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**Preliminary comments on plant and insect remains from
an excavation in Shiprow, Aberdeen (site code E47)**

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Summary

Plant and invertebrate remains were examined for four samples from two features: a 12th century pit which was perhaps part of an oven or kiln, and a shallow feature whose fills appeared to be late prehistoric in date. All of the samples gave evidence for burning of plant material, with two also indicating the probable use of peat or mor humus. In the case of the late prehistoric feature, the plant material appeared to have been exclusively heather brushwood. Insect remains were very sparse though one sample gave an assemblage which suggested the presence of foul matter.

Keywords: ABERDEEN; SHIPROW; LATE PREHISTORIC; MEDIEVAL; PLANT REMAINS; INSECT REMAINS; FUEL; HEATHER

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Introduction

Four samples of sediment from the fills of two features at an excavation in Shiprow, Aberdeen, were submitted for an assessment of the content of plant and invertebrate macrofossil remains. Three came from the fills of a large pit of 12th century date, thought to be an oven or kiln, whilst the fourth was from the fill of a small oval cut for which a radiocarbon date in the late prehistoric period had been obtained.

Methods

For each sample, a subsample was disaggregated and sieved using the methods outlined by Kenward *et al.* (1980). The lighter fraction was removed using a 'washover' and this and the denser residue both examined for plant remains and other components. Insect remains were noted in two samples; in one, specimens were picked out by ARH, in the other a special washover of only the very lightest fraction was used to concentrate insect material.

Results

Pit AD (12th century oven or kiln)

Context 15, Sample 15/T (1 kg): black, crumbly sandy ?charcoal and ash

The large residue of about 300 cm³ consisted of sand and fine charcoal-like material, the latter making a washover of about 200 cm³. The charred material resolved, on inspection under the binocular microscope, into what

appeared to be burnt peat or mor humus (it was rather vesicular and had sand grains embedded in it, so there was clearly some mineral soil present), with a little wood charcoal (and part-burnt oak wood/charcoal. The 1-2 mm fraction contained some uncharred ?mor humus (or other peaty sediment). A 'squash' (*sensu* Dainton 1992) of a fragment of the uncharred peaty material proved it to consist largely of amorphous organic material but with considerable amounts of heather pollen, suggesting it was mor humus from heather-dominated heathland or moorland. The small numbers of uncharred plant propagules present included some rush seeds (perhaps brought with peatland material) but also some chickweed (*Stellaria media* (L.) Vill.) seeds which were presumably from weeds growing in the vicinity of the feature. Invertebrates were represented only by a few scraps of unidentifiable cuticle.

Context 25, Sample 25/T (1 kg): mid grey-brown (but speckled orange-brown to black), crumbly/unconsolidated to slightly plastic, slightly silty, slightly clay sand or perhaps largely ash, with some stones 2-20 mm and charcoal.

The very large residue of a little over 400 cm³ was obtained extremely quickly as the sediment disaggregated easily. All but about 125 cm³ consisted of sand, the rest being charcoal with some burnt bone and traces of 'toasted' (part-charred) heather (*Calluna vulgaris* (L.) Hull) leaves and shoot fragments, and uncharred bracken (*Pteridium aquilinum* (L.) Kuhn) frond fragments. Also present were some part-charred culm (stem) fragments from grasses or cereals, probably

the former. Again, this deposit seemed to consist largely of ash, including material which had escaped complete combustion by burning in a fire.

Context 34, Sample 34/T (1 kg): moist, dark brown, crumbly to soft (working plastic), sandy amorphous organic sediment or sandy humic silt with ?charcoal traces; it was difficult to determine what the organic content was (it might be very small if the colour was strongly influenced by the mineral sediment present).

A rather large lump of somewhat coherent humic material remained during the early stages of disaggregation, but it was sandy internally so was perhaps just the normal matrix of the sample. However, some of the buttery, brown, humic lumps of this kind were found to contain some whitish material inside which seemed to be rich in silica spicules, so it was perhaps all plant ash.

A moderate-sized residue of about 375 cm³ of unwashed humic material and sand/grit in roughly equal proportions was eventually obtained. In it were some small (up to 5 mm) fragments of charcoal and others of cinder-like charred material; a few charred cereals in good condition were present (both oats, *Avena* and 'bread/club' wheat, *Triticum aestivo-compactum* being noted. The finest fraction contained quite a lot of very decayed vertebrate hairs. A few small lumps of ?mor humus were found, via a squash, to be rich in heather pollen in matrix of humus, so imported peatland material is again likely here, consistent with the moderate amounts of uncharred heather shoot tips and traces of charred shoot fragments also recorded in the sample.

The very lightest material floating above the

residue was decanted to check for insects. Amongst the debris were some very 'flimsy' uncharred plant fragments, perhaps mostly the 'interiors' of chenopod seeds, with some heather leaves. There were a few insects and quite a few vertebrate hairs. The insect remains were rather decayed (E3.0-4.5, with a distinct mode at 4.0, using the scales of Kenward and Large 1998). All showed a colour change towards orange (strength 3-4, mode 4, using the same scales), some having passed beyond orange to 'pale'. There were a few fly puparia and perhaps 20 beetles, among which only *Neobisnius* sp. was represented by more than one individual. The subjective impression was of a small group from fairly to very foul matter.

Overall, the samples from this feature indicate some of the material which was probably burnt as fuel: heather and heathland/moorland turf and perhaps also some bracken and grass. The reason for constructing the kiln or oven is not, however, clear from the plant remains.

Shallow oval cut AK/AL

Context 96, Sample 96/T (2 kg): completely unconsolidated black crumbly charcoal, with traces of light brown ?burnt soil or ash; very rich in mica.

There was a very large residue after sieving of about 1350 cm³, of which about 800 cm³ was sand and gravel (of rotted granite), some of the gravel clasts apparently burnt (or perhaps just picking up a black coloration from charcoal). The remainder consisted of charred ?heather twig/root including some quite large pieces (to 40 x 10 mm) and charred heather shoot fragments; the finer fractions yielded charred capsules and leaves of heather and there can be little doubt that the bulk of the material burnt was heather brushwood.

Recommendation for further work

It is difficult to justify much more work on the plant remains from these samples, but an interpretable assemblage of insects might well be recovered from a much larger (e.g. 5 kg) subsample of Sample 25. The information gained would probably not be of great archaeological importance, however. It may be worth examining modest-sized subsamples from other sample from the site to check for the presence of different kinds of remains, given the variability in the content of plant material and other components of the samples examined here.

References

- Dainton, M. (1992). A quick, semi-quantitative method for recording nematode gut parasite eggs from archaeological deposits. *Circaea, the Journal of the Association for Environmental Archaeology* **9**, 58-63.
- Kenward, H. and Large, F. (1998). Recording the preservational condition of archaeological insect fossils. *Environmental Archaeology* **2**, 49-60.
- 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.