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The fish bone from Upper Well Street, Coventry: 2004 excavation

by

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Summary

This report presents an analysis of the fish bone recovered from excavations at Upper Well Street, Coventry. Bulk samples produced a small assemblage. Herring and eel were the main species recovered from three contexts dated to the 15th century.

KEYWORDS: COVENTRY; FISH BONES; MEDIEVAL; ZOOARCHAEOLOGY

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The fish bone Upper Well Street, Coventry: 2004 excavation

Introduction

This report is based on analysis of fish bone recovered from excavations in Upper Well Street, Coventry in 2004. A small number (182) of fish bones were recovered from three contexts, dated, by association with pottery, to the 15th century. Thirty-five specimens were identified to species, the majority of which were eel and herring.

Methods

The majority of the fish bone was recovered from bulk samples of three contexts (5023, 5038 and 6003) from excavation area C (Emma Hancox 2004). Samples were processed at the *fishlab*, University of York. All material above 1mm was retained and fish bone from the greater than 2mm and the 2-4mm fractions analysed. A small amount of hand collected material from context 5038 was also included. Given the small size of the assemblage, the fish bones from both methods of recovery are combined in the discussion below.

Recording followed the York protocol as outlined by Harland *et al* 2003. All specimens are counted and weighed and are classified as either 'diagnostic' or 'non-diagnostic' elements. The diagnostic elements are identified to species level where possible and are further divided into three groups; quantification codes 1, 2 and 4. For a suite of 18 QC1 elements, criteria including estimation of fish size, element completeness, bone modification (such as butchery) and metric data are recorded. Unless modified in some way vertebrae (QC2 elements) are not recorded in detail beyond taxonomic identification. Special elements such as otoliths (quantification code 4) are recorded in a similar level of detail as the QC1 elements. Under the York protocol all other (QC0) elements are usually recorded as unidentified. Exceptions to this include specimens of species present in the assemblage but not represented by diagnostic elements. For all quantification codes the number of burnt specimens is recorded. A list of Latin and common names for all taxa in the assemblage is included in appendix 1.

The complete archive has been submitted to the Birmingham University Field Archaeology Unit with this report, as a Microsoft Access database file and a series of text files which duplicate its content. A copy of the archive will also be kept on file at the University of York.

Preservation

Due to the small size of the Upper Well Street assemblage, only a cursory note can be made on the preservation of the material. Five burnt specimens were recorded from contexts 5038 and 6003. From the same contexts three vertebrae had been crushed whilst the bone was fresh, likely to have been caused either by mastication or trampling. One specimen, a plaice or flounder premaxilla, had a surface texture characteristic of partial digestion (Wheeler and Jones 1989). The same specimen is also small in size, less than 300mm estimated total length, and may be eel gut content (discussed below). Insufficient QC1 elements were recorded to allow comment on

element completeness and surface texture. All data discussed above is presented in table 1.

Taxonomic abundance and element representation

A total of 182 specimens, of which 35 were identified, were recovered from the three contexts analysed (table 2). Eel and herring were present in all contexts, in addition, either plaice or flounder was represented in context 5023 by a single specimen, and in context 5038 by two vertebrae. All elements recorded were vertebrae, with the exception of an eel dentary and parasphenoid, herring maxilla and flounder or plaice premaxilla. Based on comparison with reference material these elements are from small sized fish of less than 300mm in total length. In addition to the identified diagnostic elements, fins rays (an element not typically recorded in the York protocol) of fish belonging to the cod family were also noted in context 5038.

Discussion

Although the assemblage from Upper Well Street is small, both marine taxa and taxa that inhabitat the sea and freshwater are represented. Based on the small size of the eel and flounder or plaice specimens it is likely that these fish were caught in freshwater, and further, that the flatfish is most likely to be flounder rather than plaice. Eels are a catadromous species, the young mature in freshwater accessible from the sea, and the small specimens from the site are consistent with this stage. The flounder is a marine species, although it can survive in freshwater and is commonly found in estuaries. Young (and therefore small) fish are also known to move up the estuaries into rivers (Maitland and Campbell 1992). The plaice, however, does not have the same freshwater range, and is primarily restricted to the sea. In addition to this, small flounder are the fish mostly commonly eaten by estuarine eels, and it is conceivable, in light of the partially digested premaxilla, that the specimens from Upper Well Street are eel gut content. It seems likely that the eel (and possibly therefore flounder) was not caught locally and like the herring and cod family fish were imported.

Acknowledgements

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References

Hancox, E. 2004. *The Salvation Army, Upper Well Street, Coventry: An Archaeological Excavation 2004*. Birmingham University Field Archaeology Unit

Harland, J. F., J. H. Barrett, J. Carrott, K. Dobney, and D. Jaques. 2003. The York System: An integrated zooarchaeological database for research and teaching. *Internet Archaeology* 13:http://intarch.ac.uk/journal/issue13/harland_index.html

Maitland, P.S and Campbell, R.N. 1993. *Freshwater Fishes*. London: Harper Collins

Wheeler, A. and Jones, A.K.G. 1989. *Fishes*. Cambridge: Cambridge University Press

Table 1. Bone preservation by context

	5023	5038	6003	total
Burning (all specimens)				
Unburned	16	143	18	177
Burned white			1	1
Burned black		2	2	4
Other modification (all specimens)				
crushed		2	1	3
digested	1			1
Element completeness (QC1 elements only)				
0-20%		1		1
81-100%	1	2		3
Surface texture (QC1 elements only)*				
excellent	1	2		3
fair		1		1

*Assessment of surface texture based on the following criteria (Harland *et al* 2003) :
excellent - majority of surface fresh or even slightly glossy; very localized flaky or powdery patches.
fair - surface solid in places, but flaky or powdery on upto 49% of specimen.

Table 2. Number of identified specimens and element representation

taxon	element	5023	5038	6003	total
eel	dentary		1		1
	parasphenoid		1		1
	abdominal vertebra	3	8		11
	caudal vertebra		6		6
	vertebra		1	1	2
Atlantic herring	abdominal vertebra	1	4		5
	caudal vertebra		2	2	4
	maxilla		1		1
	vertebra		1		1
cod family	'non-diagnostic'		present		
plaice or flounder	premaxilla	1			1
	abdominal vertebra		1		
	caudal vertebra		1		
	total diagnostic	5	27	3	35
unidentified fish		11	118	18	147
	total fish	16	145	21	182

Table 3. Estimated fish total length (based on comparison with reference specimens of known length)

size	taxon	5023	5038
151-300mm	eel		2
	Atlantic herring		2
	plaice or flounder	1	

Appendix 1. Common and latin names of taxa mentioned in the text

Common name	Latin name
eel	*Anguilla anguilla*
Atlantic herring	*Clupea harengus*
cod family	Gadidae
flounder or plaice	*Pleuronectes flesus/Pleuronectes platessa*