were moderately abundant rush (*Juncus*) seeds, a subsample of which was found to contain *JJ. bufonius*, *articulatus*, and *cf. gerardi*, which might represent material from rushes strewn on floors or equally seeds brought into the house on muddy feet. There were in addition a few other identifiable plant remains of no interpretative significance and a trace of mammal bone.

The residue was of sand and charcoal to 15 mm, with some coal to 15 mm and abraded fish bone to 15 mm, with traces of ?brick/tile to 30 mm, a little stone to 30 mm, a fragment of worked jet bead to 6.5 mm and a further fragment of ?jet to 10 mm.

Context 21

Sample 21: mid/dark grey-brown, moist, plastic to sticky to slightly crumbly, slightly sandy clay silt with moderate amounts of charcoal and patches of light grey ?ash or rotted mortar and yellow/orange flecking.

There was very small flot, containing few, poorly preserved insect remains. These *may* have represented the decayed remains of a small group of typical urban taxa but it is not possible to be certain.

The small washover consisted mostly of charcoal to 10 mm, with a little herbaceous detritus and moderately abundant rush (*Juncus*) seeds of the kind noted from sample 10.

The residue was mainly sand with a few stones to 15 mm, modest amounts of charcoal to 20 mm, coal to 20 mm and a little very abraded fish bone (including large gadid, cod family) to 40 mm.

Context 22

Sample 22: mid/dark grey-brown, moist, crumbly to somewhat sticky and soft, slightly humic sandy clay silt with traces of stones 20-60 mm, wood, and bone fragments >20 mm.

The flot was small and contained only very few, poorly preserved, arthropod remains.

The small washover had rather more plant detritus than charcoal, but no fragments were larger than 2 mm; there were a few identifiable macrofossils of taxa of waste ground but preservation was rather poor. There was a modest component of small, irregularly-shaped pale orange-brown fragments with a characteristic almost regular pattern of parallel striations. These could not be identified; they did not appear to be any familiar insect cuticle and seemed to be too delicate and of inappropriate configuration for fish scale. One possibility is that they are from the carapace of some small marine crustacean, but no modern reference material was available for comparison.

The residue consisted mostly of sand with a little stone to 50 mm, some charcoal to 15 mm, partly charred wood to 15 mm, a little mammal bone to 40 mm (a cow first phalanx) and fish bone (including large gadid and herring) to 30 mm, and a single potsherd to 40 mm.

Context 23

Sample 23: light to mid grey- to orange-brown, moist, very sticky and plastic slightly sandy silty clay with traces of very decayed wood and a little ?burnt shell.

The tiny flot consisted mostly of insect cuticle fragments. Various beetles were present, but they were insufficiently abundant to allow ecological interpretation.

The small washover yielded modest amounts of plant detritus (including decayed wood) and a trace of charcoal, both to 3 mm; there were a few identifiable plant remains of low interpretative value and a trace of fish bone.

The residue was of sand and gravel to 15 mm, with rather a lot of fragmentary fish bone (including herring) to 30 mm, a single fragment of glazed pottery to 20 mm and a trace of charcoal to 10 mm. The quantity of fish bone is sufficient to warrant a more detailed examination of this deposit by means of sieving a large volume.

Context 24

Sample 24: mid/dark grey-brown, moist, crumbly to soft to slightly sticky, slightly sandy clay silt with traces of stones 6-60 mm.

The flot was small but included numerous insect fragments which were well preserved but mostly broken into small pieces. Various decomposers typical of occupation sites were noted, together with some species most likely to have come from buildings. There was a single flea, probably *Pulex irritans*, the human flea. A freshly emerged weevil, *Apion* sp. was noted. An interpretable assemblage of insects would probably be recovered from a 3 kg subsample of this deposit.

The washover was rather large (50-60 cm³), consisting mainly of decayed wood and strawy herbaceous detritus to 10 mm and a little charcoal to 5 mm; there were a few identifiable plant remains of weeds of arable and waste ground and rather frequent leaves and shoot tips of the bog moss, *Sphagnum* (a species other than *S. papillosum* or *S. imbricatum*). A few hazel nutshell fragments were also present.

It may be significant that a freshly emerged weevil was recorded in a sample together with 'strawy' detritus; such unexpanded weevils are often recorded from archaeological deposits which on the balance of evidence appear to have included cut hay-like vegetation. It is possible that the *Sphagnum* moss represents a further kind of 'litter'.

The residue of sand and gravel, with stones to 30 mm, included a little mammal (a sheep first phalanx) and fish bone (including ?large gadid) to 30 mm, a very worn (?burnt) shell of a 'winkle' (*Littorina* sp.), charcoal to 10 mm and a trace of wood/bark to 15 mm.

Implications

Although there is preservation of biological remains in all of the layers sampled, there appears to be little value in further analysis, with the following exceptions: (i) context 23 gave sufficient fish bone to suggest that a useful group would be recovered by further sieving, using a 1 mm mesh; (ii) context 24 would probably give an interpretable insect assemblage from a 3 kg subsample.

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 macrofossils from waterlogged archaeological deposits. *Science and Archaeology* 22, 3-15.