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An evaluation of biological remains from excavations at 19 Fetter Lane, York (site code: 1997.96)

by

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Summary

Three samples of sediment and one box of hand-collected bone from deposits of Roman to modern date excavated at 19 Fetter Lane, York, were submitted for an evaluation of their potential for bioarchaeological analysis.

The extremely limited number of plant taxa encountered in the samples provides very little opportunity to draw wider inferences about the contexts. Further examination of the charcoal may yield a little information if there are relevant archaeological questions to be addressed.The only invertebrate macrofossil observed was a single land snail.

Although small, the vertebrate assemblage was generally well preserved with a moderate number of measurable bones. This suggests that, should further excavation be undertaken, a significant animal bone assemblage could be recovered. The fish remains present in the two samples indicate that a useful additional assemblage would be produced should an extensive sampling regime be employed. Very few well-dated late Roman remains have been recovered from sites in England and thus a moderate to large assemblage from Fetter Lane would be of both regional and national significance.

Keywords: FETTER LANE; YORK; ROMAN; MEDIEVAL; POST-MEDIEVAL; CHARRED PLANT REMAINS; BONE

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Introduction

Excavations at 19 Fetter Lane, York, undertaken in September 1997 by York Archaeological Trust, revealed deposits of Roman to modern date. Three samples of sediment and one box of hand-collected bone from these deposits have been examined to evaluate their bioarchaeological potential.

Methods

Sediment samples

Three 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 3 and 3.2 kg, respectively, were taken from two of the samples for extraction of macrofossil remains, following procedures of Kenward *et al*. (1980; 1986). All of the third sample (3.8 kg, Sample 2) was sieved to 500 µm.

Plant macrofossils were examined from both the residues and the washovers resulting from processing, and the washovers were examined for invertebrate remains. None 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

Vertebrate data were recorded electronically directly into a series of tables using a purpose-built input system and *Paradox* database software. 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 and Dobney *et al.* 1996 and unpublished). Weights of identified and unidentified fragments were also recorded.

Results

The sediment samples

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

Context 1018 [Roman 'ashy' deposit]
Sample 1/T (3 kg washover)

Just moist, light brown (with lighter patches), crumbly, slightly clay silt with small and medium-sized stones (6 to 60 mm), rotted mortar, brick/tile and charcoal present.

The inorganic fraction of the washover contained a

moderate quantity of fine to coarse quartz sand and some silt. Granules of aggregated sediment remained even after vigorous washing.

The assemblage of fruits and seeds was very limited in number and species diversity. Three weed taxa were recorded, accompanied by two types of sedge (*Carex* spp., both two- and three-sided types). All of the plant remains were charred. Moderate amounts of charcoal were encountered to a maximum size of 7mm. The remaining organic components of the sample consisted of two poorly preserved fragments of moss, rare sclerotia of soil fungi, modern herbaceous rootlets and a single poorly preserved land snail shell (*Discus rotundatus* (Müller)).

The small residue was mostly stones and sand with a little bone and fragments of shell (?shellfish). The small quantity of vertebrate remains present in the residue included a single cyprinid (perch family) scale and a few small and unidentifiable mammal bone fragments.

Context 2020 [?Suggestion as to the nature and derivation of the deposit?]
Sample 2/BS (3.8 kg bulk sieved to 500 µm)

Moist, mid to dark grey brown, crumbly to unconsolidated, slightly clay silt. Very small to medium-sized stones (2 to 60 mm), mortar, brick/tile, mammal bone and a single iron ?nail were present in the sample.

A small assemblage of vertebrate remains was recovered (see below).

Context 2021 [?Suggestion as to the nature and derivation of the deposit?]
Sample 3/T (3.2 kg washover)

Just moist, mid brown, crumbly, slightly clay silt with small and medium-sized stones (6 to 60 mm), mortar, pot, charcoal and large mammal bone present.

This sample produced a very small washover composed principally of fine to coarse sand with a moderate quantity of aggregated sediment. Moderate numbers of charcoal fragments (to 8 mm) formed the main part of the plant assemblage. No fruits or seeds were found and modern herbaceous rootlets were rare.

The residue was mostly stones and sand with a little brick/tile, mortar, charcoal and pot.

Mammal bone fragments (mostly unidentifiable), herring (*Clupea harengus* L.) and eel vertebrae and other fish remains (some identifiable) were also recovered.

Bone

The hand-collected vertebrate remains

A single box (34 litres) of vertebrate remains was submitted for evaluation of their bioarchaeological potential. They represented 14 bone-bearing contexts from Trench 1 and ten from Trench 2, which were split into five periods Roman (7 contexts), ?Anglo-Scandinavian (4), medieval (8), post-medieval/modern (4) and modern (1). The Roman material was recovered only from Trench 1. Preservation of the material from Trench 1 was mostly good, the colour dark brown and the 'angularity' mainly 'spiky'. Some of the fragments from this trench had concretions on the surface that appeared to have a high iron content. Material from Trench 2 was mostly fairly well preserved, the colour fawn and the angularity 'spiky' or slightly battered.

From the small bone assemblage approximately a quarter of the fragments could be identified to species or species group and, of the identified fragments, cattle and caprovid were the most numerous, followed by pig and chicken. Most material was recovered from the Roman contexts with cattle fragments being the most numerous. 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 is 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.

The vertebrate remains from the sediment samples

A small, well preserved assemblage of fish, including fragments of herring, eel, and gadid (cod family), was recovered from two samples (Sample 2/BS, Context 2020 and Sample 3/T, Context 2021) of possible Anglo-Scandinavian date. A single cyprinid scale was recovered from a further sample (Sample 1/T, Context 1018) of Roman date. Fish remains are not usually found in any quantity in Roman deposits, but here the good preservation suggests an extensive sieving programme may

recover sufficient material to provide a valuable opportunity for study. (Fish remains were represented by a single fragment in the hand-collected material indicating a bias in the recovery of material by this method.)

In addition to the fish bone from the sediment samples, a cow second phalanx and numerous fragments of unidentified mammal bone were recovered.

Discussion and statement of potential

The extremely limited number of plant taxa encountered in the samples provides very little opportunity to draw wider inferences about the contexts. Further examination of the charcoal may yield a little information if there are relevant archaeological questions to be addressed. The only invertebrate macrofossil observed was the single land snail from Context 1018.

Although small, the vertebrate assemblage was generally well preserved, particularly fragments from Trench 1, with a moderate number of measurable bones. This suggests that, should further excavation be undertaken, a significant animal bone assemblage could be recovered. The fish remains present in the two samples indicate that a useful additional assemblage would be produced should an extensive sampling regime be employed. Very few well-dated late Roman remains have been recovered from sites in England and thus a moderate to large assemblage from Fetter Lane would be of regional and national significance. This period has been highlighted by English Heritage as a research priority (English Heritage 1991; 36). Similarly, medieval assemblages from York are rather scarce in the published literature. Useful comparisons could be made with Roman assemblages from the General Accident site (O'Connor 1988), Wellington Row (Carrott *et al.* 1995), and Tanner Row (Carrott *et al.* 1997) and medieval assemblages from Merchant Adventurers' Hall (Carrott *et al*. 1996), and Coppergate (unpublished), York, and with material from Beverley (Scott 1991; 1992).

Recommendations

No further work need be undertaken on the present material but in planning further work it should be remembered that a significant vertebrate assemblage could be recovered, both by hand-collection and by following an extensive sampling regime, and that provision should be made for post-excavation research on this material and subsequent publication.

If deposits with organic preservation by anoxic waterlogging or higher concentrations of charred plant material 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.

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Table 1. Numbers of types of bone fragment and bone weights for hand-collected material from 19 Fetter Lane, York.

Taxon		**No. Measureable**	**No. Mandibles**	**No. Teeth**	**Total**	**Weight (g)**
Canis f. domestic	dog	1	-	-	3	15
Sus f. domestic	pig	1	1	-	21	219
Bos f. domestic	cattle	5	-	1	35	1032
Caprovid	sheep/goat	14	4	1	35	469
Anas sp.	duck	1	-	-	1	2
Gallus f. domestic	chicken	8	-	-	18	20
Columbidae sp.	pigeon	-	-	-	1	1
Bird		-	-	-	8	8
Fish		-	-	-	1	<0.1
Subtotal		***30***	***5***	***2***	***123***	***1766***
Unidentified		-	-	-	331	3068
Total		**30**	**5**	**2**	**454**	**4834**

Table 2. Numbers of fragments of hand-collected bone by date from 19 Fetter Lane, York.

Taxon		**Roman**	**?Anglo-Scandinavian**	**Medieval**	**Post-medieval**	**Modern/ mixed**	**Total**
Canis f. domestic	dog	2	1	-	-	-	3
Sus f. domestic	pig	10	5	4	-	2	21
Bos f. domestic	cattle	25	3	4	1	2	35
Caprovid	sheep/goat	18	4	3	-	10	35
Anas sp.	duck	1	-	-	-	-	1
Gallus f. domestic	chicken	12	3	2	-	1	18
Columbidae sp.	pigeon	1	-	-	-	-	1
Bird		5	-	3	-	-	8
Fish		1	-	-	-	-	1
Subtotal		***75***	***16***	***16***	***1***	***15***	***123***
Unidentified		236	37	32	4	22	331
Total		**311**	**53**	**48**	**5**	**37**	**454**

Table 3. Biometrical archive for vertebrate material from 19 Fetter Lane, York (Sh/g = sheep/goat).

Species	**Element**	**Context**	**Measurements**				
Chicken	Carpometacarpus	2008	GL = 39.2	Bp = 12.6	Did = 8.7		
Chicken	Humerus	1018	Bd = 13.7	SC = 6.5			
Chicken	Humerus	1019	Bd = 15.6	SC = 6.9			
Chicken	Radius	2000	GL = 73.1				
Chicken	Tarsometatarsus	1019	GL = 69.6	SC = 5.5	Bp = 11.5	Dp = 11.4	
Chicken	Tarsometatarsus	1019	Bp = 11.8	SC = 5.8			
Chicken	Tibiotarsus	1009	Bd = 10.1	Dd = 10.6			
Duck	Ulna	1018	Did = 10.9	SC = 5.0			
Cow	Astragalus	2002	GLl = 59.3	DL = 34.0	Bd = 39.9		
Cow	Astragalus	1019	GLl = 62.6	DL = 34.6	Bd = 41.0		
Cow	Astragalus	1019	Bd = 35.9				
Cow	Metacarpal	1019	Bd = 48.7	Dd = 27.0	Dem = 20.5	Dvm = 27.1	Dim = 24.3
Cow	Metacarpal	1019	Bd = 53.2	Dd = 28.4	Dem = 20.9	Dvm = 28.2	Dim = 26.4
Cow	Metatarsal	1001	Bd = 60.4	Dd = 34.5	Dem = 26.2	Dvm = 34.4	Dim = 31.1
Dog	Tibia	1019	Bd = 13.9	Dd = 9.4	SD = 7.9		
Pig	Humerus	1019	BT = 29.1	HT = 25.0	HTC = 16.9		
Sh/g	Radius	2000	Bp = 31.9	BFp = 29.4			
Sh/g	Radius	2000	Bp = 33.1	BFp = 30.1			
Sh/g	Radius	1019	Bp = 28.9	BFp = 25.7	SD = 14.4		
Sh/g	Scapula	1019	GLP = 32.2	ASG = 22.3	SLC = 18.8		
Sh/g	Tibia	2002	Bd = 25.9	Dd = 18.5			
Sheep	Humerus	1019	HT = 17.5	HTC = 13.5			
Sheep	Metacarpal	2000	Bd = 23.1	Dd = 15.0	Dem = 9.6	Dvm = 14.6	Dim = 12.5
Sheep	Metacarpal	2000	GL = 117.2	Bp = 23.3	SD = 13.4	Dem = 10.7	Dvm = 15.8
			Dim = 13.4				
Sheep	Metacarpal	2000	SD = 13.4	Dem = 11.1	Dvm = 15.3	Dim = 13.7	
Sheep	Metacarpal	2017	GL = 117.0	Bp = 22.3	Dp = 16.6	SD = 13.5	Bd = 25.1
			Dd = 15.2	Dem = 10.7	Dvm = 15.2	Dim = 12.6	
Sheep	Metatarsal	1019	GL = 110.4	Bp = 17.2	Dp = 17.5	SD = 9.4	Bd = 20.3
			Dd = 13.9	Dem = 8.8	Dvm = 14.0	Dim = 11.6	
Sheep	Metatarsal	1019	Bp = 19.2	Dp = 18.2	SD = 11.9		
Sh/g	Metatarsal	2005	GL = 121.4	Bp = 20.7	SD = 12.0		