

Palaeoecology Research Services

**Evaluation of biological remains from excavations at
Low Farm, Cottingham, East Riding of Yorkshire (site
code: LFC2002)**

by

Allan Hall, Deborah Jaques and John Carrott

PRS 2002/32

*Palaeoecology Research Services
Unit 8, Dabble Duck Industrial Estate
Shildon, County Durham DL4 2RA*

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Summary

Three sediment samples and a single box of hand-collected bone were recovered from excavations at Low Farm, Cottingham, East Riding of Yorkshire, between the 17th and 28th of June and the 22nd July and 2nd August 2002. Provisional stratigraphic and ceramic evidence suggested that the archaeological features were associated with occupation from the Bronze Age through to the post-medieval and modern periods. There were extensive Iron Age ditches and 80% of the pot recovered was of this period. All of the material was submitted to PRS for an evaluation of its bioarchaeological potential.

Two of the three contexts (5002 and 8006) examined via the sediment samples contained biological remains preserved by anoxic waterlogging, but these were not interpretatively very informative.

The vertebrate assemblage from the prehistoric and Romano-British deposits was extremely sparse and of somewhat variable preservation. Few fragments are available for the reconstruction of age-at-death profiles and the size and shape of the animals represented. The 19th century deposit, Context 14002, produced an unusual collection of well preserved chicken bones, however, its late date renders it of limited value.

No further work is recommended on the current material. The presence of remains preserved by anoxic waterlogging and the early date of some of the features does, however, indicate the potential for investigation of other deposits at this site.

KEYWORDS: LOW FARM; COTTINGHAM; EAST RIDING OF YORKSHIRE; EVALUATION; LATER BRONZE AGE TO MODERN; PLANT REMAINS; CHARRED PLANT REMAINS; INVERTEBRATE REMAINS; VERTEBRATE REMAINS

Contact address for authors:

Palaeoecology Research Services
Unit 8
Dabble Duck Industrial Estate
Sildon
County Durham DL4 2RA

Prepared for:

Humber Field Archaeology
The Old School
Northumberland Avenue
Hull HU2 0LN

15 October 2002

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Introduction

An archaeological evaluation excavation was carried out by Humber Field Archaeology at Low Farm, Cottingham, East Riding of Yorkshire (NGR TA 0560 3600), between the 17th and 28th of June and the 22nd July and 2nd August 2002. The site comprised several adjoining fields on low-lying land east of Cottingham (between the villages of Cottingham and Dunsmoor). Approximately 40 trenches were excavated in advance of the proposed construction of a number of glasshouses.

Three sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) and a single box of hand-collected bone, were recovered from the deposits. All of the material was submitted to PRS for an evaluation of its bioarchaeological potential.

Provisional stratigraphic and ceramic evidence suggested that the archaeological features were associated with occupation from the Bronze Age through to the post-medieval and modern periods. There were extensive Iron Age ditches and 80% of the pot recovered was of this period. The phasing for the site was as follows:

- Phase 1 (pre-occupation) – boulder clays, sands, silts, and natural watercourses
- Phase 2 (Later Bronze Age) – peripheral occupation around water courses
- Phase 3 (Iron Age) – enclosures, ditches, and trackways
- Phase 4 (Romano-British) – ditches and pits
- Phase 5 (18th-20th century) – enclosures, landscaping, and drainage

Methods

Sediment samples

The three sediment samples were inspected in the laboratory and their lithologies recorded, using a standard *pro forma*, prior to processing, following the procedures of Kenward *et al.* (1980; 1986), for recovery of plant and invertebrate macrofossils.

The washovers and residues resulting from processing were examined for plant and invertebrate macrofossils. The residues were examined for larger plant macrofossils and other biological and artefactual remains.

Hand-collected vertebrate remains

For the hand-collected vertebrate remains records were made concerning the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones, which could not be identified to species, were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid) and totally unidentifiable.

Results

Sediment samples

The results are presented in context number order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers.

Context 5002 [fill of 'natural' channel containing preserved timber possibly from late medieval or post-medieval drains]

Sample 4/T (1 kg sieved to 300 microns with washover (paraffin flotation was attempted but no remains were separated; approximately 4 litres of sediment remains)

Moist, dark grey-brown to very dark brown, crumbly (working soft), humic silt, with some fragments of bark (including one large fragment to 100 mm).

This subsample yielded a small residue of approximately 150 cm³ consisting of some lumps of irregular-shaped bark (up to about 100 mm in maximum dimension), with a little sand and gravel and a small (<10 mm) shard of glass; the finer fractions contained rounded clasts of humic silt and there was a trace of (<2 mm) charcoal. The moderate-sized washover of about 60 cm³ consisted of bark fragments and a little heavily decayed wood (to 5 mm).

Context 8006 [burnt layer below subsoil, presumably either Iron Age or Romano-British]

Sample 1/T (3 kg sieved to 300 microns with washover; approximately 2 litres of sediment remains)

Just moist, dark grey, crumbly, ashy silty sand (mostly fine sand of less than 300 microns), with some light and mid brown sand, and occasional lumps of dark grey clay. Large stones (60+ mm) and coal (to 15 mm) were present.

There was a huge residue of about 800 cm³ of rather small (<15 mm) granular coal with a little sand and gravel. The very small washover of a few cm³ was of fine coal with a few modern rootlets and traces of unidentified herbaceous detritus and scraps of insect (beetle) cuticle.

Context 10003 [organic band within natural channel fill with Bronze Age pottery]

Sample 3/T (2 kg sieved to 300 microns with washover; approximately 3 litres of sediment remains)

Moist, mid grey to mid to dark grey-brown, crumbly (working soft and more or less plastic), slightly silty clay, with patches (to 40 mm) of mid orange-brown clay.

The tiny residue comprised about 20 cm³ of sand and grit with a little very decayed wood (to 5 mm) and rather rounded and iron-stained (?reworked) charcoal (to 10 mm); there was also a single small mammal incisor, a few uncharred elder (*Sambucus nigra* L.) seed fragments and moderate numbers of oogonia of Characeae (stoneworts)—freshwater green algae forming a calcareous exoskeleton, found in many kind of water bodies, but especially in the earliest stages of succession in newly-created streams or ponds.

Hand-collected vertebrate remains

Vertebrate material, amounting to a single box (approximately 20 litres) and representing fourteen deposits, was recovered from ten of the 40 evaluation trenches (Table 1). Provisional dating of the deposits containing bone suggested that most were of Iron Age or Romano-British date, with a small amount of material from one context, 10003, which was dated to the Bronze Age. Additionally, two deposits were of 19th century date.

Preservation was somewhat variable. Most fragments were reasonably well preserved, but some were rather brittle and easily broken. Several fragments from Contexts 31007 and 39003 had eroded surfaces, whilst material from Contexts 29002 and 31006 was poorly preserved. A high degree of fresh breakage damage was noted, which was probably a consequence of the fragile nature of some of the bones. Evidence of dog gnawing and butchery was minimal.

A fairly limited range of species was present within this small assemblage (Table 2), which included the remains of horse, cattle, caprovid, and pig. Cattle and large mammal fragments predominated, with other species represented by only very few bones. Material dated to the Bronze Age included antler fragments, a shed burr and a main beam, identified as red deer (*Cervus elaphus* L.). A red deer scapula fragment was also recovered from Context 10003, whilst the remaining fragments from this deposit were, for the most part, cattle. The antler may have been collected or traded for manufacture into tools or artefacts, but the presence of the scapula suggests that red deer were being hunted in the vicinity for food.

Context 14002 (19th century deposit) produced over 200 fragments (not included in Table 2), all of which

were identified as chicken. These remains represented at least 10 individuals, which may have been hens rather than cockerels, as no spurs were present on the tarsometatarsi. It must be borne in mind, however, that cockerels of some modern breeds can be spurless. An examination of the skeletal elements suggested that whole birds were present, although less robust bones, such as skull and sternum fragments and the small phalanges were less well represented. The former was probably the result of the fragility of some bird bones, whilst the latter may be a reflection of recovery techniques; small bones can quite often be missed during hand-collection. No knife marks or indications of cause of death were apparent. These birds may have died of some disease or natural causes as they do not seem to represent kitchen or table refuse.

Few mandibles with teeth *in situ* and measurable bones were recovered from the prehistoric and Romano-British deposits.

Discussion and statement of potential

Although samples from two of the three contexts examined here (5002 and 8006) clearly contained biological remains preserved by anoxic waterlogging, they were not interpretatively very informative. They do, however, indicate the potential for investigation of further material at this site. The sample rich in coal seems, on the face of it, rather unlikely to be of Iron Age/Romano-British date, since deposits of this kind are (in AH's experience) generally of late medieval or post-medieval date.

The vertebrate assemblage from the prehistoric and Romano-British deposits was extremely sparse and of somewhat variable preservation. Few fragments are available for the reconstruction of age-at-death profiles and the size and shape of the animals represented. The 19th century deposit, Context 14002, produced an unusual collection of well preserved chicken bones; however, its late date renders it of limited value.

Recommendations

No further examination of the material recovered from the samples is warranted at this stage.

Whilst zooarchaeological data from Iron Age and Romano-British rural settlement are scant, the current assemblage is of little use for providing interpretative information. Further work on this material is not warranted. Additional recording of the later (19th century) material is also not recommended.

Retention and disposal

The current material should be retained for the present against the eventuality of additional remains being recovered from further excavation.

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

Acknowledgements

The authors are grateful to Trevor Brigham and John Tibbles of Humber Field Archaeology for providing the material and the archaeological information.

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Table 1. Number of fragments of hand-collected bone by context from deposits at Low Farm, Cottingham.

Context	Date	No. fragments	Notes
4002	19thC	1	1 unidentified fragment.
10003	BA	17	Red deer antler, large beam and shed burr, probably same antler but damaged by fresh breakage. Red deer scapula; Cow humerus, 3 upper molars, 1 mandible fragment (P3); Pig humerus shaft fragment; Large mammal – 8 fragments.
14002	19thC	approx. 200	Remains of at least 10 chickens, all elements represented. No butchery marks or evidence of cause of death. No spurs noted.
11015	RB	4	4 unidentified fragments.
17001	?IA	3	Cow tibia (measurable), radius, upper molar.
17002	?IA	1	Cow mandible with P3 and P4.
22004	LIA	3	2 large mammal shaft fragments; 1 unidentified fragment.
22009	IA	33	Much fresh breakage damage. Many large mammal tibia and femur fragments, vertebrae and cranial fragment from juvenile individual. Cow includes distal tibia, astragalus and calcaneum from the same individual and must have been deposited into the ground in articulation. Medium-sized mammal shaft fragment.
29002	LIA	17	Horse upper P2, Cow upper molar; Caprovid upper molar and 2 lower molar fragments; 12 unidentified fragments.
31006	LIA	1	Cow tooth fragment.
31007	LIA	10	Caprovid mandible (P2-M3); Horse pelvis fragment (very eroded); 8 medium-sized mammal fragment.
34005	?RB	1	1 large mammal shaft fragment.
39003	RB	2	2 large mammal fragments – poorly preserved.
39010	LIA	2	2 cow tooth enamel fragments.

Table 2. Hand-collected vertebrate remains from prehistoric and Romano-British deposits at Low Farm, Cottingham (excluding Context 14002).

Species		No. of fragments
<i>Equus f. domestic</i>	horse	2
<i>Sus f. domestic</i>	pig	1
<i>Cervus elaphus</i> L.	red deer	3
<i>Bos f. domestic</i>	cow	16
Caprovid	sheep/goat	4
Large -sized mammal		43
Medium-sized mammal		9
Unidentified		17
Total		95