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**Evaluation of biological remains from Healing,
nr. Grimsby (site code HEA98)**

by

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Summary

Seventeen sediment samples and a single small box of both hand-collected bone and shell, of medieval date (11th-13th century), were submitted for an evaluation of their bioarchaeological potential.

The plant and invertebrate macrofossils recovered from Context 30 were of some limited interpretative value indicating deposition in still, or slow flowing, water. There were only traces of remains to suggest human influence (oyster shell, coal and charcoal).

The extremely small size of the vertebrate assemblage renders it of little interpretative value and suggests that, if further excavation were to take place, any further assemblage produced would not be large enough to warrant work beyond the preparation of a basic archive.

Keywords: HEALING; GRIMSBY; NORTH LINCOLNSHIRE; EVALUATION; MEDIEVAL; PLANT REMAINS; CHARRED PLANT REMAINS; SHELLFISH; SNAILS; INSECT REMAINS; VERTEBRATE REMAINS

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Introduction

Excavations were undertaken at Healing, near Grimsby, North Lincolnshire, during April 1998 by Humber Archaeology Partnership. Deposits were of medieval date (11th to 13th century), with features mainly confined to ditches and gullies.

Seventeen sediment samples ('GBA' *sensu* Dobney *et al.* 1992) and a single box (11 litres) of shell and hand-collected bone from these deposits have been examined to evaluate their bioarchaeological potential.

Methods

Sediment samples

All the sediment samples were inspected in the laboratory and on the basis of this inspection and information supplied by the excavator, four of them were selected for further investigation. A description of the lithology of these samples was recorded using a standard *pro forma* and subsamples of 2 kg taken for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

Plant macrofossils were examined from the residues and washovers resulting from processing, and the washovers were examined for invertebrate remains.

Hand-collected shell

Ten small bags of hand-collected shell (from ten contexts) were submitted. Brief notes were made on the preservational condition of

the shell and the remains identified to species where possible.

Vertebrate remains

The vertebrate remains were examined and a basic archive produced. A record was made of preservation, quantities (numbers and weights) and identifications where appropriate. Measurements were taken, where applicable, according to von den Driesch (1976).

Fragments not identifiable to species were grouped into categories: large mammal (assumed to be cattle, horse or large cervid) and medium-sized mammal 1 (assumed to be caprovid, pig or small cervid).

Results

The results of the investigations are presented in context number order. Archaeological information and/or archaeological questions to be addressed (provided by the excavator) are given in square brackets.

Context 6 [Ditch fill - Is there any evidence for stagnant/running water?]
Sample 11 (2 kg GBA - washover)

Moist, mid brown, sticky to crumbly (working plastic), silty clay, with very small to medium-sized (2 to 60 mm) stones. Modern rootlets were also noted.

The very small washover (1% of the original sample by volume) contained very few remains. Occasional modern rootlets were noted accompanied by modern earthworm egg capsules, unidentified bone fragments (to 3 mm), rare mollusc shell fragments (including 2 *Cecilioides acicula* (Müller)—a

modern, burrowing species almost certainly intrusive to the deposit), a small quantity of amorphous carbonised material, quartz sand, and burnt orange sediment.

The very small residue was mostly sand, gravel and very small to medium-sized stones (2 to 50 mm, including flint). Two further *C. acicula* and another unidentified snail were noted.

The charred material may have derived from hearth waste.

Context 14 [Slot fill - Is there any evidence of usage - structural/drainage?]
Sample 2 (2 kg GBA - washover)

Just moist, mid brown, stiff to brittle (working plastic), silty clay, with modern rootlets, very small and small (2 to 20 mm) stones and very fragmented snail shell.

The very small washover (<1% of the original sample) was similar in composition to that from Context 6, Sample 11, with the addition of some occasional ostracod valves and rare seeds of elder (*Sambucus nigra* L.).

The very small residue was of sand, undisaggregated sediment (to 1 mm) and small stones (2 to 20 mm) with a single unidentified land snail.

The very few biological remains are of little interpretative value. The ostracods indicate aquatic deposition and so suggest that this feature was perhaps more likely associated with drainage than structural.

Context 30 [Primary enclosure ditch fill - Is there any evidence for stagnant/running water or for occupational contamination?]
Sample 6 (2 kg GBA - washover)

Moist, mid grey-brown, stiff to sticky (working soft and slightly plastic), clay silt, with fragments of ?land snails and modern rootlets.

The small washover (2% of the original sample) was dominated by the remains of wetland plant species including water crowfoot (*Ranunculus* Subgenus *Batrachium*) achenes, celery-leaved crowfoot (*R. sceleratus* L.) achenes, pond weed (*Potamogeton*

sp(p).) fruits and duckweed (*Lemna* sp(p).) seeds. Other plant remains included monocotyledon detritus and several weed taxa indicative of open, disturbed ground and waysides. There was a range of poorly preserved invertebrate forms also indicative of aquatic deposition (*Daphnia* and other cladocera species, freshwater snails—planorbids and *Bithynia tentaculata* (L.), and aquatic and waterside insects). The terrestrial insect assemblage was of taxa able to exploit litter or plants by water. There were no synanthropic insects and no suggestion of nearby artificial habitats such as dwellings or dumped waste.

The small residue contained further wetland plant and invertebrate macrofossils including ostracods and duckweed seeds. Fish scales, charcoal (to 10 mm), coarse quartz sand, coal, monocotyledon detritus, and rounded pebbles (to 15 mm) were also present.

This deposit appears to have rather mixed origins but indicates still or slow flowing water with some trace indications of contamination with human occupation waste (coal and charcoal).

Context 55 [?Occupation spread - Is there any evidence for human occupation? Animal enclosure?]
Sample 17 (2 kg GBA - washover)

Just moist, light to mid orange-brown (the orange tinge may be oxidation), brittle and slightly sticky (working plastic), silty clay. Very small and small (2 to 20 mm) stones, modern rootlets and fragments of ?charcoal were present.

The principal components of the very small washover (<1% of the original sample) were modern rootlets, coarse sand, some clasts of burnt orange sediment and small rounded pebbles (to 7 mm). Small fragments of snail shell, rare small bone fragments, earthworm egg capsules and occasional lumps of amorphous charred material were also noted.

The very small residue was of sand, gravel and small stones (2 to 20 mm).

The remains recovered from this sample may have originated from hearth waste; however, the very limited size of the assemblage prevents any definitive interpretation.

Hand-collected shell

The small amounts of marine shell and freshwater and terrestrial snails recovered showed rather different states of preservation. The marine shell was, in general, poorly preserved whereas the freshwater and terrestrial snail shells were fairly well-preserved.

Oyster valve fragments were recovered from seven of the ten represented contexts. A single fragment of cockle (*Cerastoderma ?edule* (L.)) shell was also noted (from Context 1).

A freshwater snail from Context 17 was identified as *Planorbis planorbis* (L.) indicating hard, slow or standing weedy water (typically ditches and ponds).

The terrestrial snails were all *Cepaea/Arianta* sp.

Counts by taxon and context are presented in Table 1.

Vertebrate remains

Overall preservation was fair with angularity (appearance of broken surfaces) described as battered. Colour was variable, ranging from fawn to brown. Fragmentation was not great with more than 50% of fragments being 5 to 20 cm in dimension. Dog gnawing and butchery were evident on less than 10 % of fragments. Fresh breakage was present on 10 to 20% of the assemblage.

Table 2 gives the number of fragments and weights by species, together with the number of unfused fragments and the number of loose teeth of use in age at death analysis. A total of 26 fragments (weighing 377 g) were recovered, of which 14 (275 g) were identifiable to species or species group. The taxa present included cattle (*Bos* f. domestic), sheep/goat (caprovid), pig (*Sus* f. domestic), horse (*Equus* f. domestic), dog (*Canis* f. domestic) and chicken (*Gallus* f. domestic). The assemblage contained two measurable fragments (Table 3), a single mandible and two sub-adult fragments. The extremely small numbers of fragments precluded any further analysis.

Discussion and statement of potential

Sediment samples

The sediment samples are of no interpretative value beyond that discussed in the text above.

Hand-collected shell

The oyster shell, is most likely, human food remains. The hand-collected shell is of no further interpretative value.

Vertebrate remains

The extremely small size of the vertebrate assemblage renders it of little interpretative value and suggests that, if further excavation were to take place, any further assemblage produced would not be large enough to warrant work beyond a basic archive. However, very little is known about this area in the medieval period so a basic archive would be useful for future comparative studies.

Recommendations

A basic archive should be produced of the current vertebrate remains and any material recovered from further excavations.

Retention and disposal

The vertebrate assemblage should be kept for the present.

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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Table 1. Hand-collected shell from Healing, Nr. Grimsby, North Lincolnshire. Counts are minimum numbers of individuals.

Taxa/Context	1	2	3	6	7	13	15	17	49	51	Total
<i>Ostrea edulis</i> L.	3	1	3	1	-	1	-	-	1	2	12
<i>Cerastoderma ?edule</i> (L.)	1	-	-	-	-	-	-	-	-	-	1
<i>Planorbis planorbis</i> (L.)	-	-	-	-	-	-	-	1	-	-	1
<i>Cepaea/Arianta</i> sp.	-	-	1	-	-	-	13	-	-	-	14
Unidentified fragments	-	1	-	-	8	-	-	-	-	-	9
Total	4	2	4	1	8	1	13	1	1	2	37

Table 2. The vertebrate remains from Healing, Nr. Grimsby, North Lincolnshire. Key: * Weight of all unidentifiable fragments

Taxa	No. unfused	No. juvenile	No. mandibles	Total no. fragments	Weight (g)
Dog <i>Canis</i> f. domestic	-	-	-	1	1
Horse <i>Equus</i> f. domestic	-	-	-	1	54
Pig <i>Sus</i> f. domestic	-	-	-	1	3
Cow <i>Bos</i> f. domestic	-	-	-	4	128
Sheep/goat Caprovid	1	-	1	2	38
Sheep <i>Ovis</i> f. domestic	-	-	-	2	51
Chicken <i>Gallus</i> f. domestic	-	1	-	1	<1
Subtotal	1	1	1	12	275
Large mammal	-	-	-	4	
Medium mammal 1	-	-	-	10	*102
Subtotal	-	-	-	14	102
Total	1	1	1	26	377

Table 3. Measurements of vertebrate remains from Healing, Nr. Grimsby, North Lincolnshire.

Context	Date	Taxa	Element	Side	Measurements
17	C12-13th	Sheep	Tibia	1	SD = 10.39 Bd = 24.19 Dd = 18.55
9	C12-13th	Horse	Phalanx 1	I	Bp = 51.00 Dp = 34.96 SD = 34.06

