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**Evaluation of biological remains from excavations at York Railway HQ,
Station Rise, York (site code: YORYM 2000.506)**

by

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Summary

Ten sediment samples, a small quantity of hand-collected shell, and three boxes of hand-collected bone, from deposits revealed by excavations at York Railway HQ, Station Rise, York, were submitted for an evaluation of their bioarchaeological potential.

The few biological remains recovered from the sediment samples were of no interpretative value.

The shell assemblage was rather variably preserved and too small to be of interpretative value beyond indicating that the oysters were consumed by humans.

The moderate bone assemblage was reasonably well preserved, but included fragments that were eroded and battered in appearance. The concentrations of cattle and goat horncores, metapodials, phalanges and associated cranial fragments suggest the presence of waste material from specialised activities; perhaps tanning and hornworking. The overall appearance of the assemblage suggests that there was some degree of reworking of deposits.

No further work is recommended on the current material.

KEYWORDS: YORK RAILWAY HQ; STATION RISE; YORK; EVALUATION; MEDIEVAL; PLANT REMAINS; CHARRED PLANT REMAINS; SHELLFISH; OYSTER; SNAILS; VERTEBRATE REMAINS; ?TANNING; ?HORNWORKING

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Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at York Railway HQ, Station Rise, York (NGR: SE 5991 5175), between 24 April 2000 and 12 May 2000.

Ten sediment samples (nine 'GBA'/'BS' and one 'SPOT' *sensu* Dobney *et al.* 1992) from separate contexts, a small quantity of hand-collected shell, and three boxes (each of approximately 20 litres) of hand-collected bone, were recovered from the deposits. Preliminary evidence suggested that the deposits were of medieval date; it should be noted that the pottery report states that '...there has clearly been considerable mixing of contexts' and that the assemblage '...appears to represent an incomplete chronological sequence of typical domestic refuse, much of it re-deposited', however.

All of the material was submitted to the EAU for evaluation of its bioarchaeological potential.

Methods

Sediment samples

The sediment samples were inspected in the laboratory. Two of the samples were selected for investigation, following the procedures of Kenward *et al.* (1980; 1986), for recovery of plant and invertebrate macrofossils, and their lithologies were recorded using a standard *pro forma* prior to processing. The washovers and residues were examined for plant remains. The washovers were also examined for invertebrate remains, and the residues were examined for other biological and artefactual

remains. The spot sample from Context 1053 (Sample 8) was examined.

Table 1 shows a list of the submitted samples and notes on their treatment.

Hand collected shell

A small quantity of hand-collected shell (representing material from 11 contexts mostly backfills of pits) was submitted. Brief notes were made on the preservational condition of the 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 being opened using a knife or similar implement; fresh breakage (damage during excavation); damage from other marine biota (polychaet worms and dog whelks); encrustation by barnacles.

Vertebrate remains

Three boxes (each of approximately 20 litres) of animal bone were recovered. Most of the contexts containing bone were fills from a number of pits, including barrel pits, and build-up/dump deposits.

With the exception of material from three contexts (1001, 1002 and 1007) of modern date, all the vertebrate remains were scanned and brief notes made concerning preservation, colour, fragmentation, species representation, and number of fragments of use for providing biometrical or age-at-death data.

Results

Sediment samples

The results are presented in context number order. Archaeological information, provided by the excavator, is presented in square brackets.

Context 1053 [Medieval build-up]
Sample 8/SPOT

Moist, mid grey-brown to mid to dark grey (colour variation caused by oxidation/reduction), crumbly (working soft), clay silt. A small fragment of brick/tile (to 10 mm) was present in the sample.

Context 1094 [Medieval backfill in pit/?well 1099]
Sample 10/T (2 kg sieved to 300 microns with washover)

Moist, mid greyish-brown, crumbly (working soft), very slightly clay, sandy silt with stones (2 to 60 mm), rotted charcoal, fragments of bone, and a few land snails (mostly rotted fragments).

The moderately large residue of about 300 cm³ consisted of sand and fine (mostly <5mm) fragments of calcareous lime concretion, perhaps redeposited from mortar. There was also some bone; mostly small unidentified fragments with a trace of both fish and amphibian bones and a single cow phalange. The very small washover comprised a few cm³ of charcoal with some snails (including a planorbid, *Cochlicopa ?lubrica* (Müller), *Cecilioides acicula* (Müller) a burrowing species, probably intrusive to the deposit, and another unidentified land snail); in it were traces of charred oat (*Avena*) grains and a few uncharred elder (*Sambucus nigra* L.) seeds.

These plant and invertebrate remains are of no interpretative significance.

Context 1110 [Medieval dump, ?dark earth deposit]
Sample 12/T (2 kg sieved to 300 microns with washover)

Moist, mid to dark grey-brown, crumbly (working soft), slightly clay sandy silt with some very small stones (2 to 6 mm) present.

The moderately large residue of about 300 cm³ was mostly of sand and gravel, with a little bone. The small washover consisted of a few cm³ of fine charcoal with 'ash beads' likely to represent an ash component within this deposit. Quite a lot of the residue appeared to be sediment which had not

completely disaggregated, perhaps somewhat concreted through redeposition of calcium carbonate from ash or limestone within the matrix. Identifiable plant remains other than charcoal were not observed. No invertebrate remains were recovered.

Hand collected shell

Very small quantities of shell were recovered from eleven contexts, one of which (Context 1002) was modern. Most of the remains were of rather variably preserved oyster valves (although, in almost all cases, the 'side' of the valves was readily determinable). All of the material was assessed and the taxa identified as closely as possible.

Most of the oyster valves could provide some metric data (though measurements were not taken as part of this evaluation). Five valves showed clear evidence of having been opened using a knife or similar implement (a further five showed similar but less conclusive marking). Five valves showed fresh breakage and one (from Context 1110) may have been burnt. None of the valves showed damage from, or encrustation by, other marine biota.

The land snail remains present were all of *Helix ?aspersa* (Müller), and of no interpretative value.

Table 2 presents summary information for the hand-collected shell.

Hand collected bone

Bone was recovered from 57 contexts and totalled 894 fragments, although only thirteen deposits produced more than twenty fragments. Forty-nine of the fragments were measurable and there were three mandibles and eight isolated teeth of use for providing age-at-death data.

Overall, preservation was extremely variable both within and between contexts. Whilst most deposits contained fragments that were reasonably well preserved, many included varying proportions of battered and eroded bones. Colour was also variable, but to a lesser degree, with most fragments being brown. Material from some of the barrel pit fills was a more gingery brown and bones from these deposits also appeared, on the whole, to be better preserved perhaps a result of the damper environment encountered in deposits of this kind. The degree of fragmentation was moderate, more than half of the fragments falling within the 5-20 cm size category. Material from Contexts 1041, 1094 and 1106 was noticeably more fragmented, and also

showed more fresh breakage. Evidence of dog gnawing of the bones was present but minimal.

Domestic species included cattle, caprovid, pig, horse, dog and cat. The assemblage was characterised by the presence of small accumulations of cattle and goat horncores, metapodials and phalanges. Contexts 1041, 1065, 1068 and 1094 were particularly noteworthy for concentrations of these elements. Cattle cranium fragments were also quite numerous and included examples which had evidence for the removal of horncores. Goat horncores from Context 1068 had been deliberately chopped across the base of the core. Additionally, a single goat first phalanx had a series of knife marks across the proximal end of the bone, which may be associated with skinning. Dog and cat remains were mainly confined to pit fill 1005, and included the hind limbs of at least two dogs and one cat. Fragments of dog skull and a large upper canine were recovered from Contexts 1065 and 1068.

A few fragments of fowl and goose were present throughout the assemblage, along with an ulna from Context 1005, tentatively identified as woodcock (cf. *Scolopax rusticola* L.).

Discussion and statement of potential

No further study of the biological remains from these samples is necessary and it seems unlikely, if these are representative of the corpus of samples as a whole, that further examination of the remainder is justified.

The shell assemblage was too small to be of interpretative value beyond indicating that the oysters were consumed by humans.

The moderate bone assemblage was reasonably well preserved, but included fragments that were eroded and battered in appearance. The overall appearance of the assemblage suggests that there was some degree of reworking of deposits; this is supported by the pottery analysis.

The concentrations of cattle and goat horncores, metapodials, phalanges and associated cranial fragments suggest the presence of waste material from specialised activities. Interpretation of this kind of

assemblage is not always straight forward, but such refuse may be associated with tanning and hornworking. Other sites in the city, St. Saviourgate (Carrott *et al.* 1998) and Walmgate (O'Connor 1984), for example, have produced similar assemblages. The remains of dogs and cats in this assemblage may also be associated with hide preparation, but no skinning or knife marks were identified on any of these bones.

Further excavation is likely to produce moderate quantities of bone, but the reworked nature of the current assemblage and its poor dating, renders it of little interpretative value and throws doubt on the potential of other material from this area. However, useful information regarding craft activities would be produced should a tightly dated assemblage be recovered.

Recommendations

No further work is recommended on the current material.

Retention and disposal

The current material may be discarded.

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. List of sediment samples from excavations at York Railway HQ, Station Rise, York, with notes on their treatment.

Context	Sample	Notes
1013	1	Sample examined – no further action
1030	4	Sample examined – no further action
1032	5	Sample examined – no further action
1037	6	Sample examined – no further action
1042	7	Sample examined – no further action
1052	9	Sample examined – no further action
1053	8	Sample examined and described – no further action
1094	10	2 kg sieved to 300 microns, with washover
1109	11	Sample examined – no further action
1110	12	2 kg sieved to 300 microns, with washover

Table 2. Hand-collected shell from excavations at York Railway HQ, Station Rise, York.

Context	Oyster valves		Other marine taxa	Terrestrial taxa	Notes on oyster valves
	Left	Right			
1002	-	1			?‘knife’ marked
1005	3	-			All ‘knife’ marked, some measurements possible
1031	2	1	1 cockle valve		1 left valve ?‘knife’ marked, 2 valves with fresh breaks, some measurements possible on both left valves
1035	-	1			Large fragment
1041	1	2		1 <i>Helix ?aspersa</i>	1/?2 right valve(s) ?‘knife’ marked, some measurements possible, ?fresh break on left valve
1076	1	-			Some measurements possible
1085	1	-			?‘knife’ marked
1094	-	-		1 <i>Helix ?aspersa</i>	
1102	-	1			1 ?fresh break, small bone fragment fused to inner surface
1106	-	1			1 ?fresh break, some measurements possible, 2 other large fragments of valve
1110	-	1			?‘knife’ marked, ?burnt, some measurements possible
TOTAL	8	8			