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**An evaluation of biological remains from excavations at Smaws Quarry
(near Tadcaster), North Yorkshire (site code: SMAWS97)**

by

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Summary

Sediment samples and hand-collected animal bone from excavations at Smaws Quarry were submitted for an evaluation of their bioarchaeological potential.

The biological remains recovered from the sediment samples were small in quantity and of limited interpretative value—only the landsnail assemblages providing a little environmental information.

The animal bone assemblage was too poorly preserved and too small for useful interpretation. Further excavation is unlikely to yield bone of sufficient quality or quantity to justify further analysis.

Keywords: SMAWS QUARRY; NORTH YORKSHIRE; EVALUATION; SEDIMENT SAMPLES; VERTEBRATE REMAINS; MOLLUSC REMAINS; CHARRED PLANT REMAINS

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Introduction

During February 1997 MAP Archaeological Consultancy Ltd. undertook excavations at Smaws Quarry (near Tadcaster), North Yorkshire.

Five sediment samples and a small assemblage of hand-collected animal bone were recovered from deposits representing North-South orientated ditch features.

This report considers the bioarchaeological potential of the material submitted to the EAU for evaluation.

Methods

All five samples ('GBAs' *sensu* Dobney *et al.* 1992) were inspected in the laboratory. Two (from two contexts) were chosen for further investigation on the basis of information supplied by the excavator and the inspection undertaken in the laboratory. A description of their lithology was recorded using a standard *pro forma* and a subsample of 3 kg was taken from one of these samples (Sample 5) for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

One sample (Context 6016, Sample 3) was bulk-sieved to 500 μm .

All the hand-collected bone was examined; subjective records were made of preservation, angularity (i.e. the nature of the broken surfaces) and colour, whilst quantities, and identifications were noted where appropriate. All fragments not identified to species or species group were recorded as 'unidentified'. These included skull, vertebra, rib and shaft fragments and other elements where species identification was unclear.

None of the samples were deemed suitable for examination for the eggs of parasitic nematodes or other microfossils.

Results

The results of the investigations are presented by trench in context number order, with information provided by the excavator in square brackets.

The sediment samples

Context 6016 [Sample from 'rubbly' fill in North-South ditch (Cut 6019)—rubble contributes *c.* 75% of the context]

Sample 3 (8 kg bulk sieved to 500 μm)

Just moist, light to mid red-brown, unconsolidated (working soft and sticky when wet), sandy clay silt. Very small to medium-sized stones (2 to 60 mm), rotted charcoal and modern rootlets were present in the sample.

The flots were mostly rootlets, fine charcoal and landsnails.

The residue was mostly sand and stones with moderate amounts of oak (*Quercus*) charcoal (to 20 mm) and some fragments of unidentified large mammal bone and landsnails.

The small assemblage of landsnails was dominated by forms associated with damp conditions (particularly that provided by leaf litter). Two exceptions to this were the *Vallonia* sp. (either *V. excentrica* Sterki or *V. costata* (Müller), both of which are typically found in dry, exposed environments) and *Cecilioides acicula* (Müller), which is a burrowing snail and probably intrusive to the deposit. At the time of formation of this deposit it would appear that the ditch was essentially dry with some moisture-retaining cover provided by the rubble and plant litter.

Context 6018 [Lowest fill from North-South ditch (Cut 6019)]

Sample 5 (3 kg processed as GBA-washover to 300 μm)

Just moist, light to mid red-brown, unconsolidated to crumbly (working soft and sticky when wet), sandy clay silt. Very small stones (2 to 6 mm) and modern rootlets were present in the sample.

The flot was mostly rootlets and fine charcoal with some landsnails and a single indeterminate charred cereal grain.

The residue was mostly stones and sand with a few fragments of landsnail.

The very small landsnail assemblage was rather mixed in character, though not dissimilar to that recovered from Context 6016.

Vertebrate remains

A very small assemblage of hand-collected bone was recovered from two contexts (6016 and 1002). There was a total of 2 identifiable (223 g) and 26 unidentifiable (116 g) fragments.

Preservation of the material was poor and it was battered in appearance, with very eroded surfaces. Colour was consistently beige. Fresh breakage was evident on 10-20 % of the fragments.

The two identified fragments were a cattle (*Bos* f. domestic) radius and a horse (*Equus* f. domestic) tibia, both of which were measurable. The unidentified material consisted mostly of large mammal vertebra and rib fragments.

Statement of potential

The biological remains recovered from the sediment samples (primarily the landsnail assemblages) are of interpretative value only in so far as is noted in the preceding text. Further work on them would be unlikely to amplify the information obtained.

The vertebrate assemblage is very small and poorly preserved and hence of little interpretative value. The poor preservation makes it unlikely that further excavation would produce sufficient bone, or material of suitable quality, to warrant further work.

Recommendations

No further work is recommended on the sediment samples. If deposits with organic preservation by anoxic waterlogging or higher concentrations of charred plant material or snails are exposed during development, however, every effort should be made to sample and investigate them.

Retention and disposal

There is no justification for retaining the remaining sediment, but the bone assemblage should be kept.

Archive

All material is 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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