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**Evaluation of biological remains from
excavations at the Former Cathedral School,
Low St Agnesgate, Ripon, North Yorkshire
(site code: HARGM 12000)**

PRS 2003/63

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by

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Summary

Two sediment samples and eight boxes of hand-collected bone recovered from deposits encountered during excavations at the Former Cathedral School, Low St Agnesgate, Ripon, North Yorkshire, were submitted to PRS for an assessment of their bioarchaeological potential. The deposits were of 8/9th century to modern date.

Ancient plant remains were scarce and mostly limited to small quantities of charred material, including charred grain and a small concentration of oat chaff. Charcoal from Context 2004 consisted of fragments of oak and hazel. No invertebrate remains were present.

Vertebrate remains recovered from the excavations were mainly of 8/9th century date and of good preservation. The main domestic mammals were dominant, with pig remains being particularly numerous. The presence of wild mammals (predominantly roe and red deer) within the recovered material hints at high status occupation. Preliminary observations concerning the presence or absence of particular skeletal elements for the major domestic mammals suggested that the remains were domestic refuse and waste from secondary carcass preparation. Further analysis of the current assemblage may provide some useful biometrical and age-at-death data and comparanda for archaeological and zooarchaeological interpretation.

Further excavation in this area, close to Ripon Cathedral and known to have been occupied from an early date certainly demands that attention be paid to sampling of suitable deposits for plant and animal remains. The good conditions present for the preservation of bone also suggests that additional interventions in the vicinity are likely to produce well preserved, moderate-sized assemblages of bone.

KEYWORDS: FORMER CATHEDRAL SCHOOL; LOW ST AGNESGATE; RIPON; NORTH YORKSHIRE; EVALUATION; 8/9TH CENTURY; MEDIEVAL; POST-MEDIEVAL; MODERN; PLANT REMAINS; CHARRED PLANT REMAINS; CHARCOAL; CHARRED GRAIN; VERTEBRATE REMAINS

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Evaluation of biological remains from excavations at the Former Cathedral School, Low St Agnesgate, Ripon (site code: HARGM 12000)

Introduction

An evaluation excavation at the Former Cathedral School, Low St Agnesgate, Ripon, North Yorkshire (NGR SE 3163 7107), was undertaken by York Archaeological Trust during June 2003. Seven trenches were excavated revealing pits and layers that were dated from 8/9th century through to the modern period.

Two 'GBA' samples and a 'SPOT' sample (*sensu* Dobney *et al.* 1992), together with an assemblage of hand-collected bone amounting to eight boxes (each box approximately 20 litres), were submitted for an evaluation of their bioarchaeological potential.

Methods

Sediment samples

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

A small sample of wood fragments was examined as a 'SPOT' sample to identify the wood present.

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. 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), unidentified bird and totally unidentifiable. All are shown as 'Unidentified' in Table 1.

Results

Sediment samples

The results for the samples 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 2004 [backfill in feature 2005; 16/17th century]
Sample 1/SPT

This 'spot' sample consisted of a few cubic centimetres of damp wood charcoal which was rinsed and dried for re-examination. It consisted of 'flaky' and very fragile

oak (*Quercus*), up to 30 mm in maximum dimension, and a single fragment of hazel (*Corylus avellana* L.) roundwood (to 15 mm in diameter by 25 mm).

Context 5008 [basal fill of pit 5009; 12th century]
Sample 3 (2 kg sieved to 300 micron with washover; approximately 7 litres of unprocessed sediment remains)

Just moist, mid-dark grey-brown (mottled with light-mid brown on a mm-scale in places), unconsolidated to crumbly, slightly clay, sandy silt, with small to medium-sized (6 to 60 mm) stones. Traces of rotted charcoal and fragments of bone were present.

There was a very small washover of about 40 cm³ of modern woody roots and wood charcoal, with some dicotyledonous (tree) leaf skeletons which also seem likely to be of recent origin. Traces of charred grains (a few oat, *Avena*, with single specimens of bread/club wheat, *Triticum 'aestivo-compactum'* and barley, *Hordeum*) were present and the finest fraction contained a small concentration of oat chaff, including awn fragments. The only (probably ancient) uncharred plant material was a single eroded fragment of a fruit of hemlock, *Conium maculatum* L.

The large residue (dry weight 824 g) was mostly of sand, with some stones (to 35 mm), a little charcoal (to 10 mm; approximately 1 g) and a single charred oat grain. Several concreted fragments were identified as possibly being faecal in origin. One such fragment was examined for the eggs of parasitic nematodes using the 'squash' method of Dainton (1992). No parasitic nematode eggs or other microfossils were identified, however, fragments of mineralised plant material were observed.

A small assemblage of vertebrate remains, amounting to 45 fragments, was recovered from this sample. The better preserved bones were identified as fish, including eel (*Anguilla anguilla* (L.)) and herring (*Clupea harengus* L.), and small mammal (field vole (*Microtus minutes* (Pallas) or bank vole (*Clethrionomys glareolus* (Schreber))). The fish remains included a number of crushed vertebrae; the damage consistent with their having been consumed and most probably indicating a faecal component to this deposit. Other mammal remains were primarily unidentified and of rather battered appearance; a single fragment was identified as part of a cat pelvis.

Context 6003 [basal fill of pit 6004; 12th century]

Sample 2/T (2 kg sieved to 300 micron with washover; approximately 7 litres of unprocessed sediment remains)

The washover was minute and comprised a trace of charcoal (to 5 mm), one very eroded charred cereal grain and traces of (? modern) dicotyledonous leaf fragments and modern moss.

The large residue was of stones (to 20 mm) and sand, with a little charcoal (to 6 mm; approximately 1 g). Six fragments of bone were present in this sample. All represented mammals but none could be identified. A single fragment was burnt.

Hand-collected vertebrate remains

Sixteen deposits representing 6 of the excavated trenches (Trenches 1, 2, 3, 5, 6 and 7) produced bone. The assemblage amounted to eight boxes of which four represented a single pit fill, Context 1002 (1670 fragments) and two others were from the lower fill of the same pit, Context 1003 (693 fragments). Most of the rest of the assemblage was recovered from Contexts 1001 (131 fragments), 2004 (187 fragments) and 3009 (53 fragments). Table 1 shows the total number of fragments by date and the range of species identified. The pit fills, from which the bulk of the assemblage was derived, have been tentatively dated by artefactual evidence as 8/9th century. Other deposits ranged in date from medieval to post-medieval to modern. Material from contexts described as unstratified were not recorded.

In general, preservation of the bones was good, although the large assemblages from Contexts 1002 and 1003 contained a few very eroded fragments. Vertebrate remains from three of the contexts (2001, 5007 and 6001) were described as of 'fair' preservation and these assemblages also included some fragments that were rounded and battered in appearance. Colour of the bones was brown and was consistent both within and between contexts. Most fragments were between 5 and 20 cm in any dimension, the exception being that between 20-50% of the fragments from Contexts 1002 and 1003 were larger than 20 cm. Material from these same two deposits also showed some fresh breakage damage, but this was more extensive in the assemblage from Context 3009. There was little evidence of dog gnawing and only a few fragments were burnt. Butchery marks, as such, were not frequently encountered but it was apparent that many of the large mammal shaft fragments, particularly from Contexts 1002, 1003 and 2004, had been chopped into chunks or split longitudinally.

As can be seen from Table 1, the assemblage was dominated by the major domestic mammals; cattle,

caprovids and pigs. Contexts 1002 and 1003, the 8/9th century pit fills produced large quantities of pig bones, out-numbering those identified as cattle. However, caprovid remains were the most numerous of the bones identified to species. Also worthy of note were the fragments of roe deer (*Capreolus capreolus* (L.)), most of which were either radius or metatarsal fragments. Moreover, a red deer (*Cervus elaphus* L.) mandible was recovered from Context 1002. Other species, including birds were rather poorly represented (Table 1).

The two pit fills, Contexts 1002 and 1003, were characterised by numerous large mammal rib and, to a lesser extent, shaft fragments. Medium-sized mammal rib and shaft fragments were also relatively common. Whilst some vertebrae were present, their numbers were limited and large mammals were only represented by thoracic vertebra fragments. Although maxilla, mandibles and isolated teeth (both maxillary and mandibular) were present, cranium fragments were, in general, largely absent. This was also the case for small caprovid and pig bones, such as phalanges. The lack of cranium and phalanges suggests that primary butchery waste was limited, but this may be the result of the loss of easily damaged and fragmented bones (e.g. skull fragments) and the bias of hand-collection against small bones, such as medium-sized mammal phalanges, carpals and tarsals.

For the main domestic mammals, isolated teeth were numerous, as were cattle and caprovid tibiae. Cattle remains also included many scapulae and calcanea, whilst mandibles, radii, humeri and pelves were the most commonly occurring elements for caprovids. The remains of pigs were dominated by ulna and maxilla fragments, with only isolated teeth being more numerous.

Material from Contexts 1001 and 2004 (despite its much later date) showed many similarities to the assemblage from the 8/9th century deposits; the most obvious being the numerous large mammal rib and split shaft fragments. Both of these deposits also produced single bones identified as roe deer, with, additionally, a red deer pelvis fragment from Context 1001.

Overall, 169 bones were measurable and 35 mandibles with teeth *in situ* were noted.

Discussion and statement of potential

These samples yielded only very small amounts of ancient plant material and do not in themselves warrant any further analysis.

Vertebrate remains recovered from excavations at Low St Agnesgate were mainly 8/9th century in date and of good preservation. As might be expected, the assemblage was dominated by the major domestic species (cattle, pig and caprovid), however, the relative frequencies produced by this initial assessment suggest that, unusually, pig bones formed a large proportion of the identified remains. This prevalence of pigs appears to be a trait of high status sites of this period. Another intimation of high status activities is the presence of red and roe deer fragments; usually indicative of hunting and/or the giving and receiving of gifts of patronage (Neave 1991).

Overall, the recovered material is likely to represent waste, mainly from secondary caracass preparation and domestic refuse. Only a few horncores (both goat and cow) hinted at waste associated with craft activities.

Despite Ripon's well-documented early monastic origins, archaeological knowledge of the pre-Conquest period is very limited (Hall and Whyman 1996). Few vertebrate assemblages of pre-Conquest date have been recovered and, those which have, e.g. from the nearby site at Ailcy Hill (Carrott *et al.* 1998), are, unfortunately, very small and of little interpretative value. Although not large, this assemblage from Low St Agnesgate is, therefore, of some significance, not only because of its date, but also because of the indications of high status activity. Data from this assemblage could perhaps be used to establish the nature of the settlement in this area of Ripon (so close to the Cathedral), and could be compared with data from vertebrate assemblages recovered from contemporaneous sites in the region, such as Fishergate and Coppergate (O'Connor 1989; 1991) in York, and Flixborough (Dobney *et al.* forthcoming; believed to be a high status estate centre or possible monastery) in North Lincolnshire.

Recommendations

No further work on the recovered plant remains is considered necessary. It would be worth processing any remaining sediment for the recovery of small bones, however.

In this instance, the current vertebrate assemblage offers a rare opportunity for further more detailed analysis. The quantities of fragments from the 8/9th century deposits, in particular, would provide useful biometrical and age-at-death data and comparanda for archaeological and zooarchaeological interpretation.

Further excavation in this area, close to Ripon Cathedral and known to have been occupied from an early date, certainly demands that attention be paid to the sampling of suitable deposits for plant and animal remains. The good conditions present for the preservation of bone also suggested that additional interventions in the vicinity are likely to produce well preserved, moderate-sized assemblages of bone.

Retention and disposal

The material should be retained.

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. Hand-collected vertebrate remains from an excavation at the Former Cathedral School, Low St Agnesgate, Ripon, North Yorkshire. Key: ?med = ?medieval; emed = early medieval (12th C); med = medieval (14th C); post-med = post-medieval (16/17th C).

species		8/9thC	?med	emed	med	post-med	modern	Total
<i>Lepus</i> sp.	hare	1	-	-	-	-	-	1
Canid	dog family	1	-	-	-	-	-	1
<i>Felis</i> f. domestic	cat	1	-	-	-	-	-	1
<i>Equus</i> f. domestic	horse	1	-	-	-	-	-	1
<i>Sus</i> f. domestic	pig	145	5	-	4	8	-	162
<i>Cervus elaphus</i> L.	red deer	1	1	-	-	-	-	2
<i>Capreolus capreolus</i> (L.)	roe deer	12	1	-	-	1	-	14
<i>Bos</i> f. domestic	cattle	143	14	4	13	17	2	193
Caprovid	sheep/goat	182	8	-	6	10	4	210
<i>Anser</i> sp.	goose	7	1	-	4	1	-	13
<i>Gallus</i> f. domestic	chicken	8	-	-	-	-	-	8
Unidentified		1861	101	13	31	184	10	2200
Total		2363	131	17	58	221	16	2806