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**An evaluation of biological remains from excavations
at 36A-40 High Street, Hull (site code HHS93)**

by

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Summary

Seven samples of sediment and a small assemblage of hand-collected bone from 14th-15th C. deposits at 36A-40 High Street, Hull have been examined. Analysis of four of the sediment samples revealed the presence of fossils probably originating in hay, straw and perhaps also peat, likely to have been litter from the keeping of livestock. There was a range of other occupation debris, both organic and inorganic. The bone was of no value.

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Introduction and methods

Samples of sediment from four contexts, all essentially dumps, of 14th-15th C. date were submitted for an assessment of their bioarchaeological content. A total of seven individual samples representing these contexts were described in the laboratory (using a standard *pro forma*) and four samples taken forward to analysis.

For these, 1 kg 'test' subsamples were processed following methods outlined by Kenward *et al.* (1980; 1986) and 'squashes' for parasite eggs made following methods of Dainton (1992).

Results

The sediment samples

The sediment descriptions and results of analyses undertaken are recorded here in order of context then sample number. Excavator's context information appears in brackets for each context.

Context 10 [Late 14th C.—organic material, part of general dumping]

Sample 101

Moist, dark grey, crumbly to plastic, sandy clay silt with much herbaceous detritus. Very small stones (2-6 mm), mortar/plaster and large mammal bone were present in the sample. No further analysis of this sample was undertaken.

Sample 102

Moist, dark grey, crumbly to plastic, sandy clay silt with much organic material. Very small stones/grit (2-6 mm and smaller), brick/tile, mortar/plaster, coal, charcoal, large mammal bone and fragments of oyster shell were present in the sample. No further analysis of this sample was undertaken.

Sample 103

Moist, dark grey, crumbly to plastic, sandy clay silt with much organic material including some patches of compressed plant detritus. Very small stones (2-6 mm), brick/tile, mortar/plaster, charcoal, coal, large mammal bone and fragments of marine shellfish were present in the sample.

Test: There was quite a large residue for this subsample, much of it consisting of wood fragments up to about 30 mm in largest dimension. Some were clearly chips from woodworking. Small amounts of a range of components were present, including cinder, coal, mortar, brick/tile, charcoal, marine mollusc shell, fish bone and bird eggshell. The assemblage of plant macrofossils was quite small, probably diluted by the large proportion of wood debris, but well preserved. It included grassland and cornfield weed taxa likely to have arrived in hay and straw and there were some short lengths of grass/cereal haulm in the 2-4 mm fraction. The fine fraction included some wheat/rye 'bran' but remains of plant foods were otherwise confined to two charred cereal grains (one poorly preserved wheat grain, and one well preserved barley spikelet and grain).

The moderately large insect assemblage was subjectively rather unusual, but perhaps indicated foul organic matter, conceivably litter from livestock. There were several *Trox scaber*, some of them freshly emerged. This large beetle normally occurs in archaeological insect faunas in small numbers, but its significance when abundant is not yet clear.

Parasites: Four *Trichuris* and two *Ascaris* eggs were recorded from the 'squash'.

Sample 104

Moist, moderately heterogeneous, dark grey, plastic, slightly sandy clay silt with paler grey patches and locally more gritty, slightly sandy clay silt. Coal, charcoal, twigs and large mammal bone were present and marine shellfish were common in the sample. No further analysis of this sample was undertaken.

Context 19 [15th C.—levelling dump on northern property]

Sample 98

Moist, low density, very dark orange-grey-brown, brittle and layered working crumbly, sandy silty clay with patches of paler grey-brown clay silt and brown fibrous material. Very small and small stones (2-20 mm), brick/tile, coal, charcoal, wood and marine molluscs were present in the sample.

Test: The very large residue consisted mostly of wood fragments up to about 40 mm, including some flakes or chips from woodworking. Identifiable plant macrofossils were sparse but well preserved and included seeds of fig (*Ficus carica*), leaves of the bog moss *Sphagnum imbricatum* and a few other taxa of limited interpretative value. Also present were traces of coal, brick/tile, bone (both of bird and fish), marine mollusc shell and charcoal. Particularly characteristic were some small (about 2 mm) coiled structures present in rather large numbers. These appeared to be plant rather than animal hairs or processes but their identity remains obscure.

The insect fauna was of modest size but rather characteristic, with strong indications of foul matter. There were numerous beetle larvae. It appeared possible that the assemblage mostly originated within a humble building—perhaps one used for housing stock.

Parasites: No parasite eggs recorded.

Context 22 [15th C.—levelling dump, part of more general dumping]

Sample 99

Moist, moderately heterogeneous, mid to dark grey-brown, crumbly to soft working plastic and rubbing black, moderately stony sandy clay silt. Very small flints (2-6 mm) were common and small flints (6-20 mm), charcoal, leather and mussel shells were all present in the sample.

Test: The rather large residue contained little wood, though chips were again present. The inorganic fraction here was larger than in samples 98 and 103, amounting to about 60% by volume of the residue and consisting mainly of 'grit', including some chalk. Charcoal, coal and cinders were all rather common and there were traces of leather, bark, twig fragments, marine mollusc shell and brick/tile. Plant macrofossils were well preserved and quite numerous and included taxa indicative of the presence of hay, straw and perhaps also peat (there were, in particular, rather large numbers of leaves and some shoot fragments of *Sphagnum*, including *S. imbricatum*). Fig seed were moderately frequent and there was a single fragment of coriander (*Coriandrum sativum*) 'seed'.

The modest insect assemblage perhaps originated within a building (it was rather reminiscent of that from sample 98).

Parasites: One *Trichuris* egg was recorded from the 'squash'.

Context 39 [14th C.—organic material, part of general dumping]

Sample 100

Moist, considerably heterogeneous, mid grey clay with patches of black charcoal-rich material, brown ?ferric material and orange sandy patches. Brick/tile, pot, cinder, charcoal and leather were present in the sample.

Test: Rather a small residue resulted from this test subsample, and it had a low organic content and quite a high proportion of sand in the finest fraction. There were traces of brick/tile, oyster and barnacle shell, mortar, coal, charcoal and cinder. Identifiable plant remains were generally well preserved though their concentration was low. Again, there were probable indicators of hay and straw and also peat (*Sphagnum imbricatum* and *Sphagnum* sp. shoots and leaves were present and there were some small (2-4 mm) pellets of what appeared to be freshwater reedswamp peat). Indeed, the assemblage differed from the others seen in having a more distinctive component of wetland taxa. Fig was again present and there were some fragments up to about 10 mm consisting of flattened sheets of fibrous tissue with characteristically straight edges which may have been from some kind of leguminous pod.

The flot contained a fairly small group of insects, probably originating in or around a building. Further interpretation would be possible if more material was processed.

Parasites: No eggs recorded.

The sediment samples: discussion

It appears most likely that the organic component of the four dump deposits examined was litter from keeping some kind of livestock. The insects did not include a large and distinctive 'stable manure' component, and it is not impossible that pigs rather than horses were involved; this is, however, rather speculative on the evidence so far obtained. This site provides another example of the association of what appears to be the remains of animal litter with peat or peatland vegetation, reinforcing the growing suspicion that such materials were frequently used with hay and straw as litter.

All the samples contained at least a few (in one case many) *Cercyon littoralis* (Gyllenhal) or *C. depressus* Stephens,

species associated with accumulations of organic matter (typically seaweed) on the marine shoreline. These beetles may indicate inundation from the River Hull (they were recorded from the nearby waterfront site at Chapel Lane Staith, Kenward 1979), but it is also possible that they were exploiting manure. Urine-soaked litter may have much in common with salt-rich strandline detritus from the point of view of an insect, requiring similar adaptations.

Bone

A very small assemblage of hand-collected animal bones, consisting of the contents of a single small box (40 x 16 x 16 cm), was recovered from these excavations. Of a total of five bone-bearing contexts, only three (contexts 22, 19 and 12) were thought to be relatively well dated to the 15th century, the remainder constituting modern backfill.

Preservation, angularity and colour from all these contexts was very variable indicating an assemblage of very mixed nature. Context 19 yielded cattle fragments, all light brown in colour whilst sheep remains from the same context were very black, possibly suggesting a period of initial waterlogging prior to re-deposition.

A total of only 42 bone fragments (weighing 2.180 kg) were recorded from these three contexts, and a range of species were represented. These included cattle (11 fragments), sheep (seven fragments, one from context 22 recorded as neonatal), chicken (three fragments, with both fragments from context 22 being from juveniles) and goose (two fragments). In addition, context 19 produced a complete cat tibia and a fibula, and context 22 a tibiotarsus of a wader, possibly curlew (*Numenius arquata* (Linnaeus)), showing cut marks at the proximal end of the shaft. Only eight measurable fragments, seven mandibles with teeth, and four isolated teeth, were present.

Statement of potential: implications for further work

All four samples of sediment contained at least modest quantities of well preserved plant and invertebrate remains, the fuller analysis of which would be expected to provide useful archaeological information, particularly in terms of the origin of the material which had been dumped or otherwise incorporated into these deposits.

It may be useful, too, to pursue the identification of the 'coiled' structures seen in the subsample from sample 98, and the ?legume pod fragments from 100.

The bone assemblage is of little or no value. The obviously mixed nature of the material means that a larger assemblage would have very little interpretative potential unless material from primary contexts was recovered.

Recommendations

Further work

The plant and animal remains in the sediment samples already excavated should be recorded systematically in order to obtain an understanding of the organic component of the deposits and for their intrinsic bioarchaeological value. If possible, attention should be paid to the identification of the 'hair-like' structures from context 19.

In the event of further threat to these deposits, the excavation strategy should take account of their considerable potential as a source of information from bioarchaeological analysis, though of course the material will be of greater value if dating can be refined.

No further work on the existing bone assemblage is recommended.

Obviously well-dated groups from primary deposits exposed during any further intervention may be of greater value.

Retention and disposal

The sediment samples should be retained in the short term, at least, in the hope that further analysis can be carried out. The bone is not 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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