

Palaeoecology Research Services

**Evaluation of biological remains from excavations at
Wilbert Grove, Beverley, East Riding of Yorkshire
(site code: WIB2002)**

by

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Summary

Six sediment samples, a very small quantity of hand-collected shell, and one box of hand-collected bone were recovered from excavations at Wilbert Grove, Beverley, East Riding of Yorkshire, early in 2002. Provisional stratigraphic and ceramic evidence suggested that the deposits were mainly of medieval or post 19th century date. All of the material was submitted for an evaluation of its bioarchaeological potential.

Plant remains (mostly charred) were recovered from all three of the processed subsamples. It may be possible to pursue the charred herbaceous material from Context 123 (and in lesser amounts in the other two subsamples) to an identification with time and appropriately prepared reference material and an attempt should be made to check whether it is really reed. This may be another example of wetland plant material used in roofing. No insect remains were recovered from the samples. The small but very ecologically mixed assemblage of snails from Sample 4 (Context 125) indicated several sources for this pit fill.

The hand-collected shell consisted of only catholic land snail taxa and a few fragments of oyster valve, and was of no real interpretative value.

Provisional dating evidence suggested a tight chronological framework for the deposits, and the preservation of the bones was good, with little suggestion of reworked or redeposited material. However, insufficient fragments were obtained for meaningful interpretation of the features from which they were recovered and few measurable fragments or mandibles with teeth in situ were present.

Any further intervention at this site should take account of these findings by checking for plant remains, especially charred herbaceous material, in other well-dated and -stratified contexts, and the possibility of uncharred plant and invertebrate (including insect) material in suitable deposits should not be overlooked, in view of the normal levels of preservation of such remains in deposits of this date in the centre of Beverley. No further work on the hand-collected shell assemblage is recommended. Further analysis of the hand-collected bones from these excavations is not warranted. However, the good preservation and tight dating framework shows the potential of these deposits for the survival of bone and this should also be borne in mind if further excavations are undertaken in the vicinity.

KEYWORDS: WILBERT GROVE; BEVERLEY; EAST RIDING OF YORKSHIRE; EVALUATION; MEDIEVAL (EARLY 12TH TO EARLY 13TH CENTURY); EARLY MODERN (POST 19TH CENTURY); PLANT REMAINS; CHARRED PLANT REMAINS; INVERTEBRATE REMAINS; SHELLFISH; OYSTER (*OSTREA EDULIS* L.); SNAILS; VERTEBRATE REMAINS

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Introduction

An archaeological evaluation excavation was carried out by Humber Field Archaeology at Wilbert Grove, Beverley, East Riding of Yorkshire (NGR TA 0378 3966), early in 2002.

Six sediment samples ('GBA'/'BS'/'SPOT' *sensu* Dobney *et al.* 1992), representing 5 contexts, a very small quantity of hand-collected shell, and a single box (of approximately 10 litres) of hand-collected bone, were recovered from the deposits. All of the material was submitted to PRS for an evaluation of its bioarchaeological potential.

Stratigraphic and artefactual information has provisionally assigned the deposits to three phase groups:

- Phase 1 – early 12th century
- Phase 2 – late 12th - early 13th century
- Phase 3 – post 19th century

Methods

All of the submitted sediment samples were inspected in the laboratory and 3 were selected for investigation (all as 'GBA'). The lithologies of the selected samples were 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.

Brief notes were made on the preservational condition of the hand-collected shell and the remains identified to species where possible.

For oyster (*Ostrea edulis* L.) shell additional notes were made regarding: numbers of left and right valves; evidence of having been opened using a knife or similar implement; measurability of the valves; damage from other marine biota (polychaet worms and dog whelks); encrustation by barnacles. Preservation was recorded subjectively on two four-point scales for erosion and fragmentation as: 0 – none; 1 – slight; 2 – moderate; 3 – severe.

For the hand-collected vertebrate remains that were recorded, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Brief notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks where applicable.

Where possible, fragments were identified to species or species group using the PRS modern comparative reference collection. Fragments not identifiable 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), unidentified bird, and totally unidentifiable.

Results

Sediment samples

The results are presented in context number order by phase (all of the selected samples were from Phase 2). 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.

No insect remains were recovered from the samples.

Phase 2: late 12th-early 13th century

Context 123 [slot fill]

Sample 2/T (1 kg sieved to 300 microns with washover; 6 litres of sediment remains from this sample together with all of Sample 1 from the same context)

Waterlogged, black, sandy clay silt with abundant charcoal and some wood present.

This subsample yielded a large residue of about 400 cm³ of coarse to fine wood and herbaceous charcoal (the former to 30 mm in maximum dimension) and a little sand and grit and included one large (to 90 mm) bar-like iron object. Amongst the herbaceous material were abundant fragments of cereal straw/reed culm and nodes, all exhibiting strong ribbing on external surfaces, but none apparently saw-sedge (*Cladium mariscus* (L.) Pohl) leaf fragments (in which both sides of the organ are seen and there is a narrow-rectangular cross-section). Much of the finer fractions consisted of the same herbaceous material, as did the washover of about 60 cm³. The only identifiable plant material was a single charred oat (*Avena*) grain.

Context 125 [pit fill]

Sample 4/T (3 kg sieved to 300 microns with washover; 6 litres of sediment remains)

Just moist, light to mid grey-brown, stiff and sticky to crumbly (working plastic), slightly sandy slightly silty clay. Stones (2 to 6 mm), charcoal and land snails were present in the sample.

There was a moderate-sized residue of about 300 cm³ of concreted silty sediment (in clasts to 5 mm), sand and chalk gravel (to 40 mm); the washover comprised a few cm³ of charred plant material (charcoal and herbaceous debris) and some snails. There were traces of the following indicators of fresh water: duckweed

(*Lemna* sp., one uncharred thallus), stonewort (Characeae, one oogonium) and ostracods (small numbers of shells). Also noted were traces of charred oat and bread/club wheat (*Triticum 'aestivo-compactum'*) and seed fragments of elder (*Sambucus nigra* L.).

The small assemblage of snails recovered was of a very mixed character. There were several terrestrial forms (including *Cochlicopa ?lubrica* (Muller), *Vallonia ?excentrica* Sterki, *Carychium* sp(?p).) indicative of both dry exposed habitats and damper more heavily vegetated ones. There were also taxa indicative of both freshwater (a planorbid and *Bithynia ?tentaculata* (Linnaeus)) and waterside vegetation (*Succinea* sp. indet.). Though small, the assemblage would indicate that this fill was derived from several sources.

Twenty-one small and mostly unidentifiable bone fragments were recovered from this sample. Preservation of the remains was quite good. Several fish bones were identified which included herring (*Clupea harengus* L.) and ?Gadidae vertebrae.

Context 140 [slot fill]

Sample 3/T (2 kg sieved to 300 microns with washover; 8 litres of sediment remains from this sample)

Moist, mid to dark grey-brown to black (from charcoal), crumbly to sticky (working soft), slightly sandy (?from rotted mortar) clay silt with patches of light to mid grey sticky clay silt and orange ?clay. Fragments of mortar were present and charcoal was common in the sample.

The moderate-sized to large residue of about 350 cm³ consisted of angular chalk gravel (to 60 mm), sand and charcoal (to 25 mm, including oak, *Quercus*, and an unidentified conifer), with a little charred grass/cereal culm material (similar to that seen in the subsample from Context 123), and a few operculae of *B. tentaculata*; the small washover of about 20 cm³ comprised further charred plant material, mainly fine herbaceous fragments, and a single land snail (*C. ?lubrica*).

This sample produced a small assemblage of rather battered looking vertebrate remains. Several fragments were burnt and as a result were quite fragile. The 20 fragments included medium-sized mammal vertebrae, which were damaged by dog gnawing, and caprovid metapodial fragments. A flatfish (Pleuronectidae) dentary and a herring vertebra were also identified.

Hand-collected shell

Very small quantities of hand-collected shell were recovered from 5 medieval contexts (all from Phase 2, late 12th to early 13th century). Most of the remains were of catholic land snail taxa (*Helix* sp. and/or *Cepaea/Arianta* sp.) of no interpretative value. Three contexts (103, 110, and 125) each gave single fragments of oyster (*Ostrea edulis* L.) valve. Summary information for the hand-collected shell is presented as Table 1.

Hand-collected vertebrate remains

Eleven deposits at this site produced a very small assemblage of vertebrate remains, amounting to 57 fragments (Table 2). Most fragments were recovered from the later phases (2 and 3).

Preservation was described as 'good', with the fragments mostly being brown in colour, and with sharp, distinct edges. The degree of fragmentation was mainly not particularly high. Material from Context 110 showed some fresh breakage damage which must have occurred during excavation. Some butchery was noted throughout and included a horse phalanx (Context 111) with a ?chopped proximal articulation. Recent damage obscured the chop marks and made confident determination of the butchery evidence difficult. A fragment of goose mandible also appeared to have been chopped, but the reason for this was not clear. Dog gnawing was observed on several fragments, but was particularly extensive on material from Context 111.

A very limited range of species was identified, which, not surprisingly, was restricted to the main domesticates, cattle, caprovid, pig and horse. A single goose beak fragment was also present. Most of the remains were assigned to the unidentified category and included large and medium-sized mammal shaft, rib and vertebra fragments. The unidentified component additionally included a few bird (one possibly chicken) shaft fragments.

Only one mandible with teeth *in situ* and three measurable bones, of use for providing age-at-death and biometrical data, were recovered.

Discussion and statement of potential

It may be possible to pursue the charred herbaceous material from Context 123 (and in lesser amounts in the other two subsamples) to an identification with time and appropriately prepared reference material and, given the

rather unusually high concentration of it in the absence of, for example, the circumstantial evidence of remains of either cereal weeds or wetland plants, an attempt should be made to check whether it is really reed (*Phragmites australis* (Trin.) Cav. ex Steudel), especially given the frequency with which charred saw-sedge remains have been found in the south-central parts of Beverley in recent evaluations, i.e. at Beckside North, BEC2001 (Jaques *et al.* 2002); Magistrates' Courts, BMC2000 (Hall *et al.* 2001a); County Hall, CHB2001 (Hall *et al.* 2001b), Keldgate, KGB01 (Jaques *et al.* 2001) and South Beckside, BSB00 (in prep.). This may be another example of wetland plant material used in roofing. No further material need be processed; the residue obtained so far will suffice.

The small but very ecologically mixed assemblage of snails from Sample 4 (Context 125) indicated several sources for this pit fill. The hand-collected shell consisted of only catholic land snail taxa and a few fragments of oyster valve, and was of no real interpretative value.

Provisional dating evidence suggested a tight chronological framework for the deposits, and the preservation of the bones was good, with little suggestion of reworked or redeposited material. However, insufficient fragments were obtained for meaningful interpretation of the features from which they were recovered and few measurable fragments or mandibles with teeth *in situ* were present which could have provided valuable zooarchaeological data.

Recommendations

Any further intervention at this site should take account of these findings by checking for plant remains, especially charred herbaceous material, in other well-dated and -stratified contexts, and the possibility of uncharred plant and invertebrate (including insect) material in suitable deposits should not be overlooked, in

view of the normal levels of preservation of such remains in deposits of this date in the centre of Beverley.

No further work on the hand-collected shell assemblage is recommended.

Further analysis of the hand-collected bones from these excavations is not warranted. However, the good preservation and tight dating framework shows the potential of these deposits for the survival of bone. This should be borne in mind if further excavations are undertaken in the vicinity.

Retention and disposal

All of the current material should be retained for the present.

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.

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Table 1. Summary information for the hand-collected shell from excavations at Wilbert Grove, Beverley, East Riding of Yorkshire, by context. A '?' before numbers indicates possible numbers (e.g. '3(?4) = definitely 3, possibly 4). **Key:** 'CN' = Context number; 'left' = number of left (or lower) valves; 'right' = number of right (or upper) valves; 'ind' = number of valves of indeterminate side; 'meas' = estimated number of valves intact enough to be measured; 'e' = average erosion score for valves; 'f' = average fragmentation score for valves; 'knife' = number of valves showing damage characteristic of the oyster having been opened using a knife or similar implement; 'worm' = number of valves showing damage by polychaet worms; 'barn' = number of valves with barnacles; 'dog' = number of valves showing damage from dog whelk boring; 'fresh' = number of valves showing fresh breakage; 'Hel/Cep' = minimum number of *Helix sp.* and *Cepaea/Arianta sp.*; 'wt' = total weight of shell in grammes (though this may include concreted sediment within shells).

CN	Phase	Oyster valves											Hel/Cep	wt	
		left	right	ind	meas	e	f	knife	worm	barn	dog	fresh			
103	2	-	1	-	0	1	3	0	0	0	0	0	?1	3	26
110	2	-	1	-	1	2	2	1	0	0	0	0	0	0	40
111	2	-	-	-	-	-	-	-	-	-	-	-	-	3	12
122	2	-	-	-	-	-	-	-	-	-	-	-	-	1	8
125	2	-	-	1	0	1	2	1	1	0	0	0	0	1	16

Table 2. Hand-collected vertebrate remains from excavations at Wilbert Grove, Beverley.

Species		Phase 1	Phase 2	Phase 3	Total
<i>Equus f. domestic</i>	horse	-	2	1	3
<i>Sus f. domestic</i>	pig	-	1	2	3
<i>Bos f. domestic</i>	cattle	-	1	1	2
Caprovid	sheep/goat	-	2	-	2
<i>Anser sp.</i>	goose	-	-	1	1
Unidentified		3	21	22	46
Total		3	27	27	57