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**Evaluation of biological remains from excavations at land to the south of
North Back Lane, Bridlington, East Riding of Yorkshire
(site code: NBL2001)**

by

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Summary

This report evaluates the bioarchaeological potential of small assemblages of hand-collected vertebrate remains and shell, and remains from three sediment samples, recovered from deposits revealed by excavations at land to the south of North Back Lane, Bridlington. The deposits ranged in date from the prehistoric period to modern day.

All three samples contained low concentrations of poorly preserved charred cereal grains and bone but these were too few to be of interpretative value beyond indicating the survival of these classes of remains within the deposits.

The hand-collected vertebrate assemblage consisted chiefly of the remains of the major domestic species representing both primary butchery waste and domestic refuse. Bird and fish remains were also identified. Three animal skeletons, two pigs and a cow, were recovered; all were juvenile individuals. The cause of death could not be ascertained from the bones. Overall, too few fragments were recovered to warrant further analysis. The good preservation, however, indicates the potential of these deposits for the recovery of vertebrate remains and further excavation in the vicinity could produce a larger and more interpretatively valuable assemblage.

The very small shell assemblage was mostly of well-preserved common periwinkle with traces of other edible marine shellfish. The remains are of no interpretative value beyond that given in the text and no further work on them is recommended.

KEYWORDS: NORTH BACK LANE; BRIDLINGTON; EAST RIDING OF YORKSHIRE; EVALUATION; PREHISTORIC; MEDIEVAL; EARLY POST-MEDIEVAL; POST-MEDIEVAL; MODERN; CHARRED PLANT REMAINS; MARINE SHELL; VERTEBRATE REMAINS

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Introduction

An archaeological evaluation excavation was carried out by Humber Field Archaeology at land to the south of North Back Lane, Bridlington, East Riding of Yorkshire (NGR TA 1015 2865), in June 2001.

Six sediment samples, a small quantity of hand-collected marine shell (approximately 2 litres) and four boxes of bone (approximately 138 litres in total) were recovered from two trenches. Deposit dates fall into five phases:

Phase 1	Pre-occupation
Phase 2	Prehistoric
Phase 3	Medieval: ?13 th -early 15 th century
Phase 4	Late medieval to early post-medieval: ?mid 15 th -mid 16 th century
Phase 5	Post-medieval: late 17 th -early 18 th century to modern

All of the hand-collected material and dried residues and washovers from three of the samples were submitted to the EAU for an evaluation of their bioarchaeological potential.

Methods

Sediment samples

The submitted sediment samples were described and processed (sieved to 1 mm with washovers to 300 microns) prior to delivery to the EAU and were submitted as dried washovers and residues. The biological remains from these were identified where possible.

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 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 categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), bird, fish and completely unidentifiable.

Hand-collected shell

Brief notes were made on the preservational condition of the shell and the remains identified to species where possible.

Results

Sediment samples

Archaeological information provided by the excavator is presented in square brackets. The sediment descriptions given below were also provided by the excavator.

Context 1009 [Occupation deposit or ground raising dump]

Sample 1/BS (3 kg)

Moist, moderately heterogeneous, brittle and crumbly (working crumbly and soft) mix of mid brown ?amorphous organic sediment and lumps (to 100 mm) dark grey sandy silt. Stones (2 to 20 mm), mortar/plaster, brick/tile, charcoal, bone, and eggshell were present in the sample.

This sample yielded a tiny washover consisting of traces of poorly preserved charred cereal grains (including at least one wheat, *Triticum* sp., grain) and charcoal (with a maximum dimension of 5 mm). There was also one earthworm egg capsule which may have been modern. The small residue was of gravel (including chalk fragments to 15 mm), and a little bone (other components were presumably removed prior to delivery to the EAU).

Nineteen fragments of bone (3.7 g) were recovered from this sample. Preservation was fairly good, but the fragments were rather battered in appearance. Most fragments were unidentified to species, but were assigned to the medium-sized mammal category. However, a single amphibian bone was noted.

Context 2032 [Fill of ditch - ?property boundary ditch. ?Late medieval or early post-medieval]

Sample 5/BS (3 kg)

Moist, dark grey to brown, brittle and crumbly (working crumbly and soft), slightly humic, slightly sandy silt. Chalk (2 to 6 mm), mortar/plaster, brick/tile, charcoal, and bone were present in the sample.

The tiny washover consisted of a few fragments of unidentifiable charred organic matter and a few unidentifiable and poorly preserved charred cereal grains, with some modern root fragments. There was a single eroded charred legume cotyledon about 4 mm in diameter. The small residue was of gravel, including chalk fragments to 45 mm, plus a little more charred organic matter, very small fragments of marine shell (to 5 mm) and bone (other components were presumably removed prior to delivery to the EAU).

The bone amounted to 62 fragments (2.5 g). Thirteen of these fragments were fish, including three herring (*Clupea harengus* L.) vertebrae. Small mammals were represented by an incisor and a mouse (*Mus* sp.) mandible fragment. The remaining bones were unidentified. All fragments were less than 25 mm in any dimension.

Context 2036 [Ditch/channel fill. Possibly pre-medieval]

Sample 6/BS (3 kg)

Moist, dark grey, brittle and crumbly (working (crumbly and soft), slightly humic, slightly sandy silt. Mortar/plaster, brick/tile and charcoal were present in the sample.

There was a tiny washover comprising a very few poorly preserved charred cereal grains and some modern root fragments. The small residue consisted of gravel, including chalk to 45 mm, and a little bone (other components were presumably removed prior to delivery to the EAU).

Bone from this sample was reasonably well preserved and included a number of burnt fragments. All of the 56 fragments recovered were less than 15 mm in dimension. Although much of the assemblage was unidentified, some fish remains were present, including herring and ?haddock (cf. *Melanogrammus aeglefinus* (L.)). vertebrae. Additionally, small mammal (including vole) bones and caprovid tooth enamel fragments were recorded.

Hand-collected vertebrate remains

Material was recovered from thirty contexts, twelve from Trench 1 and eighteen from Trench 2. Contexts 1000 and 2000 represented unstratified remains and bones assigned to these numbers were not examined. Tables 1 and 2 do not include counts for the complete animal skeletons from Contexts 1018, 2009 and 2011.

Trench 1

Vertebrate remains from Trench 1, excluding the cattle skeleton from Context 1018, amounted to 125 fragments. Most bones were recovered from yard surfaces, pitfills and layers assigned to Phases 3 (medieval) and 5 (post-medieval). Post hole fills of prehistoric date (Phase 2) produced sixteen of the fragments.

Preservation of the bones from the deposits was mainly good. Fragments from Context 1008, however, were rather battered in appearance, as were some of those from Context 1042. The fragments recovered from Context 1014 were variable in colour.

Cattle and caprovid fragments formed the bulk of the identified remains, with a few pig and horse bones present. Dog and cat remains were also recorded, together with a single duck femur fragment. The

complete cow skeleton recovered from Context 1018 was in excellent condition, suggesting that the burial was quite recent. Most elements were present, including the carpals, tarsals and phalanges and the unfused epiphyses. Both the tibiae and the radii had been deliberately chopped mid shaft, presumably for ease of disposing the carcass. No other signs of butchery or carcass preparation were discernible. This individual was more than a year old, but probably less than 2. Several bones not associated with the burial were identified from this deposit, which included single fragments of pig, caprovid and fowl. These must represent residual or redeposited material.

The assemblage produced ten measurable fragments and three mandibles with teeth *in situ* of use for providing age-at-death and biometrical data.

Trench 2

This trench produced 389 fragments (excluding the animal skeletons) representing sixteen deposits of mainly medieval and early post-medieval date. A further 300 fragments representing two pig skeletons were recovered from pit fills, 2009 and 2011 dated to Phase 4. Dumps, layers and pit fills yielded most of the vertebrate material from this trench.

Preservation of the bones was similar to that from Trench 1, although a greater number of deposits contained battered or eroded fragments. Evidence of butchery was noted but was not extensive. A longitudinally split sheep cranium was recorded from Context 2025, which also showed evidence of horncore removal. A high degree of fragmentation was noted for the bones from Context 2005, with 20-50% being less than 5 cm in any dimension.

The species present included the usual range of domestic animals, with cattle and caprovid remains predominating. A range of elements was present for both species suggesting the presence of both domestic and butchery refuse. The two pig skeletons from pit fills 2009 and 2011 represented juvenile individuals. The piglet recovered from Context 2009 was probably only a few months old. Although many fragments had been hand-collected, few of the smaller skeletal elements, such as carpals, tarsals and phalanges were present. The second pig skeleton from Context 2011 represented a slightly older individual of between 6 and 12 months in age. Most elements were present, but again smaller bones were absent. Minor domesticates, i.e. horse, dog and cat, were also noted.

Material from this trench included bird and fish remains. Most of the fish bones represented large

gadids, of which several were identified as cod (*Gadus morhua* L.). Although fairly fragile and damaged by fresh breakage, some fragments showed evidence of butchery. Birds were represented by chicken, with single fragments of goose (*Anser* sp.), jackdaw (*Corvus monedula* L.), ?common gull (cf. *Larus canus* L.) and ?razorbill (cf. *Alca torda* L.).

Although the assemblage amounted to 389 fragments, only 31 of these were measurable. Additionally, six mandibles with teeth *in situ* of use for providing age-at-death data were recorded.

Hand-collected shell

Ten small bags of hand-collected shell from ten separate contexts (one unstratified deposit from Trench 1 (Context 1000) and nine mostly medieval to early post-medieval deposits from Trench 2 (context numbers in the 2000s)) were recovered. Most of the remains (over 86% by weight) were of generally well preserved common periwinkle shells—with only occasional, poorly preserved, representatives of other marine taxa—and almost all of these (over 90%) were from Context 2016 (a fill associated with wall foundation 2017). A summary of the recorded remains is presented as Table 3.

Discussion and statement of potential

Although there were charred cereal grains in all three samples they were poorly preserved and present at very low concentrations. Further analysis of these samples or others from similar deposits does not seem likely to be worthwhile from an archaeobotanical point of view.

The deposits at this site produced a small vertebrate assemblage. Preservation was reasonably good, but most of the deposits were rather broadly dated—the dates for individual phases spanning several hundred years. The material recovered represented primary butchery waste (skulls, maxillae, mandibles and isolated teeth) and domestic refuse (fish and bird remains and meat-bearing elements of the major domesticates). The three skeletons were fairly complete and showed no sign of butchery. No evidence

was found to indicate how these individuals had died.

The size of the assemblage and the limited number of fragments providing biometrical and age-at-death data were insufficient for further analysis to be worthwhile. However, the recovery of small and, in the case of the pig skeletons, juvenile bones, and the generally good preservation of the vertebrate material highlights the potential for the recovery of vertebrate remains from deposits in this area.

The vast majority of the shell remains were of common periwinkle; edible species common to all British coasts. The few other shell remains were also of edible marine shellfish which, with the exception of oyster, would have been present on the nearby coast. From current evidence, the oysters could only have been imported to the site from the Kent, Essex or Suffolk coasts or the Firth of Clyde (Winder 1992 and pers. comm.). However, Kenward (1998) has speculated that exploitation of local (but as yet unlocated) oyster beds may well have been more widespread along the east coast of England in the medieval and post-medieval periods. All of the shell remains are almost certainly human food waste.

Recommendations

The possibility that contexts with higher concentrations of better preserved charred remains should be borne in mind if further excavation is undertaken at this site.

The vertebrate remains recovered from the deposits were mostly well preserved and, on the whole, did not appear to include redeposited material. It is likely that any larger-scale excavations in this area would produce a moderate-sized, and more interpretatively valuable, assemblage of bone.

No further work is recommended on the remains from the samples or the current shell assemblage.

Retention and disposal

All of the vertebrate material should be retained for the present, but the shell and any remaining unprocessed sediment may be discarded.

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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References

- Kenward, H. K. (1998). Invertebrates in archaeology in the north of England (unpublished draft).
- Winder, J. M. (1992). *A study of the variation in oyster shells from archaeological sites and a discussion of oyster exploitation*. PhD. Thesis, University of Southampton, Department of Archaeology, 304 pp.

Table 1. Hand-collected vertebrate remains (excluding the cattle skeleton from Context 1018) from Trench 1, North Back Lane, Bridlington.

Taxa		Phase 2	Phase 3	Phase 5	Total
<i>Canis f. domestic</i>	dog	-	-	1	1
<i>Felis f. domestic</i>	cat	-	-	3	3
<i>Equus f. domestic</i>	horse	-	-	4	4
<i>Sus f. domestic</i>	pig	-	2	2	4
<i>Bos f. domestic</i>	cattle	6	9	9	24
Caprovid	sheep/goat	1	7	6	14
<i>Anas sp.</i>	duck	-	1	-	1
Unidentified	unidentified	9	25	40	74
Total		16	44	65	125

Table 2. Hand-collected vertebrate remains (excluding the pig skeletons from Contexts 2009 and 2011) from Trench 2, North Back Lane, Bridlington.

Taxa		Phase 3a	Phase 3b	Phase 3c	Phase 4	Phase 5	Modern	Total
<i>Oryctolagus cuniculus</i> (L.)	rabbit	-	-	-	-	1	-	1
<i>Canis f. domestic</i>	dog	-	-	4	-	-	-	4
<i>Felis f. domestic</i>	cat	-	-	-	1	-	1	2
<i>Equus f. domestic</i>	horse	-	1	-	-	-	-	1
<i>Sus f. domestic</i>	pig	-	5	6	6	-	1	18
<i>Bos f. domestic</i>	cattle	-	11	7	18	-	-	36
Caprovid	sheep/goat	1	32	13	31	1	-	78
<i>Anser sp.</i>	goose	-	-	1	-	-	-	1
cf. <i>Larus canus</i> L.	?common gull	-	-	-	1	-	-	1
cf. <i>Alca torda</i> L.	?razorbill	-	1	-	-	-	-	1
<i>Corvus monedula</i> L.	jackdaw	-	-	1	-	-	-	1
<i>Gallus f. domestic</i>	chicken	-	2	3	6	-	-	11
Unidentified fish		-	9	4	6	-	-	19
Unidentified bird		-	1	-	-	-	-	1
Unidentified		4	101	71	33	2	3	214
Total		5	163	110	102	4	5	389

Table 3. Summary information for the hand-collected shell from excavations on land to the south of North Back Lane, Bridlington.

Key: frag(s) = fragment(s); sp. indet. = species indeterminate; u/s = unstratified

Numbers given in species columns are minimum numbers of individuals.

Phases 3a, 3b and 3c are all medieval (?13th century to early 15th century). Phase 4 is late medieval to early post-medieval (mid 15th to mid 16th century).

Context	Phase	common periwinkle	?dog whelk	common whelk	mussel	oyster	unid	weight (g)	Notes
		<i>Littorina littorea</i> (L.)	? <i>Nucella lapillus</i> (L.)	<i>Buccinum undatum</i> L.	<i>Mytilus edulis</i> L.	<i>Ostrea edulis</i> L.			
1000	u/s	-	-	-	1	-	-	0.6	frag
2000	u/s	1	-	-	-	-	1	6.2	unid = 2 frags of whelk sp. indet.
2004	4	2	-	-	-	-	-	2.9	3 frags
2005	3b	-	-	-	-	-	1	0.5	frag
2007	3c	1	-	-	-	1	-	13.1	oyster = 1 right valve frag with a small ?fresh break
2016	3b	47	1	-	-	-	-	181.5	44 periwinkles + 9 frags
2019	3c	1	-	1	-	-	-	8.5	whelk = large frag
2020	3c	1	-	-	-	1	-	10.5	oyster = 1 very rotted right valve and many mm-flakes
2021	4	1	-	-	-	-	-	2.8	
2025	3c	1	-	-	-	-	-	1.9	several frags
Total		55	1	1	1	2	2	228.5	