

*Reports from the Environmental Archaeology Unit, York 97/41, 6 pp.*

**An evaluation of biological remains from excavations at The Fox,  
Tadcaster Road, Dringhouses, York (site code: 1997.70)**

by

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**Summary**

*Two samples of sediment and two boxes of hand-collected bone from deposits of Roman to modern date excavated at The Fox, Tadcaster Road, Dringhouses, York were submitted for an evaluation of their potential for bioarchaeological analysis.*

*The sediment samples were almost barren of ancient biological remains, though further examination of the charcoal recovered from the deposits may yield a little information if there are relevant archaeological questions to be addressed.*

*The small size and general date of the recovered bone assemblage and the limited number of bones which can be used to obtain age-at-death and biometrical information render this material of extremely limited zooarchaeological potential. However, as the material was reasonably well-preserved, further, more extensive excavation may provide a useful assemblage particularly if a tighter chronological framework were achieved.*

**Keywords:** THE FOX; TADCASTER ROAD; DRINGHOUSES; YORK; ROMAN; POST-MEDIEVAL; CHARRED PLANT REMAINS; BONE

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19 September 1997

## An evaluation of biological remains from excavations at The Fox, Tadcaster Road, Dringhouses, York (site code: 1997.70)

### Introduction

Excavations at The Fox, Tadcaster Road, Dringhouses, York undertaken in 1997 by York Archaeological Trust revealed deposits of Roman to modern date in four trenches. Two samples of sediment (both from Trench 1) and two boxes of hand-collected bone from these deposits have been examined to evaluate their bioarchaeological potential.

### Methods

#### *Sediment samples*

Two samples of sediment ('GBAs' *sensu* Dobney *et al.* 1992) were submitted. The samples were inspected in the laboratory and a description of their lithologies recorded using a standard *pro forma*. Subsamples of 2 kg were taken from each of the samples for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

Plant macrofossils were examined from both the residues and the washovers resulting from processing, and the washovers were examined for invertebrate remains. Neither of the samples were deemed suitable for examination for the eggs of parasitic nematodes.

Artefacts were removed from the residues to be returned to the excavator.

#### *Bone*

Two boxes (of 20 litres and 34 litres) of animal bones were recovered. Material from twenty of the twenty-five bone-bearing contexts was recorded in detail. The remaining five contexts were of modern or uncertain date and the bones recovered from these deposits were only rapidly scanned. The recorded assemblage was mainly dated to the Roman period,

with the exception of Contexts 3003 and 3004 which were fills of a probable post-medieval pit.

Semi-subjective, non-quantitative data were recorded for each context regarding the state of preservation, colour, and the appearance of broken surfaces ('angularity'), whilst quantities and identifications were noted where appropriate. Additionally, semi-quantitative information was recorded for each context concerning fragment size, dog gnawing, burning, butchery and fresh breaks. Fragments not identified to species were, where possible, grouped into the categories of large mammal (assumed to be horse, cow or large cervid), medium mammal (assumed to be sheep, pig or small cervid) and unidentifiable (these included skull, vertebra, rib and shaft fragments and other elements where species identification was unclear). The fragment counts of the species groups are included in the 'unidentifiable' totals.

### Results

#### *The sediment samples*

The results of the investigations are presented in context number order with information provided by the excavator in brackets

**Context 1022** [Sample taken from the only fill (1022) of a shallow Roman gully (1023) at the bottom of Trench 1]

Sample 1

Moist, mid grey brown, crumbly and slightly sticky (working soft and slightly sticky), slightly clay silty sand with some lighter brown more sandy patches. Very small stones (2 to 6 mm), charcoal and fragments of large mammal bone were present in the sample.

The large washover was mostly cinder (to 15 mm) and charcoal (to 5 mm) with some sand and a few fragments of very rotted bone.

The small residue was mostly sand and gravel with some stones (to 35 mm), a tiny pot sherd, brick/tile, traces of charcoal (to 7 mm), a single charred grain and a few fragments of bone. The latter comprised two amphibian bones (a vertebra and a long bone shaft fragment), a medium-sized mammal rib fragment and a few unidentified fragments.

**Context 1025** [Sample taken from the uppermost fill (1025) of a large Roman ditch (1024)]  
Sample 2

Moist, mid to dark grey brown, crumbly soft and slightly sticky (working soft and slightly sticky), slightly clay silty sand with some lighter brown more sandy patches. Very small and small stones (2 to 20 mm) and charcoal were present in the sample.

The large washover was mostly charcoal (to 10 mm) with some cinder and sand, a few earthworm egg capsules and two bone fragments.

The small residue was mostly sand and gravel with some stones (to 30 mm), traces of charcoal (to 5 mm) and slag and nine unidentified bone fragments (some of which were burnt).

### *Bone*

The range of identified species recovered from the excavations is shown in Tables 1 and 2, together with total number of fragments, numbers of measurable bones and numbers of mandibles with teeth *in situ*. Measurements (following those outlined by von den Dreisch 1976) taken as part of a biometrical archive are presented in Table 3.

### **Post-medieval assemblage**

The probable post-medieval pit fills produced a small assemblage of well-preserved bone, amounting to 8 identified and 69 unidentified fragments. Remains of cattle comprised the bulk of the fragments and on the basis of the condition of the material and the skeletal elements present in

both deposits, these remains probably represent part of the skeleton of a single individual.

### **Roman assemblage**

A total of 68 identified and 539 unidentified fragments was recovered from eighteen contexts. Cattle were the most frequently represented species, with the unidentifiable fraction containing many vertebra, shaft and rib fragments recorded as large mammal (assumed to be cattle). Other species present included caprovids, horses and pigs but in very small numbers.

In general, the material was moderately well-preserved, although many of the deposits contained a small number of fragments that were battered in appearance with rounded, broken surfaces. Colour ranged from brown to gingery-fawn and fawn, with some variation apparent within contexts.

Few of the bones showed evidence of fresh breakage, with the exception of those from two deposits (Contexts 4000 and 4004) which contained many small fragments with new breaks. The proportions of fragments showing evidence of butchery in those groups selected for detailed recording was low (0-10% in most cases). Dog gnawing was also noted but on very few of the remains.

There were only 22 measurable fragments, 7 mandibles and 10 isolated teeth from this assemblage.

### **Discussion and statement of potential**

Ancient plant remains were confined to charcoal fragments (almost certainly from wood used for fuel), further examination of which may yield a little information if there are relevant archaeological questions to be addressed. No ancient invertebrate remains were observed.

The small size and general date of the recovered bone assemblage and the limited number of bones which can be used to obtain age-at-death and biometrical information render this material of extremely limited zooarchaeological

potential. However, as the material was reasonably well-preserved, further, more extensive excavation may provide a useful assemblage particularly if a tighter chronological framework were achieved.

## Recommendations

If deposits with organic preservation by anoxic waterlogging, higher concentrations of charred plant material, or larger quantities of bone are exposed by further excavation every effort should be made to sample and investigate them.

## Retention and disposal

Any remaining sediment samples may be discarded unless they are to be sieved for artefact recovery.

The hand-collected bone assemblage should be retained for the present.

## Archive

All extracted fossils from the test subsamples, and the residues and flots are currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

## Acknowledgements

The authors are grateful to York Archaeological Trust for making this material available.

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Table 1. Total number of fragments by date and weights (for both periods) from The Fox, Tadcaster Road, Dringhouses, York.

Species		Roman	Post-medieval	Total	Weight (g)
<i>Equus f. domestic</i>	horse	9	-	9	638
<i>Sus f. domestic</i>	pig	5	-	5	114
<i>Bos f. domestic</i>	cattle	48	5	53	3,209
Caprovid	sheep/goat	3	2	5	97
<i>Ovis f. domestic</i>	sheep	3	1	4	
<b>Subtotal</b>		<b>68</b>	<b>8</b>	<b>76</b>	4058
Unidentified		539	69	608	7,037
<b>Total</b>		<b>607</b>	<b>77</b>	<b>684</b>	<b>11,095</b>

Table 2. Numbers of measurable fragments, mandibles and isolated teeth for both periods from The Fox, Tadcaster Road, Dringhouses, York.

Species		No. measurable	No. mandibles	No. isolated teeth
<i>Equus f. domestic</i>	horse	2	-	-
<i>Sus f. domestic</i>	pig	-	1	1
<i>Bos f. domestic</i>	cattle	19	4	8
Caprovid	sheep/goat	3	2	1
<b>Subtotal</b>		<b>24</b>	<b>7</b>	<b>10</b>
Unidentified		-	-	-
<b>Total</b>		<b>24</b>	<b>7</b>	<b>10</b>

Table 3. Biometrical archive for The Fox, Tadcaster Road, Dringhouses, York (measurements follow those outlined by von den Driesch 1976).

Context	Species	Element	Measurements				
3004	Sheep	Humerus	BT= 30.99	HT= 21.25	HTC= 16.25	SD= 17.10	
4000	Sheep	Calcaneum	DS=19.30	C=13.24	C+D=23.32	GL=56.80	
1015	Sheep	Tibia	BD=24.09	Dd=20.60	SD=10.32		
4004	Horse	Metacarpal	GL=234.9	SD=33.74	BD=52.82	Dd=38.01	
4000	Horse	Metatarsal	Bd=53.85	Dd=39.61			
2008	Cow	Horncore	45=46.80	46=38.05	BC=137		
3010	Cow	Humerus	BT=76.72	HT=44.15	HTC=35.15		
2008	Cow	Humerus	BT=68.45	HT=40.95	HTC=34.03	SD=30.72	
1015	Cow	Radius	Bp=74.79	BFp=68.30			
4000	Cow	Metacarpal	BFp=59.00	DFp=33.23			
4000	Cow	Metacarpal	BFp=50.85	DFp=30.43			
4000	Cow	Metacarpal	BFp=51.24	DFp=31.40			
3005	Cow	Metacarpal	Bd=52.63	Dd=29.11	Dem=22.05	Dvm=29.16	Dim=26.27
2008	Cow	Metacarpal	BFp=51.73	DFp=32.52			
1018	Cow	Metacarpal	Bd=61.80	Dd=30.70	Dem=22.50	Dvm=30.70	Dim=28.80
4000	Cow	Calcaneum	DS=35.98				
4000	Cow	Calcaneum	DS=36.00	C=26.87	C+D=45.86		
1017	Cow	Calcaneum	DS=35.40	C=22.70	C+D=42.00		
4000	Cow	Astragalus	GLI=58.27	DI=31.22	Bd=37.66		
4000	Cow	Astragalus	GLI=55.41	DI=30.55	Bd=37.85		
3002	Cow	Astragalus	GLI=59.87	DI=33.59	Bd=38.11		
4000	Cow	Metatarsal	BFp=41.84	DFp=42.37	SD=23.25		
2008	Cow	Metatarsal	GL=221.2	SD=28.22	BFp=51.87	DFp=45.57	Bd=59.89
			Dem=24.47	Dim=28.38			
1018	Cow	Metatarsal	GL=200.0	SD=22.90	DFp=39.60	Dd=27.40	Dem=19.40
			Dvm=26.60	Dim=26.40			