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**Evaluation of biological remains from excavations at Market Place,  
Ripon, North Yorkshire (site code: HARGM 10427)**

by

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**Summary**

*A single sediment sample and one box of hand-collected bone (of approximately 16 litres) from deposits revealed by excavations at Market Place, Ripon, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential.*

*Very few biological remains other than bone were recovered from the sample.*

*Preservation of the bones was, on the whole, quite good, although some variability was noted within the assemblage from Context 4005. Much of the assemblage was composed of the usual domestic species, cattle, caprovids and pigs. Fish remains were identified from Sample 1 (Context 1004). The small size of the assemblage and the limited number of fragments of use for providing biometrical and age-at-death information restricts further analysis.*

*No further work is recommended on the current material.*

**KEYWORDS:** MARKET PLACE; RIPON; NORTH YORKSHIRE; EVALUATION; MEDIEVAL; CHARRED PLANT REMAINS; SHELLFISH; VERTEBRATE REMAINS

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## Evaluation of biological remains from excavations at Market Place, Ripon, North Yorkshire (site code: HARGM 10427)

### Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at the site of Market Place, Ripon, North Yorkshire.

A single sediment sample ('GBA'/'BS' *sensu* Dobney *et al.* 1992), and one box (of approximately 16 litres) of hand-collected bone, were recovered from the deposits. Preliminary investigations suggested a medieval date for the deposits.

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

### Methods

#### *Sediment sample*

The sediment sample was inspected in the laboratory and its lithology was 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 washover and residue were examined for plant remains. The washover was also examined for invertebrate remains, and the residue was examined for other biological and artefactual remains.

#### *Hand-collected vertebrate remains*

Data for the vertebrate remains were recorded electronically directly into a series of tables using a purpose-built input system and *Paradox* software. For each context (or sample) subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken

surfaces ('angularity'). Additionally, where more than ten fragments were present, semi-quantitative information was recorded concerning fragment size, dog gnawing, burning, butchery and fresh breakage. Where possible, fragments were identified to species or species group, using the reference collection at the EAU. Fragments not identifiable to species were grouped into a single 'unidentified' category.

### Results

#### *Sediment sample*

Archaeological information, provided by the excavator, is presented in square brackets.

**Context 1004** [Dump of material above early market surface. Dated to between 1350 and 1450]

Sample 1/T (17 kg sieved to 300 microns with washover)

Waterlogged, mid greyish brown, slightly clay sand. Stones (20 to 60 mm), charcoal, bone fragments and rather rotted oyster (*Ostrea edulis* L.) shell were present in the sample.

This sample yielded a large residue of about 6.5 litres of angular limestone, gravel, sand and some bone, with a small washover of about 275 cm<sup>3</sup> of coal and cinders (to 15 mm), charcoal (to 10 mm) and sand with some mammal and fish bone. No plant remains other than a little charcoal and a single charred fragment of hazel nutshell (*Corylus avellana* L.) were observed, and invertebrate remains, other than a little mussel (*Mytilus edulis* L.) and oyster shell (both to 5 mm), were lacking.

Eighty-nine fragments of bone were recovered from this sample, over half of which were small (<20 mm) and unidentifiable. A number of the larger bones represented the remains of cattle and caprovids, and a single rat (*Rattus* sp.) upper canine was also identified. Fish bones were present and included gadid (cod family), haddock (*Melanogrammus aeglefinus* L.) and herring (*Clupea harengus* L.) vertebrae.

#### *Hand-collected vertebrate remains*

A single box of vertebrate remains was recovered from three of the four excavated trenches (Trenches 1, 2 and 4), however, only a single fragment of the 239 recovered was retrieved from Trench 2. The bones from two bags, both of which were labelled Context 4001, were combined. Unfortunately, one of the bags was labelled internally as Context 4003. Material from these deposits has been noted, but excluded from Table 1. Pottery spot dates indicate that the material from Contexts 1004 and 4005 dates from the mid 14<sup>th</sup> century to approximately the mid 15<sup>th</sup> century. In total, the hand-collected remains (excluding Contexts 4001 and 4003) amounted to 129 fragments, whilst a further 89 fragments were recovered from Sample 1 (Context 1004).

Much of the material was well-preserved and brown or dark brown in colour. A few fragments from Contexts 1003 and 1004 were rather battered in appearance, and the 'angularity' (nature of the broken surfaces) of the material from Context 4005 was rather varied, with fragments that had both 'spiky' and rounded edges. Fresh breakage damage was minimal and none of the assemblages showed excessive fragmentation. Evidence of butchery took the form of split cattle shaft fragments, chopped vertebrae (longitudinally) and, from Context 1004, two sheep crania which had been chopped in half.

The recorded assemblage included cattle, caprovid and pig remains, with a few horse, cat and chicken fragments. The deposits produced a mixture of rubbish, including both butchery and domestic refuse but no distinct patterns of refuse disposal were discernible. Overall, 13 measurable fragments and 2 mandibles with teeth *in situ*, of use for providing biometrical and age-at-death data, were noted.

## Discussion and statement of potential

The very few biological remains other than bone recovered from the sample were of no interpretative value.

Although vertebrate material from this site is well-preserved and, on the whole, tightly dated, the size of the assemblage is too small and the number of fragments providing biometrical and age-at-death information is insufficient for further analysis to be undertaken.

## Recommendations

No further investigation of the current material is warranted.

It is difficult to judge the likelihood of preservation of plant and invertebrate remains on the basis of this single sample, but if deposits exposed during further excavation in the Market Place are of a similar nature, then the need for more than a modest programme of sampling to test for survival of remains seem unwarranted. However, the good preservation and the presence of fish bone within the assemblage suggests that there is some potential for the recovery of bone and this should be borne in mind in the event of further excavation in this area.

## Retention and disposal

All of the submitted sediment sample was processed as part of this evaluation. The vertebrate assemblage 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.

## Acknowledgements

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*Table 1. Hand-collected vertebrate remains from excavations at Market Place, Ripon (excluding material from contexts 4001 and 4003 (see text). Key: No. frags = total number of fragments; No. meas = number of measurable fragments; No. mand = number of mandibles with teeth in situ.*

<b>Species</b>		<b>No. frags</b>	<b>No. meas</b>	<b>No. mand</b>
<i>Felis</i> f. domestic	cat	2	-	1
<i>Equus</i> f. domestic	horse	1	1	-
<i>Sus</i> f. domestic	pig	3	-	-
<i>Bos</i> f. domestic	cow	15	4	-
Caprovid	sheep/goat	20	8	1
<i>Gallus</i> f. domestic	chicken	1	-	-
<i>Sub-total</i>		42	-	-
Unidentified		87	-	-
<i>Sub-total</i>		87	-	-
<b>Total</b>		<b>129</b>	<b>13</b>	<b>2</b>