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Ancient Monuments Laboratory Report 51/88

THE BIRD BONES FROM HARDENDALE QUARRY, SHAP, CUMBRIA.

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Summary

Bird bones recovered from the excavation of a prehistoric cairn at Hardendale Quarry, Shap, Cumbria were examined. Most of the microfaunal assemblage from the site probably originated in owl pellets. Bird bones formed only a small part of the total assemblage from the site and were mainly of small Passerine species.

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Introduction and archaeological background

A rescue excavation on a cairn at Hardendale Quarry, Shap, Cumbria was carried out in May and June 1986 by the Cumbria and Lancashire Archaeological Unit. Four phases of use were recognised. The earliest remains (Phase 1) consisted of a cist constructed of limestone slabs and containing a single cremation. A layer of limestone gravel about 0.1m thick and rich in remains of snails and small bones lay on top of a mound surrounding the cist. The majority of the bird bones came from this phase. The chronology of the site is tentative but Phases 2 and 3 appear to be Bronze Age. Phase 1 may also be Bronze Age but could be as early as the late Neolithic. Phase 4, a later inhumation phase, is of uncertain date, but may be as late as the Anglo-Saxon period.

The bird assemblage

A total of 260 fragments of bird bone were recovered from 10 contexts. The 'rodent level' (contexts 16 and 19 from Phase 1) contributed the greatest number of fragments. The assemblages from each context were very similar in composition. A list of the species recorded from each context is given in Table 1. The majority of the remains were of small Passerines and most of the remainder were phalanges of various larger species. A high proportion of the bones were fragmentary and many were incompletely ossified (from very young birds) or abraded. As a consequence of this and the lack of suitable reference material, many of the small Passerine bones were not identified to species. Those identified were swallow (Hirundo rustica), starling (Sturnus vulgaris), fieldfare (Turdus pilaris), and at least one other Turdidae species.

The microfaunal assemblage from the site as a whole consisted of nearly 40,000 bones, dominated by field and water vole, and frog and toad. Almost certainly most of this was deposited on the site in owl pellets. Owls swallow their prey whole and therefore bones found in their pellets are largely complete and undamaged. Typically, the cranial part of small mammal skulls is crushed before the prey is swallowed (Mayhew, 1977). Some small mammal skulls showing this sort of damage were present in the Hardendale material (S. Stallibrass, pers. comm.). Some of the mammal and bird bones, however, had a rather abraded appearance which looked like acid etching. This suggests that part of the assemblage could be the remains of prey of one or more of the diurnal raptor species (Falconiformes). These birds can digest bone and any fragments present in their pellets are eroded, particularly at the epiphyses (Mayhew, 1977). The bones are also generally less complete than those in owl pellets since the Falconiformes pull their prey apart with their beaks before swallowing it and may also discard certain parts such as the head. Several claws of a large Falconiform were identified from the rodent level, and a single claw was also recovered from context 14 (Phase 3). They were closely similar to those of buzzard (Buteo buteo) but no reference specimens of similarly sized species were available for comparison. A single claw of a small diurnal raptor, possibly sparrowhawk (Accipiter nisus) was

recorded from context 24 (Phase 1). Bones of small carnivorous mammals (weasel, polecat and cat; S. Stallibrass, pers. comm.) were also present in the assemblage so it is possible that some bones may be the remains of their food.

It is interesting that virtually the only remains of larger birds recovered from the site are phalanges. Crow or rook (<u>Corvus</u> <u>corone</u> or <u>frugilegus</u>), a smaller Corvidae species and black grouse (<u>Lyrurus tetrix</u>) were identified from these, in addition to the two raptor species mentioned above. A very large claw, probably of crane (<u>Grus grus</u>) was also recorded from the rodent level. It is possible that feet of prey species were discarded when a large raptor tore up its prey on the cairn, or perhaps the feet may have been found some distance away by small carnivores and brought back to the cairn.

Several limb bone fragment of a small rail (Rallidae sp.) were reocrded from Phase 1.

Acknowledgments

I am grateful to μ J. H. Williams and Sue Stallibrass for providing information on the archaeology of the site and the composition of the microfaunal assemblage.

Reference

Mayhew, D. F. (1977). Avian predators as accumulators of fossil mammal material. Boreas 6, 25-31.

Table 1

Numbers in brackets give the numbers of incompletely ossified bones included in the total for that species.

<u>Phase 1</u>

Context	Species represented No.	of f	ragments
16	large Falconiform	2	3
ш	Black grouse	2	2
	?Crane	1	
	small non-Passerine sp.	3	3 (1)
	medium sized bird	4	(1)
	large bird	1	
"	Swallow	1	. + ?1
	Starling	3	3
"	Fieldfare	4	
"	Blackbird or ring ouzel	1	
	?Blackbird	1	
	small Passerine spp.	112	2 (15)
	Crow or rook	1	
**	small Corvidae sp.	Ĺ	ł
	indeterminate	12	2 (1)
19	?small Rallidae sp.	1	
п	small Passerine spp.	46	6 (9)
	Crow or rook	1	
"	small Corvidae sp.	1	
	indeterminate	8	3

24 small Falconiform species 1

	Black grouse	2
"	small Passerine spp.	12 (3)
	small Corvidae sp.	1
"	indeterminate	3
25	<pre>small Passerine sp(p).</pre>	2
	?Crow or rook	1
	medium sized bird	1
26	<pre>small Passerine sp(p).</pre>	3
35	small Passerine sp(p).	2
39	small Rallidae sp.	2
п	small Passerine spp.	6 (?1)

Phase <u>3</u>

10	Black grouse	1
	medium sized bird	1
"	small Passerine spp.	4
	indetermiate	4
14	large Falconiform species	1
"	indeterminate	1
17	Black grouse	1
	indeterminate	1

6

Carpometacarpus

GL	Вр	
-	22.2	
90.8	22.1	

Femur

GL	Lm	Sc	Bd
_	_	9.1	-
-	-	8.7	-
-	77.4	9.0	-
-	-	8.5	-
-	-	8.8	20.6
-	76.4	9.3	20.8
	-	_	20.1
-	-	8.5	19.7

Tibiotarsus

La	Dip	Sc	Bd	Dd
_	25.4	8.5	-	-
-	-	8.3	-	-
-	-	8.4	16.9	15.9
-	-	-	17.5	-
-	-	8.3	-	-
-	-	_	17.9	-

Tarsometatarsus

GL	Вр	Sc	Bd
-	_	8.6	_
87.7	19.3	8.2	-
-	-	8.3	-

Emi Alisi Neur, 1988