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**Evaluation of biological remains from excavations at  
Malmo Road, Hull (1997 evaluation, site code: MAL97)**

by

John Carrott, Cluny Johnstone and Frances Large

**Summary**

*Sediment samples and bone from Romano-British and medieval deposits at Malmo Road, Hull, were submitted for an evaluation of their bioarchaeological potential.*

*The sediment samples were effectively barren of interpretable biological remains.*

*No further work on the hand collected bone is warranted, although it should be borne in mind that, if further excavation is undertaken at the site, a moderately well preserved vertebrate assemblage will be recovered. Such an assemblage would be important in gaining further information about the economic activities of Romano-British and medieval rural settlements in this region of the East Riding of Yorkshire.*

**Keywords:** MALMO ROAD; HULL; MEDIEVAL; ROMANO-BRITISH; EVALUATION; CHARCOAL; INVERTEBRATE REMAINS; ANIMAL BONE

Authors' address:

Palaeoecology Research Services  
Environmental Archaeology Unit  
University of York  
Heslington  
York YO1 5DD

Prepared for:

Humber Archaeology Partnership  
The Old School  
Northumberland Avenue  
Kingston upon Hull  
HU2 0LN

Telephone: (01904) 434485/433843/434487

Answerphone: 433846

Fax: 433850

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## **Evaluation of biological remains from excavations at Malmo Road, Hull (1997 evaluation, site code: 1997.44)**

### **Introduction**

Excavations were carried out by Humber Archaeology Partnership at Malmo Road, Hull, in July 1997. Eight General Biological Analysis samples ('GBAs' *sensu* Dobney *et al.* 1992) and a single box (16.5 litres) of hand-collected animal bone from seven trenches were submitted for evaluation of their bioarchaeological potential, were submitted for an evaluation of their biological potential. All of the material is thought to be Romano-British or medieval in date.

### **Methods**

#### *Sediment samples*

The samples were initially inspected in the laboratory and two were described using a *pro forma*. Subsamples of 2 kg were taken from two of the GBA samples (9 and 10, both from Trench C) for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986). The washovers and residues resulting from processing were examined for their content of plant and invertebrate macrofossils.

#### *Hand collected bone*

For each context, subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Also semi-quantitative records were made of fragment size, and of burning, butchery, fresh breakage and dog gnawing. Fragments were identified to species or species group, where possible, using the

reference collection at the Environmental Archaeology Unit, University of York. Measurements were taken (where appropriate) according to von den Driesch (1976), with additional measurements following those outlined by the sheep-goat working-party (Davis 1992; Dobney *et al.* 1996 and unpublished). Weights of identified and unidentified fragments were also recorded.

### **Results and Discussion**

#### *Sediment samples*

The results are presented in context number order. Context information provided by the excavator is enclosed in brackets.

#### **Trench C**

##### **Context 8**

[Fill of Medieval ditch 14]

Sample 9

2 kg washover

Moist, mid brown to mid grey brown (with some mm-scale orange flecks), crumbly (working slightly plastic), slightly humic clay silt. Flecks of very rotted charcoal and modern roots and rootlets were present in the sample.

The small washover was mostly 'sand' grains with some fine charcoal and rootlets. A few earthworm egg capsules and a single charred seed were also noted.

The small residue was mostly 'pellets' of concreted sediment (to 5 mm) with some very small stones (2 to 6 mm), a few unidentified fragments of bone and two pieces of pot.

**Context 21**

[Fill of Romano-British ditch 12]

Sample 10

2 kg washover

Moist, mid grey with brown patches, crumbly and sticky (working plastic), slightly sandy slightly silty clay. Very rotted charcoal, very small stones (2 to 6 mm) and flecks of ?rotted mortar were also present in the sample.

The moderate-sized washover was mostly rootlets with some charcoal (to 8 mm) and earthworm egg capsules, many *Heterodera* (soil nematode) cysts and a few very poorly preserved seeds and insect remains (of no interpretative value).

The tiny residue was, again, mostly small 'pellets' of concreted sediment (including worm casts to 25 mm) with some very small stones (2 to 6 mm) and sand and a few fragments of unidentified bone.

*Hand-collected bone*

Vertebrate remains from nineteen contexts from Phases 1 (Romano-British) and 2 (Medieval) were examined and recorded. Preservation overall was recorded as 'fair', although bones from four contexts were less well preserved. Colour was mostly brown or dark brown, although the four contexts mentioned above contained lighter coloured material. 'Angularity' was recorded as mostly 'spiky' with only small amounts of battered and eroded fragments present from some deposits.

The material from Romano-British (Phase 1) contexts was homogeneous in appearance, whilst the material from several medieval (Phase 2) contexts was more mixed in appearance (i.e. contained lighter coloured, more battered fragments). The fragmentation of the bones was generally greater in the assemblage from Phase 2 and there was also a higher percentage of fresh breakage evident. Butchery and dog gnawing were evident in small amounts throughout both phases, whilst burning was seen only on a small proportion of Phase 2 material.

The nineteen contexts from which material was examined contained a total of 182 bone fragments (weighing 2719 g), of which 74 (2003 g) were identified to species or species group. The numbers of measurable fragments, mandibles and loose teeth, as well as weights, are given in Table 1,

together with the total numbers of fragments for each species. The numbers of fragments for each species by phase are given in Table 2, whilst standard measurements of the bones are presented in Table 3. The small size of the assemblage precludes further detailed comment.

**Statement of potential**

The sediment samples have no further potential for bioarchaeological investigation.

The assemblage of vertebrate remains from the present evaluation has little bioarchaeological significance because of its small size and the limited numbers of identified fragments. The small biometrical archive may be of limited use in supplying additional data for future size and shape studies of domestic animals of Roman and medieval date. Data from this assemblage will add little additional information to the vertebrate remains already recovered from two earlier interventions at the Malmo Road site (Carrott *et al.* 1992). Of these, the largest vertebrate assemblage is still only tentatively dated to the medieval period, after being thought initially to be of Romano-British date. A tighter dating framework will be required before any further work on all vertebrate material from Malmo Road can proceed.

**Recommendations**

No further work need be undertaken on the present sediment samples. If deposits with organic preservation by anoxic waterlogging, or higher concentrations of charred plant remains, are exposed by further excavation or during development every effort should be made to sample and investigate them.

No further work on the hand collected bone is warranted, although it should be borne in mind that if further excavation is undertaken at the site, a moderately well preserved vertebrate assemblage will be recovered. Such an assemblage would be important in gaining further information about the economic activities of Romano-British and medieval rural settlements in this region of the East Riding of Yorkshire.

### Retention and disposal

Any remaining sediment samples may be discarded. The bone 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. Summary of vertebrate remains from Malmo Road, Hull (MAL97).

Taxon		No. Measurable	No. Mandibles	No. Teeth	Total no. Fragments	Weight (g)
<i>Felis f. domestic</i>	Cat	3	1	-	5	-
<i>Equus f. domestic</i>	Horse	2	-	1	14	-
<i>Sus f. domestic</i>	Pig	-	-	-	4	-
<i>Bos f. domestic</i>	Cattle	4	1	1	17	-
Caprovid	Sheep/goat	4	4	5	34	-
<i>Subtotal</i>		<i>13</i>	<i>6</i>	<i>7</i>	<i>74</i>	<i>2003</i>
<i>Unidentified</i>		-	-	-	108	716
<b>Total</b>		<b>13</b>	<b>6</b>	<b>7</b>	<b>182</b>	<b>2719</b>

Table 2. Numbers of fragments per species by phase from Malmo Road, Hull (MAL97).

Taxon		Phase 1: Romano-British	Phase 2: Medieval	Total
<i>Felis f. domestic</i>	Cat	5	-	5
<i>Equus f. domestic</i>	Horse	12	2	14
<i>Sus f. domestic</i>	Pig	1	3	4
<i>Bos f. domestic</i>	Cattle	7	10	17
Caprovid	Sheep/goat	1	33	34
<i>Unidentified</i>		26	82	108
<b>Total</b>		<b>52</b>	<b>130</b>	<b>182</b>

Table 3. Biometrical data from Malmo Road, Hull (MAL97). Following von den Driesch (1976) with additional measurements following the sheep-goat working-party (Davis 1992 and Dobney et al. 1996 and unpublished).

Context no.	Species	Element	Measurements			
21	Cat	Tibia	Bd = 14.7	Dd = 9.5	SD = 7.3	
21	Cat	Metatarsal	GL = 48.4	Bd = 5.2	SD = 3.7	
9	Horse	Premolar 2	L = 29.5	B = 15.7		
85	Horse	Metatarsal	Bp = 43.4	Dp = 35.6	SD = 24.9	
107	Horse	Humerus	BT = 75.8	HT = 54.6	HTC = 37.7	SD = 35.9
21	Cattle	Metacarpal	Bp = 52.8	Dp = 30.4	SD = 29.0	
21	Cattle	Calcaneum	C = 27.1	C + D = 45.3	DS = 38	
93	Cattle	Astragalus	Bd = 42.7	DI = 37.1		
107	Cattle	Tibia	Bd = 58.1	Dd = 44.2		
20	Sheep/goat	Humerus	BT = 27.6	HT = 17.4	HTC = 14.5	
50	Sheep/goat	Humerus	BT = 28.0	HT = 18.9	HTC = 14.2	
85	Sheep/goat	Radius	Bp = 29.4	BFp = 26.5		
96	Sheep/goat	Astragalus	Bd = 16.4	DI = 13.5	GL = 25.7	