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Assessment of biological remains from excavations at Burythorpe Church, North Yorkshire (sitecode: BC95)

by

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Summary

The potential for further analysis of biological remains from five sediment samples and of two boxes of hand-collected animal bone, from deposits of mostly Iron Age or Roman date, excavated at Burythorpe Church, North Yorkshire, is considered.

The ancient plant and invertebrate remains are of no interpretative value except where the identification of wood charcoal may answer specific archaeological questions. The animal bone assemblage is of little interpretative value because of its small size, variable preservation and the limited number of bones giving biometric or age-at-death data.

No further work is recommended on the material recovered from this excavation.

Keywords: BURYTHORPE CHURCH; NORTH YORKSHIRE; IRON AGE; ROMAN; PLANT REMAINS; INSECT REMAINS; ANIMAL BONE; PATHOLOGY; WORKED BONE; BONE ?NEEDLE

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Introduction and methods

Following excavations by MAP Archaeological Consultancy Ltd. at Burythorpe Church, North Yorkshire, four 'general biological analysis' samples and one 'bulk-sieve' sample (GBAs and BS respectively *sensu* Dobney *et al.* 1992) of sediment, together with two boxes (approximately 24 x 25 x 40 cm) of hand-collected animal bone were submitted for an assessment of their potential for bioarchaeological analysis. Most of the material was of Iron Age or Roman date.

The samples were inspected in the laboratory and a description of their lithology recorded using a standard *pro forma*. Subsamples of 1 kg were taken from the GBA samples for extraction of macrofossil remains following procedures of Kenward *et al.* (1980; 1986).

Plant and invertebrate macrofossils were examined from both the washovers and the wet residues resulting from processing. The BS residue was also examined for bone and artefacts.

All of the material from thirty-seven bone-bearing contexts was scanned and twenty-five groups (six Iron Age and nineteen Roman) which contained ten or more fragments were recorded in some detail. Notes were made on the bones from two additional contexts tentatively dated to the medieval period. A total of 883 fragments were recorded, of which 259 were identified to species or genus.

The samples were not deemed suitable for examination for the eggs of parasitic nematodes.

Results

Sediment samples

The results of the examinations are presented in context number order with archaeological information provided by the excavator in brackets.

Context 127 [Fill of large pit/working hollow. *Reason for sampling:* Charcoal observed - any species identifiable? Any burnt seeds present?]
Sample 1 (GBA)

Just moist, mid to dark brown, crumbly and soft, silty sand with some modern rootlets.

The small washover was mostly sand, charcoal (to 5 mm) and plant detritus with many earthworm egg capsules, several unidentified snail fragments, a few unidentified seeds (one of which was charred) and a single fly puparium.

The residue was mostly sand and stones with a little charcoal and a few *Cecilioides acicula* (Müller). The latter is a burrowing species of landsnail and probably intrusive to the deposit.

Context 128 [Fill of possible quarry of Roman date. *Reason for sampling:* Burnt material observed - any charcoal and/or seeds present?]
Sample 3 (GBA)

Just moist, mid to dark grey-brown, crumbly to slightly brittle, slightly clay silty sand with medium-sized stones (20 to 60 mm) common and large stones (60+ mm) and traces of modern rootlets present.

The small washover was mostly charcoal (to 5 mm) and plant detritus with many earthworm egg capsules and *Heterodera* (soil nematode) cysts, a fly puparium, an unidentified seed and two unidentified snail fragments.

The residue was mostly sand and stones with a little slag and charcoal and a few landsnails (again *C. acicula*).

Context 133 [Burnt loamy deposit sealed beneath a 'floor' of slabs, associated with a possible 'oven' - structure 14. The 'oven' has been demolished apart from the western wall. *Reason for sampling*: Any identifiable charcoal or burnt seed present?]
Sample 2 (GBA)

Just moist, dark brown, crumbly and soft, silty sand with some small and medium-sized pieces of rotted sandstone (6 to 60 mm) and modern rootlets present.

The small washover was mostly charcoal (to 5 mm) and sand with a little plant detritus. Many earthworm egg capsules, two snail fragments (?*C. acicula*), a single nettle seed (*Urtica* sp.) and a very poorly preserved elytral fragment of ?*Lathrobium* sp. were also noted.

The residue was sand and stones with a little charcoal and a few *C. acicula*.

Context 134 [Basal fill of a 'T'-junction between two contemporary ditches of Iron Age date. Context contained quantities of Iron Age pot. *Reason for sampling*: Any identifiable seeds present?]
Sample 4 (BS)

The residue was mostly sand with a few fragments of pot and a single unidentified large mammal tooth.

Context 178 [Basal fill of a pit containing Roman pottery. *Reason for sampling*: Are there any carbonised seeds or other organic remains present?]
Sample 5 (GBA)

Just moist, mid to dark slightly reddish brown, crumbly and soft, sandy silt with very small stones (2 to 6 mm), buff fine sand and modern rootlets present.

The small washover was mostly modern rootlets with some charcoal (to 5 mm) and sand. Many *Heterodera* cysts, some plant detritus and two unidentified seeds were also noted.

The residue was sand and stones with a little charcoal and a few *C. acicula*.

Bone

All of the vertebrate remains of Iron Age date were recovered from ditch fills, whereas the Roman material came from a range of context types (mainly pit and gully fills).

Overall, preservation was rather variable, although the Roman material appeared to be in a generally better condition than the remainder. The 'angularity' (i.e. the nature of the broken surfaces) was mostly scored as variable for both periods, and a few contexts contained bones which were battered in appearance. Colour ranged from fawn to dark brown, the later (Roman) material, on the whole, being darker. General preservation and angularity were variable within contexts, whereas colour was not. The variation in preservation and angularity may indicate the presence of residual material. Dog gnawing, butchery and fresh breakage were recorded from most of the assemblage but only at low frequencies (0-10%).

Fragment counts for the Iron Age bones are given in Table 1 and those for the Roman bones in Table 2.

Iron Age

Of a total of 575 fragments, 142 were identifiable. The mammal species represented were cattle, caprine and pig remains in roughly equal numbers (however, much of the unidentified fraction was cow-sized vertebra, rib and shaft fragments). In addition, four horse bones, a single Turdidae (blackbird family) ulna and the tip of a bone needle or point were present.

Only three measurable bones, fourteen mandibles with teeth, and twenty-five isolated teeth, were noted.

Roman

Bones of the common domesticates were again present, the assemblage being dominated by cattle and caprine remains, with pig, horse and dog also identified. One of the eleven horse bones from this period showed clear evidence of butchery.

One sheep metatarsal exhibited a pathological condition which has previously been noted on others of medieval and post-medieval date (Carrott et al. 1993a, 1993b; Dobney et al. 1994, forthcoming; O'Connor 1984). It is manifested as a vertical ridge of remodelled bone on the proximal anterior aspect of the shaft, positioned parallel and medial to the line of the median extensor tendon. To date, this condition is of unknown aetiology.

Medieval

The ?medieval material consisted of too few fragments to give useful information. Of interest, however, was a worked fragment of cast red deer (*Cervus elaphus* L.) antler, identified from Context 183. A large perforation (40 mm) had been cut (medio-laterally) through the base of the main beam, with the first two tines left almost intact. The remainder of the beam had been removed.

Discussion and statement of potential

Few bone assemblages of Iron Age date have been recovered from this region. However, the Iron Age mammal bone assemblage from Burythorpe Church has extremely limited research potential because of its small size, variable preservation and the small number of fragments with potential to provide biometrical or age-at-death data. This is also the case for the recovered Roman material. Consequently, the assemblage is of very limited interpretative value and further work is not recommended.

Most of the invertebrate and plant remains recovered are, or are suspected of being, modern. The few ancient remains present are believed to be of no interpretative value.

These deposits offer no potential for further bioarchaeological analysis other than through examination of the charcoal, which may yield a small amount of information if there are relevant archaeological questions, although the fragments were generally very small and identification would be difficult.

Recommendations

No further work on this material is recommended. If well-dated deposits with organic preservation by anoxic waterlogging, higher concentrations of charred plant material or bone are exposed during any future intervention, however, every effort should be made to sample and investigate them.

Retention and disposal

Any remaining sediment samples and residues from the assessed deposits, and the animal bone assemblage may be discarded.

Archive

All extracted fossils from the test subsamples, and the residues and washovers, 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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Table 1. Recorded hand-collected animal bone from Burythorpe Church: Iron Age.

Taxon		Total fragments	Number measurable	Number mandibles	Number isolated teeth
<i>Bos f. domestic</i>	cattle	46	3	2	10
Caprine	sheep/goat	50	-	7	13
<i>Sus f. domestic</i>	pig	41	-	5	2
<i>Equus f. domestic</i>	horse	4	-	-	-
Turdidae	blackbird family	1	-	-	-
Sub-total		142	3	14	25
Unidentified		433	-	-	-
Sub-total		433	-	-	-
Total		575	3	14	25

Table 2 Recorded hand-collected animal bone from Burythorpe Church: Roman.

Taxon		Total fragments	Number measurable	Number mandibles	Number isolated teeth
<i>Bos f. domestic</i>	cattle	37	5	4	-
Caprine	sheep/goat	48	8	4	6
<i>Sus f. domestic</i>	pig	17	2	3	2
<i>Equus f. domestic</i>	horse	11	4	-	-
<i>Canis f. domestic</i>	dog	3	1	-	-
Indeterminate bird		1	-	-	-
Sub-total		117	20	11	8
Unidentified		191	-	-	-
Sub-total		191	-	-	-
Total		308	20	11	8