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**Evaluation of biological remains from excavations at New School,
Priest Lane, Ripon, North Yorkshire (site code: HARGM 10330)**

by

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Summary

A series of sediment samples, four boxes of hand-collected bone and a very small quantity of hand-collected shell, from a number of ditch, pit, and post-hole fills, of medieval and post-medieval date, revealed by excavations at New School, Priest Lane, Ripon, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential.

The few biological remains, other than bone, recovered from the samples were of no interpretative value beyond that given in the text.

The few hand-collected shell remains were of no interpretative value other than that the presence of shellfish indicates importation of these foodstuffs to the site.

Preservation of the vertebrate remains was generally quite good, although some of the post-medieval material was less well preserved. A range of species was identified, with the main domesticates (cattle, caprovids and pigs) forming the bulk of the assemblage. Skeletal element representation for these species suggested that a mixture of butchery and household refuse was present. The post-medieval rubbish pits contained a larger component of domestic refuse, which included the remains of goose, duck, chicken and hare.

No further investigation of the biological remains (other than bone) from the sediment samples, or of the hand-collected shell assemblage, is warranted. However, any remaining sediment should be sieved for the recovery of small bones and this material considered in conjunction with any additional study of the hand-collected vertebrate assemblage—but this would only be of value if a more secure dating framework for the deposits could be achieved.

KEYWORDS: NEW SCHOOL, PRIEST LANE; RIPON; NORTH YORKSHIRE; EVALUATION; MEDIEVAL; POST-MEDIEVAL PLANT REMAINS; INVERTEBRATE REMAINS; SHELLFISH; VERTEBRATE REMAINS

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Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at the site of New School, Priest Lane, Ripon, North Yorkshire.

A series of sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), four boxes (each of approximately 20 litres) of hand-collected bone and a very small quantity of hand-collected shell, were recovered from the deposits. The deposits were mostly of medieval or post-medieval date.

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

Methods

Sediment samples

The sediment samples were inspected in the laboratory. Five of the samples were selected for evaluation and their lithologies 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 were examined for plant remains. The washovers were also examined for invertebrate remains, and the residues were examined for other biological and artefactual remains.

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

Hand-collected shell

Brief notes were made on the preservational condition of the shell and the remains

identified to species where possible.

Hand-collected vertebrate remains

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'). Additionally, for the larger assemblages, notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where possible, fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. Fragments not identifiable to species were described as the 'unidentified' fraction.

Results

Sediment samples

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

Context 1030 [Backfill of rubbish pit containing 18th century pottery]

Sample 2/T (3 kg sieved to 300 microns with washover)

Just moist, dark grey-brown, sandy ?ash. Fine charcoal was common and stones (6 to 60 mm), mortar, pot, an iron object and decayed modern roots were present in the sample.

This subsample yielded an extremely large residue and washover (combined volume about 1700 cm³), the former consisting mainly of sand and gravel (to

35 mm), the latter mainly of cinders (to 35 mm). There was a little mammal bone (12 fragments to 80 mm, mostly unidentified but including a fallow deer *Dama dama* (L.) distal tibia) with fish (percid) scales, a little shell (including three well preserved cockle, *Cerastoderma edule* L., valves) and some coal.

Small numbers of land snails were also present including one *Vertigo pygmaea* (Draparnaud), two adult and one ?juvenile *Pupilla muscorum* (Linnaeus), nine *Vallonia ?excentrica* Sterki, and two *Cecilioides acicula* (Müller). The last of these is a burrowing species (probably intrusive to the deposit), the remainder being indicative of a dry grassland environment.

Context 3017 [Post-medieval backfill of rubbish pit]
Sample 8/BS (11 kg sieved to 300 microns with washover)

Just moist, mid brown, crumbly (working plastic and somewhat sticky when wet), sandy clay silt. Stones (20 to 60 mm), ?fish bone and oyster (*Ostrea edulis* L.) shell were present in the sample.

This subsample yielded a small washover of about 175 cm³ of charcoal (to 15mm), including oak (*Quercus*), with tiny traces of modern roots and bone; the moderate-sized to large residue was about 1800 cm³ and comprised clean quartz sand and gravel (to 50 mm) with traces of marine shell (3 small fragments of oyster shell and 2 of ?periwinkle (*Littorina littorea* (Linnaeus)) and more bone (including burnt fragments).

Most of the 79 vertebrate remains from this sample were small and unidentifiable fragments. Those bones which could be identified included a number of juvenile pig remains and fragments of chicken (*Gallus f. domestic*), geese (*Anser* sp.) and duck (*Anas* sp.). A single small mammal shaft fragment was also noted.

Context 3066 [Post-medieval backfill of rubbish pit]
Sample 18/BS (28 kg sieved to 300 microns with washover)

Just moist, mid to dark brown, crumbly (working plastic and somewhat sticky when wet), silty clay sand. Mammal bone, oyster shell, traces of modern roots and small stones (2 to 6 mm) were present and larger stones (20 to 60 mm) were common in the sample.

There was a very small washover of a few cm³ of modern roots and a little charcoal, coal, cinder and charred hazel (*Corylus avellana* L.) nut (all up to 5

mm in maximum dimension) and tiny (<2 mm) bones. The very large residue of about 7500 cm³ consisted of clean quartz sand and gravel (to 75 mm) with a trace of oyster shell (one left and three right valves, all moderately well-preserved).

One hundred and thirty-five bone fragments were recovered from this sample, most of which were small and unidentified. Identified fragments included the remains of cattle, caprovids and pigs. All the pig bones represented juvenile and sub-adult individuals. Chicken phalanges, sternum and pelvis fragments were identified, along with a single jay (*Garrulus glandarius* (L.)) scapula. This sample also gave seven eel (*Anguilla anguilla* (L.)) vertebrae.

Context 3075 [Post-medieval pit fill]
Sample 19/BS (10 kg sieved to 300 microns with washover)

Just moist, mid to dark grey-brown, crumbly (working just plastic), sandy clay silt. Fragments of large mammal bone and stones (20 to 60 mm) were present in the sample.

The tiny washover comprised a few cm³ of charcoal, modern roots and a single charred barley (*Hordeum* sp.) grain, with some tiny bones. The moderate-sized to large residue of about 1400 cm³ was of clean quartz sand and gravel (to 30 mm) with a modest amount of bone (to 60 mm). A dog coprolite was also recorded from this deposit

Of the thirty bone fragments recovered from the residue, eight were identifiable. Pig was the only species identified and all the remains represented juvenile or sub-adult individuals. The unidentified fraction consisted of large and medium-sized mammal fragments.

Context 3105 [Fill of 12/13th century boundary ditch]
Sample 27/T (3 kg sieved to 300 microns with washover)

Just moist, mid brown, crumbly (working plastic and somewhat sticky when wet), silty sandy clay. Stones (20 to 60 mm), charcoal, snails and woody roots were present in the sample.

The very small washover consisted of a few cm³ of sand, modern roots and some charcoal (to 15 mm); the very large residue of about 800 cm³ comprised clean quartz sand and gravel (to 40 mm). Five fragments of unidentified land snail were also noted (possible all from one individual).

Hand-collected shell

A very small quantity of hand-collected shell, amounting to no more than a few remains from each of nine contexts, was recovered. Most of the remains were of oyster with a few cockle valves (Contexts 1030 and 3000) an edible crab (*Cancer pagurus* L.) claw fragment (Context 1030), a ?dog whelk (*Nucella* sp. from Context 2010), and a single land snail (*Helix aspersa* Müller), from Context 3018).

Preservation of the shell was rather variable but mostly poor and some of the remains showed evidence of fresh breakage or recent fragmentation. None of the oyster valves showed definitive evidence of having been opened by humans.

Table 3 gives a summary of the hand-collected shell by context.

Hand-collected vertebrate remains

Vertebrate material was recovered from all three excavated areas and amounted to four boxes (each box approximately 20 litres), representing 60 contexts. The contents of one box represented the entire assemblage from Context 3018 and was identified as an incomplete cow skeleton. Bone was mainly recovered from post-medieval pit fills, whilst deposits of 11th to 13th century date produced a smaller assemblage. A number of ditch fills also produced a moderate-sized assemblage, but these deposits could not be securely dated to the 12th century. In total, bones (856 fragments) from 42 contexts were recorded, whilst the remaining material (mostly from deposits of modern date) were quickly scanned. Table 2 shows the numbers of fragments recorded and the species present by date group.

Vertebrate material recovered from these deposits was largely well-preserved, with only a few contexts (Contexts 3018, 3047, 3058, 3129 and 3131) containing bones that had rounded edges or were battered in appearance. Context 3131 produced bones with a rather mixed appearance, whilst a part cow skeleton recovered from Context 3018 showed much variability of preservation, with examples of both good and poorly preserved fragments. Extensive fragmentation was also noted on these remains, although most of this damage was recent and had occurred during excavation or subsequent post-excavation processes. Fresh breakage was also apparent on the bones from Contexts 1020, 1040 and 1053, however the bones from these deposits were extremely well-preserved. A single human bone was identified from Context 3001. Variable preservation and the presence of human remains suggests that some of the deposits contain redeposited material.

Evidence of butchery was noted throughout but was minimal in extent, as was dog gnawing.

Typically, the major domestic species (cattle, caprovid and pig) were well represented in the assemblage regardless of period. The range of skeletal elements for these species suggested a mixture of primary butchery and domestic refuse. However, there is a clear increase in the number of meat-bearing elements in the post-medieval period. This, and the presence of the remains of other species such as chicken, geese, duck and hare (*Lepus* sp.), suggests the later material includes a larger component of household/kitchen waste.

Dog remains were recovered from several of the ditch fills of probable 12th century date. A part skeleton was identified from Context 1020, whilst other individuals were represented by teeth and limb bones from Contexts 1040 and 1053. Another dog skeleton was noted in the scanned modern material recovered from Context 1024. Other minor domesticates were represented by a few remains of horse and cat.

Wild mammals were represented by the remains of hare (Context 1030) and roe deer (*Capreolus capreolus* (L.)). The scanned material (of modern date) from Context 1028 also included a roe deer metatarsal.

In total, 66 measurable fragments and seven mandibles with teeth *in situ*, of use for providing biometrical and age-at-death data, were recorded. The 256 bone fragments recovered from the residues of four sediment samples, included a further four measurable bones.

Discussion and statement of potential

The few biological remains, other than bone, recovered from the samples were of no interpretative value beyond that given in the text.

The hand-collected shell remains were of no interpretative value other than that the presence of shellfish indicates importation of these foodstuffs to the site.

Deposits from Priest Lane yielded a moderate-sized assemblage of bone, most of the material being recovered from those of medieval and post-medieval date. Generally,

preservation of the vertebrate remains was good, although some of the post-medieval assemblages contained fragments that were rather eroded and battered in appearance. This, in conjunction with the human remains recovered from Context 3001, suggests the presence of some redeposited material. Although some of the deposits were tightly dated, most were of rather uncertain date and it was from these deposits that the bulk of the assemblage was recovered. Further work on the current assemblage would only be of value if a more secure dating framework could be achieved. However, these remains do show the potential of the deposits in this area for preserving bone and this should be borne in mind if further excavation is undertaken.

Recommendations

No further investigation of the biological remains (other than bone) from the sediment samples, or of the hand-collected shell assemblage, is warranted. However, any remaining sediment should be sieved for the recovery of small bones and this material considered in conjunction with any additional study of the hand-collected vertebrate assemblage.

Although the bone assemblage is fairly small, it is recommended that a basic archive, including biometrical data, should be produced of all well-dated material. This would allow for the data to be used in conjunction with material from other excavations in Ripon, and enlarge the data sets to provide a wider understanding of the activities being undertaken in the city.

Retention and disposal

All of the current material should be retained 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. List of examined sediment samples from excavations at New School, Priest lane, Ripon, with notes on their treatment.

Context	Sample	Notes
1030	2	3 kg sieved to 300 microns with washover
3017	8	11 kg sieved to 300 microns with washover
3066	18	28 kg sieved to 300 microns with washover
3075	19	10 kg sieved to 300 microns with washover
3105	27	3 kg sieved to 300 microns with washover

Table 2. Hand-collected vertebrate remains from deposits from Priest Lane, Ripon Key: ?med = ?medieval; post-med = Post-medieval.

Species		11/12 th C	?12 th C	12/13 th C	?med	post-med	Total
<i>Lepus</i> sp.	hare	-	-	-	-	2	2
<i>Canis</i> f. domestic	dog	-	37	-	3	-	40
<i>Felis</i> f. domestic	cat	2	-	-	-	-	2
<i>Equus</i> f. domestic	horse	1	2	3	-	-	6
<i>Sus</i> f. domestic	pig	4	10	5	5	15	39
<i>Capreolus capreolus</i> (L.)	roe deer	-	1	-	-	-	1
<i>Bos</i> f. domestic	cattle	2	16	5	16	25	64
Caprovid	sheep/goat	6	16	2	7	22	53
<i>Anser</i> sp.	goose	2	1	-	-	6	9
<i>Anas</i> sp.	duck	-	-	-	-	1	1
cf. <i>Vanellus vanellus</i> (L.)	?lapwing	-	-	-	-	1	1
<i>Gallus</i> f. domestic	chicken	-	-	-	3	2	5
<i>Homo sapiens</i>	human	-	-	-	-	1	1
Unidentified bird	bird	-	-	-	1	-	1
Unidentified	unidentified	48	264	50	76	193	631
Total		65	347	65	111	268	856

Table 2. Hand-collected shell remains from deposits from Priest Lane, Ripon.

Context	Oyster valves right	Oyster valves left	Cockle valves	Other marine taxa	Non-marine taxa	Preservation
1000	1	2	-	-	-	fair but no valves measurable and fresh breakage on 2 valves
1030	-	-	3	1 fragment of edible crab claw		cockle valves well- preserved
2010	-	-	-	1 ?dog whelk		poor
2100	1	-	-	-	-	well-preserved and measurable
3000	-	-	1	-	-	well-preserved
3011	1	1				poor (many small flakes)
3018	-	-	-	-	1 <i>Helix aspersa</i>	fair
3044	1	-	-	-	-	fair but not measurable
3066	1	1	-	-	-	poor (very soft) and not measurable