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**Evaluation of the biological remains from Ailcy Hill, Ripon
(site code HARGM:8947)**

by

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Summary

Four samples of sediment and a single box of hand-collected bone from excavations at a site adjacent to Ailcy Hill and Priest Lane, Ripon, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential. The few dateable fragments recovered tentatively suggest a range of dates from the pre-conquest to post-medieval periods.

One sample was selected for processing but contained only trace amounts of ancient plant and invertebrate remains of no interpretative value.

The small, reasonably preserved, vertebrate assemblage included remains of the main domesticated species, probably representing both domestic and primary butchery waste. The presence of human bone fragments indicates a degree of reworking in two contexts.

KEYWORDS: AILCY HILL, RIPON, MEDIEVAL, POST MEDIEVAL, PLANT REMAINS; CHARRED PLANT REMAINS; INVERTEBRATES; VERTEBRATE REMAINS.

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Introduction

An evaluation excavation was undertaken by York Archaeological Trust at a site adjacent to Ailcy Hill and Priest Lane, Ripon, North Yorkshire (NGR: SE 3165????), during the beginning of March 1998. Eight trenches were excavated across the site, mostly to coincide with geophysical anomalies. Four sediment samples and a single box of bone were submitted for analysis of the bioarchaeological potential. Dating of the deposits ranges from pre-conquest to post-medieval, but is tentative as very little datable material was recovered from many contexts.

Methods

Sediment samples

All four sediment samples were inspected in the laboratory and on the basis of this inspection and information supplied by the excavator a single sample was chosen for further work. A description of the lithology of all four samples was recorded using a standard *pro forma*. For the sample requiring further work a subsample of 3 kg was taken for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986).

None of the samples were deemed suitable for examination for microfossils.

Vertebrate remains

The vertebrate remains were examined and a basic archive produced. A record was made of preservation, quantities (numbers and weights) and identifications where appropriate. Measurements were taken, where applicable, according to von den Driesch (1976).

Results

Sediment samples

Context 1004 [Basal fill of cut]
Sample 1/T (3 kg GBA)

A moist, mid grey-brown, crumbly and sticky to unconsolidated (working soft and sticky) slightly sandy clay silt with large stones (>60 mm) present.

The small flot was mostly coarse sand, small pieces of orange burnt sediment (to 2 mm), charcoal (to 10 mm) and modern herbaceous rootlets with some woody rootlets (also modern) and 'char' (charred amorphous material). Several poorly preserved fragments of insect cuticle and fly puparia (possibly post-depositionally intrusive), a few earthworm egg capsules, a cyprinid fish scale, a charred oat (*Avena* sp.) grain, a few modern grass (Graminae) seeds and fragments of shell were also noted.

The residue was mostly stones (to 40 mm) and coarse sand with a single unidentified bone fragment.

Context 2002 [pre-Conquest ditch fill]
Sample 2 (Description only)

A moist, mid brown, crumbly to unconsolidated (working soft), stony clay sandy silt with very small,

small and medium-sized stones (2 to 60 mm) common and large stones (>60 mm) present. Charcoal was present and modern rootlets evident.

No further work was undertaken on this sample.

Context 2004 [pre-Conquest ditch fill]
Sample 3 (Description only)

A moist, light to mid brown, crumbly to unconsolidated (working soft), stony silty, clay sand with very small, small and medium-sized stones (2 to 60 mm) common and large stones (>60mm) present. Eggshell or snail shell fragments were present and many modern rootlets were evident.

No further work was undertaken on this sample.

Context 3002 [Fill of linear cut]
Sample 4 (Description only)

A moist, mid grey brown, crumbly to unconsolidated (working soft), stony slightly sandy clay silt with small lumps of dry grey clay (mostly 2 to 3 mm). Very small, small and medium-sized stones (2 to 60mm) were common and large stones (>60mm) present. Modern roots were evident.

No further work was undertaken on this sample.

Vertebrate remains

Overall, preservation was fair with angularity (appearance of broken surfaces) mostly described as battered. Colour was variable with most fragments described as fawn.

Material from Context 2002 was quite poorly preserved, with most fragments having rounded surfaces. In contrast context 2004 produced reasonably well preserved material and contained more identifiable fragments than most of the other deposits. This possibly suggests that the material from Context 2004 may have been incorporated quite quickly into the deposit whilst material from Context 2002 lay exposed for a greater length of time.

The human bone fragments in Contexts 6005 and 7003 were better preserved than the animal remains in the same deposits.

Fragmentation was not extensive, most fragments being between five and 20 cm in their greatest dimension. Dog gnawing, butchery and fresh breakage were evident on approximately 10-20% of fragments whilst burning was noted on only 0-10% of fragments. Of note was a cattle femur fragment in Context 7001, which had been sawn at both ends. This suggests a possible post-medieval date for this deposit since the use of the saw for butchery is rarely encountered in earlier material.

Table 1 gives the number of fragments and weights by species, together with the number of unfused or juvenile fragments and the number of mandibles and loose teeth of use in age at death analysis. A total of 267 fragments (weighing 4071 g) were recovered, of which 70 (2587 g) were identifiable to species or species group. Cattle (*Bos f. domestic*) fragments were the most numerous, followed by sheep/goat (caprovid) and pig (*Sus f. domestic*). Other species, including horse, dog, roe deer (*Capreolus capreolus* L.), chicken and goose (*Anser* sp.), were represented by a single or few fragments.

The assemblage contained twelve measurable fragments (Table 2), two mandibles, four loose teeth and four sub-adult fragments. The small numbers of fragments involved and the poor dating framework precluded any analysis of the assemblage by period. Skeletal element representation for the main domesticates showed that, even with very small numbers, most body parts were represented, indicating the presence of both primary butchery and domestic waste.

Discussion and statement of potential

Sediment samples

The processed subsample (selected as the most likely to produce useful assemblages of biological remains) contained only trace amounts of ancient plants and invertebrates of little interpretative value. Hence, the remaining samples are considered unlikely to be of any value in site interpretation.

Vertebrate remains

The mediocre preservation, small size of the vertebrate assemblage, and the very tentative dating framework, renders it of limited interpretative value.

Previous excavations have located human burials, of pre-conquest date, close to the present site (Hall and Whyman 1996). Therefore, the presence of human bone fragments may indicate a degree of reworking within deposits represented by Contexts 6005 and 7003.

The species and element representations (although limited) suggest the vertebrate assemblage is composed of mainly domestic refuse with some primary butchery waste. However, insufficient fragments recovered from within the different feature types and the limited dating information precludes any significant spatial or chronological interpretation.

The fair preservation means that further excavation may yield a larger assemblage, but unless a tighter dating framework can be achieved the potential of the remains would be severely limited.

Recommendations

No further work is recommended on the sediment samples. No further work is recommended for the present vertebrate assemblage. However, if further excavation should take place a moderate assemblage of reasonably preserved vertebrate remains is likely to be recovered. Provision should be made for the full post-excavation analysis and publication of material recovered.

Retention and disposal

All of the remaining sediment samples may be discarded. The vertebrate remains 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.

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Table 1. The vertebrate remains from Ailcy Hill, Ripon.

Taxa		No. Unfused	No. Juvenile	No. Mandibles	No. Teeth*	Total no. Frag	Weight (g)
Dog	<i>Canis f. domestic</i>	-	-	-	-	2	15
Horse	<i>Equus f. domestic</i>	-	-	-	-	5	769
Pig	<i>Sus f. domestic</i>	2	-	-	1	11	148
Roe deer	<i>Capreolus capreolus L.</i>	-	-	-	-	2	16
Cow	<i>Bos f. domestic</i>	-	1	-	1	25	1297
Sheep/goat	Caprovid	1	-	2	2	20	245
Goose	<i>Anser sp.</i>	-	-	-	-	1	4
Chicken	<i>Gallus f. domestic</i>	-	-	-	-	2	3
Human	<i>Homo sapiens</i>	-	-	-	-	2	90
Subtotal		3	1	2	4	70	2587
Medium mammal		-	-	-	-	82}	
Large mammal		-	-	-	-	83}	1484
Unidentified		-	-	-	-	32}	
Subtotal		-	-	-	-	197	1484
Total		3	1	2	4	267	4071

*Includes only those teeth of use for ageing or sexing information.

Table 2. Measurements of vertebrate remains from Ailcy Hill, Ripon.

Context	Species	Element	Side	Measurements				
2004	Cow	Astragalus	L	GLI=57.98	Bd=38.98	DL=32.28		
3007	Cow	Metacarpal	L	Bp=47.12	Dp=29.26			
6001	Cow	Metacarpal	R	GI=204.26	Bp=56.42	Dp=35.86	SD=34.58	Bd=58.53
				Dd=32.11	Dem=25.36	Dvm=32.53	Dim=29.83	
6001	Sheep/ goat	Humerus	L	BT=26.48	HT=17.85	HTC=14.09	SD=14.4	
2004	Sheep	Humerus	R	BT=29.78	HT=18.96	HTC=15.26		
6001	Sheep	Radius	R	Bp=32.69	BFp=28.97			
6005	Sheep	Radius	R	GI=150.18	Bp=32.58	BFp=29.83	SD=16.87	
7010	Pig	Radius	R	BFp=28.15				
7001	Horse	Radius	L	Bp=82.88	BFp=74.89	SD=36.71		
2004	Roe deer	Metacarpal	L	Bp=20.53	Dp=15.09			
2004	Chicken	Tibiotarsus	R	Bd=10.41	Dd=10.95			
2004	Goose	Femur	R	GI=79.28	SC=8.36	Bp=20.79	Dp=14.55	