

**Biological remains from excavations on the  
site of the Preceptory of the Knights Hospitallers,  
Beverley, N. Humberside (site code BKH91-2)**

[92/21]

by

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**Summary**

A single sample of sediment from a mid 13th century floor and a small assemblage of bone and shell from medieval to modern date were examined. The floor deposit proved to be almost barren of biological remains other than a little charcoal and a small suite of snails of limited interpretative value.

The bone assemblage was too small and too thinly distributed temporally to provide useful archaeozoological information beyond a basic archive.

The larger shells were of marine species likely to have originated in table waste.

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**Biological remains from excavations on the  
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(i) 'Environmental' sample

A single sample was submitted of 'mortary floor surface' (context 33 from the 1992 excavations), dated to the mid 13th century and associated with the second of two timber buildings, part of the Preceptory of the Knights Hospitallers house in Beverley.

After description in the laboratory, two subsamples were taken: a 2 kg 'test' subsample and a 6.25 kg 'bulk-sieving' subsample. Both subsamples were disaggregated following methods of Kenward *et al.* (1980). The clay was very tenacious and repeated soaking in dilute sodium pyrophosphate solution over a period of about three weeks was necessary to complete the process. The former was sieved to 300  $\mu\text{m}$ , the latter to 1 mm. No paraffin flotation for insects was carried out for the 'test' subsample, since it was judged that the organic content of the residue was very small. Instead, a 'washover' was performed for this and for the bulk-sieved subsample and in each case the light fraction decanted off was examined for plant and invertebrate remains. The results were as follows.

**Context 33, Sample 33**

Mottled grey-brown to pale yellow-orange, moist, stiff to slightly crumbly (plastic when worked) sandy clay with angular chalk to 25 mm and a little charcoal.

Subsample /T (2 kg). The washover was small and included a little charcoal, coal and very decayed wood to 10 mm maximum dimension, a little rounded brick/tile to 10 mm, some modern roots and traces of mortar and bone. The only identifiable biological remains were a single (rather fresh) elderberry (*Sambucus nigra*) seed and two snails. The latter were the shade-preferring species *Discus rotundatus* and the freshwater *Anisus leucostoma*. The residue consisted of sand and gravel, including some angular chalk fragments to 10 mm.

Subsample /BS (6.25 kg). The small washover contained a little charcoal to 10 mm, with traces of coal, eggshell, modern roots and rare earthworm egg capsules. The residue was mostly of gravel to 15 mm, including angular chalk, but with several rounded to subangular stones to 50 mm, which appeared to be of very diverse lithology and which may have originated in till in the area. There were a few snails but no other identifiable biological remains. The snails were the catholic species *Cochlicopa lubrica* (1), *Trichia hispida* (3), *Oxychilus alliarius* (2) and the burrowing snail *Cecilioides acicula*. They offer little useful interpretative information.

(ii) Bone

The animal bone assemblage from BKH91 consisted of a small number of fragments from a total of 14 contexts. These fell into three main phases: Period 1, dated to 1201-1540 (eight

contexts), Period 2, dated to 1540-1800 (one context), and Period 3, dated to post-1800 (five contexts).

Retrieval of the assemblage was by hand, resulting in a probable sample bias in favour of the larger species and skeletal elements. The lack of systematic and quantitative wet or dry sieving procedures means that small mammal, bird and fish remains are almost certainly under represented.

## Methodology

All 104 fragments were examined and identified, where possible, to species and skeletal element, by reference to comparative specimens at the Environmental Archaeology Unit, University of York. Preservation and colour were recorded, and evidence of gnawing, butchery and pathology recorded where present. In addition, age at death was recorded by degree of epiphyseal fusion and tooth wear (after Grant 1982). Full lists of species, skeletal elements and tooth wear are presented in Tables 1-3 below.

## Results

Most of the assemblage showed good preservation with little or no evidence of physical or chemical weathering. The material was also of a fairly uniform tan colour, suggesting little contextual disturbance, except for material from context 14 (Period 2) where the presence of bone showing two distinct colour groups suggests the presence of possible residual material.

Of the total of 104 fragments, 76 were positively identified. These were mainly cattle, sheep/goat and pig, together with ten bird and eight human bones. In addition, a single cat pelvis and one red deer second phalanx were recovered (Tables 1 and 2). No positive identifications of goat were made although a horncore was identified as sheep. There were ten teeth in the assemblage: five cattle, one sheep/goat and four pig, showing a range of Grant wear stages from stage F (juvenile), to stage M/N (very worn) (see Table 3). Of the cattle and sheep bones, 13 showed clear signs of butchery in the form of cut and chop marks, whilst charring was noted on a single sheep-sized rib fragment. Additionally, while dog remains were wholly absent in the material from Period 1, a small number of bones from this phase show the characteristic gnawing marks made by dogs.

The human bones from Period 1 consisted of a left patella, a metacarpal and a second phalanx, and there were five other fragments which were also possibly human. The material came from a disturbed burial, and may have originated in a sub-adult or relatively small individual.

Of the ten bird bones, three were identified as goose (*Anser* sp.), four as chicken (*Gallus* sp. domestic), one as turkey (*Meleagris* sp. domestic), and two unidentified further. The remains of geese comprised two tarsometatarsals from Period 1 and a carpometacarpus from Period 2. Those from chicken consisted of a radius from Period 1, a carpometacarpus from Period 2, and a coracoid and tibiotarsus from Period 3. The turkey fragment was identified as pelvis and came from Period 3.

The small quantity of material and its allocation to such broadly dated phases render any statistical and interpretative work of very little value.

### (iii) Shell

The shell from BKH91-2 consisted of whole shells and fragments from a total of ten contexts. These could be grouped into the three periods used for the discussion of bone (see above).

The assemblage was retrieved by hand without any systematic wet or dry sieving, resulting in a probable sample bias in favour of the larger species.

### Methodology

All 42 shells and fragments were examined and identified to species, by reference to comparative specimens at the Environmental Archaeology Unit, University of York. State of preservation was recorded and any evidence for knife opening of the oyster shells recorded where seen. A list of the species is given in Table 4.

### Results

Most of the shell was well preserved. Of the 42 fragments all were positively identified, including the smaller fragments, though these are not included in the species count as they were possibly derived from the larger specimens present. Of the land snails from this hand-collected material, all were *Helix aspersa*, all from contexts of Period 2 date. As *H. aspersa* is common and occurs in a diversity of habitats, they have no value for determination of local environment.

Of the other 38, 30 (80%) were oyster shells, the remainder also being edible marine/estuarine species. Signs of opening with knives were only definitely visible on oyster shells from Periods 1 and 2, in both cases the majority of the shells showing such marks.

The marine taxa are likely to have arrived in food for the table, the garden snails probably living at the site.

### References

Grant, A. (1983). *The use of tooth wear as a guide the age of domestic ungulates*, pp. 91-108 in B. Wilson, C. Grigson and S. Payne (eds.), *Ageing and sexing animal bones from archaeological sites. British Archaeological Reports, British Series 109*. Oxford.

Kenward H. K., Hall A. R. and Jones A. K. G. (1980). A tested set of techniques for the extraction of plant and animal microfossils from waterlogged archaeological deposits. *Science and Archaeology* 22, 3-15.

Table 1. Summary of species present by phase.

Species	Period	1	2nd timber building	2	2/3	3
Cattle ( <i>Bos</i> sp. domestic)		13	2	3	1	2
Sheep/goat ( <i>Ovis/Capra</i> sp. domestic)		7	-	2	1	4
Pig ( <i>Sus</i> sp. domestic)		9	-	1	-	-
Red deer ( <i>Cervus elaphus</i> )		1	-	-	-	-
Cat ( <i>Felis</i> sp. domestic)		-	-	1	-	-
Human ( <i>Homo sapiens</i> )		3+5?	-	-	-	-
<u>Rib/Vertebra</u>						
Cow size		7	-	2	-	-
Sheep size		4	-	2	1	2
<u>Shaft fragments</u>						
Cow size		4	-	2	-	1
Sheep size		5	-	3	-	4
Mammal indet.		2	2	-	1	-
<u>Birds</u>						
Goose sp. ( <i>Anser</i> sp.)		2	-	1	-	-
Domestic fowl ( <i>Gallus</i> sp. domestic)		1	-	1	-	2
Turkey ( <i>Meleagris</i> sp. domestic)		-	-	-	-	1
Bird indet.		-	-	1	-	1

Table 2. List of skeletal elements by phase.

Period 1 and 2nd timber building

Element	Cattle	Sheep /goat	Pig	Red deer
Horncore	1	1	-	-
Skull fragment	1	-	1	-
Mandible + teeth	1+2	1+0	0+1	-
Isolated teeth	2	1	-	-
Atlas	-	-	1	-
Scapula	-	2	-	-
Humerus	1	1	2+1?	-
Radius	1	1	-	-
Ulna	2	-	-	-
Metacarpal	1	-	-	-
Femur	-	-	1	-
Tibia	1	1	-	-
Calcaneus	1	-	-	-
Navicular cuboid	1	-	-	-
Metatarsal	1	-	-	-
Phalanx 2nd	1	-	-	1
Ribs	7	3	-	-
Vertebra	-	2	-	-
Metapodial	2	-	-	-

Period 2

Element	Cattle	Sheep /goat	Pig	Cat
Mandible	1	-	-	-
Radius	-	1	-	-
Pelvis	-	-	-	1
Patella	1	-	-	-
Tibia	1	1	-	-
Calcaneum	-	-	1	-
Rib	1	2	-	-
Vertebra	1	-	-	-
Indet.	2	{ 3 }	-	-

contd.

Period 3

Element	Cattle	Sheep /goat	
Skull fragment	-	-	1 indet.
Mandible	1	1	
Axis	-	1	
Radius	1	-	
Tibia	-	1	
Metatarsal	-	2	
Rib	-	2	

Table 3. List of teeth wear stages.

Period	Species	Element	Grant wear stage	
1	Pig	Mandible	P2	?
			M1	F/G
			M2	E
	Cow	Mandible	M2	K
			M3	J
	Cow	Isolated	M1/2	L
Cow	Isolated	M3	E	
	Sheep/goat	Isolated	M1/2	K
3	Cow	Mandible	M1/2	M/N



Table 4. Hand-collected shell.

Species	Period	1	2nd timber building	2	2/3	3
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Oyster ( <i>Ostrea edulis</i> )						
upper valve		10	1	2	-	1
lower valve		10	-	4	1	1
Edible whelk ( <i>Buccinum undatum</i> )		2	-	1	-	-
Mussel ( <i>Mytilus edulis</i> )		1	-	-	-	-
Common edible cockle ( <i>Cerastoderma edule</i> )		4	-	-	-	-
Land snail ( <i>Helix aspersa</i> )		-	-	4	-	-