7.5 Animal bone from MRDUN13

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Authors note: This report outlines the basic nature of the assemblage of animal bones found during the excavation of St Dunstan's Church in Monks Risborough, Buckinghamshire. A more detailed account of the animal bones will be found in Reid V Dissertation December 19th. A copy of this can be obtained by emailing the author at victoria.reid.10@aberdeen.ac.uk.

Introduction

The majority of the animal bones excavated at St Dunstan's were from undated layers. However, the period of occupation that is most represented at this site through zooarchaeological evidence is from the late 11th to 12th Centuries. Unfortunately the general dating of the site does not provide an accurate date for the bones in the contexts that lacked other artefacts, therefore are of little interpretive value to the site as a whole. In addition, all material was hand collected and no quantitative recovery was undertaken during the excavation. Therefore, the assemblage whilst being small and poorly preserved is likely to underrepresent small mammals, birds and fish. Thus, any comparisons of the relative frequency of the major domestic species being utilised during each period may be biased in favour of the larger species.

A total of 1748 fragments were examined. Of these 2% were Iron Age, 2% were Roman, 3% dated to the 5-9th centuries, 1% dated to 10th –middle 11th century, 7% date to the middle to late 11th century, 15% from late 11th to 12th century,7% date from 12th century, with a further 14% from early to middle 13th century and 3% dating from Roman to 13th Century, with a further 44% of fragments from undated contexts. The limited assemblage size will impact on the interpretation of the site; some contexts are only represented by a few bones as seen in Table 7.5.1. Therefore, it would be beneficial to compare this site to others in the local landscape to answer questions such as - were they using the same cattle as other sites in the area? Is there anything that stands out in this zooarchaeological assemblage compared with others?

Table 7.5.1: Bone fragments itemised by period

Iron Age	Roman	5th-9th Century	10th to mid 11th Century	Mid to late 11th Century
31	30	44	14	128

Late 11th to 12th Century	12th Century	Early to mid 13th Century	Prehistory to 11th Century	Roman to 13th Century
267	123	248	13	56

Preservation

All bones were badly fragmented and not complete, therefore the data set has its limitations. Not surprisingly loose teeth, which survive better in adverse conditions due to their high enamel content and structure, were one of the most common elements recovered. In consequence, a large proportion of the bones examined were merely small unidentifiable fragments. It can be seen in Table 7.5.2 that the majority of the assemblage was not identifiable.

Many of the bones showed evidence of fresh breaks and scratches, which may be explained by the presence of valuable volunteers with little experience in excavation, and the methods in which bone is to be treated to avoid such issues with fragile bones. The washing compared with dry brushing of the bones after excavation will have damaged the integrity, thus, increasing the fragility of the bones despite how long they were left to dry.

The assemblage consists of heavily weathered or taphonomically altered bones with some evidence of cut marks and gnawing (see Reid, V. Dissertation Dec 2013).

Methodology

Fragmented bones were examined not only as a single entity but with the intention of fitting fragments together, but with so few intact bones present, the final element totals may be distorted. It is important to recognise this bias in order to ensure the validity of the data.

The identifiable bone was assessed based on what elements, species, side of the animal it came from, if there has been fusion and any taphonomic or anthropogenic actions that can be inferred from the bone. They were measured using the recognised system devised by Angela Von Den Driesch 1976 to ensure a standardised approach to the analysis.

Table 7.5.2 Bone fragment frequency for all contexts

	001	003	009	011	019	021	022	023
Cow	97	0	0	0	1	0	0	4
Sheep	148	1	1	0	2	1	5	6
Pig	85	0	6	0	1	0	0	6
Bird	0	0	2	0	0	0	0	0
Fragments	125	0	72	10	18	4	23	74

	025	029	030	032	033	037	040	051
Cow	6	5	4	1	1	0	1	1
Sheep	7	0	0	1	6	1	0	6
Pig	6	0	0	1	0	0	0	11
Bird	0	2	0	0	4	0	0	9
Fragments	66	42	9	13	18	2	8	99

	052	053	055	065	066	070	072	075
Cow	0	0	0	1	0	1	0	9
Sheep	0	0	0	0	1	6	0	2
Pig	0	0	0	0	0	2	0	3
Bird	0	0	0	0	0	0	0	0
Fragments	3	3	4	19	1	25	7	42

Table 7.5.2 continued…..

	077	079	083	090	097	112	113	114
Cow	2	0	0	2	0	0	0	0
Sheep	3	0	1	1	0	1	0	1
Pig	1	1	0	0	0	0	1	0
Bird	0	0	0	0	0	0	0	0
Fragments	30	5	8	5	3	2	4	1

	118	120	123	125	129	130	132	134
Cow	4	0	0	0	4	11	0	0
Sheep	1	1	0	0	1	1	1	0
Pig	1	0	0	0	0	1	0	0
Bird	0	0	0	1	1	0	0	0
Fragments	27	6	10	3	24	65	2	24

	140	143	144	145	149	150	151	161
Cow	5	3	0	0	1	4	0	0
Sheep	8	1	0	0	1	0	0	1
Pig	6	0	0	0	1	0	0	0
Bird	0	0	0	0	0	0	0	0
Fragments	32	6	2	4	2	9	6	8

	166	170	171	173	175	177	181	186
Cow	0	0	0	0	0	0	0	6
Sheep	0	0	0	0	0	0	2	4
Pig	0	0	1	0	0	1	2	2
Bird	0	0	0	0	0	0	0	0
Horse	0	0	0	0	0	9	0	0
Fragments	13	7	13	4	16	6	5	17

	188	191	198	202	205	211	212	217
Cow	1	0	0	0	0	0	0	0
Sheep	2	1	1	1	0	0	1	0
Pig	1	2	0	0	0	1	0	0
Bird	0	0	0	0	0	0	0	0
Fragments	18	15	3	1	12	2	5	1

	219	225	227	238	243	258	260	268
Cow	0	0	6	1	0	0	1	1
Sheep	2	0	0	0	0	0	1	0
Pig	0	0	0	0	0	0	0	1
Bird	0	0	0	0	0	0	0	0
Fragments	0	2	10	0	4	4	6	6

	276	285
Cow	0	0
Sheep	0	1
Pig	0	1
Bird	0	0
Fragments	5	8

Species fragment frequency

In most periods, the most frequently identified fragments were from common domestic species, with the absence of wild species.

Bone weight

The weight of the bone recorded from each species gives an idea of the proportion of meat available in each period. This is a method outlined by Uerpmann (2010), who also highlights the problems in using this method with zooarchaeological data. In particular it is important to note that species variation may affect proportion of meat to bone. This is something that will be investigated further in dissertation.

Further work

The dissertation will look at the biometry of the data, which is the analysis of the assemblage using mathematical and statistical methods. It will also look at ageing, butchery and other information that bone can tell us about the practices during the periods represented in the assemblage. These aspects will be investigated in an attempt to put the site at Monks Risborough into a wider geographical context. From this we can identify the similarities or differences such as cattle size and ascertain status.

Conclusions

Archaeological bone provides a very rich data set that, if examined in a systematic and repeatable way, can provide a wealth of information. It can inform us about butchery and consumption practices, status, and also gives us a more informed insight into life within the period it is derived from - in a similar way that residue analysis in pottery can provide a more detailed picture than mute artefacts.

References

Uerpmann, H. P. 1973. *Animal bone finds and economic archaeology: A Critical Study of 'Osteo-archaeological' method*, World Archaeology, 4:3, 307-322

Von Den Driesch, A. 1977. *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Cambridge United States: Peabody Museum Harvard University Press. 1-135.