North Worcestershire Archaeology Group

Olivers Mound, Shrawley, Worcestershire.

Phases 1, 2, & 3 Animal Bone Report.

No. 100:5001

WSM 48065

NGR: 8133 6547

October 2010

Oliver's Mound – Medieval Castle, Shrawley, Worcestershire

Phase I, II, and III.

Animal Bone Report.

Contents

1. Animal Bone Report – Oliver's Mound phase I - by Sheila Hamilton-Dyer

1.1.1. Introduction and Methodology

Fieldwalking and excavation of 2 trenches recovered a small assemblage of animal bones. In total 132 individual bones were made available for analysis. Taxonomic identifications were made using the author's modern comparative collections. All fragments were identified to species and element with the following exceptions: ribs and vertebrae of the ungulates (other than axis, atlas, and sacrum) were identified only to the level of cattle/horse-sized and sheep/pig-sized. Unidentified shaft and other fragments were similarly divided. Any fragments that could not be assigned even to this level have been recorded as mammalian only. Where possible sheep and goat were separated using the methods of Boessneck (1969), Payne (1985) and Halstead & Collins (2002). Recently broken bones were joined where possible and have been counted as single specimens. Tooth eruption and wear stages of cattle, sheep and pig mandibles were recorded following Grant (1982). Measurements follow von den Driesch (1976) and are in millimetres unless otherwise stated. The archive includes details of metrical and other data not presented in the text.

1.1.2. Results

The majority of the bones (98 of 132) are from 11 stratified contexts; the remaining 34 bones were from unstratified deposits. Most of these closely resemble the stratified material. The condition of the bone is mixed, varying from poor to excellent. Most of the bones can be identified to broad taxon. The majority can be identified as cattle, sheep/goat and pig. Most if not all the indeterminate fragments are also likely to be of these taxa. In total, nine different taxa are present; besides cattle, sheep/goat and pig there is one bone of horse, one of roe buck, four of fallow and 17 of birds. No dog bones were recovered but several bones show indirect evidence in the form of gnaw marks. A summary table of the taxa distribution is given in Table 1.

Bones of cattle are the most common and were found in most contexts. All areas of the body are represented but most of the bones are elements of the foot. Butchery marks were observed on several bones, both from jointing and from meat removal. Several of the indeterminate (but probably cattle) vertebrae and ribs had also been chopped. Sheep and goat bones are notoriously difficult to separate; in the 11 ovicaprid bones found, one could be positively identified as sheep but the others are undiagnostic. Most are limb bones and some of these also have butchery marks. Pig is represented by 12 bones and loose teeth. One of the teeth is a canine that can be identified as being from an adult sow; other remains include those of immature pigs. The single horse bone is from the ankle.

Roe buck is represented by a modified antler; it has been cut off just above the bur, the side tine and tip have been removed and this part whittled to a point (photo). When held in the hand it forms a comfortable tool, which may have been used for scribing, perhaps for leather. Because this antler is cut above the bur, it is not possible to tell whether it was collected loose after shedding or taken from a carcase. The fallow remains are all metapodia (foot bones) and must have been from carcases. One is a metatarsus (hind foot), the other three are metacarpals (fore foot). These have no meat value and would have been discarded when the carcase was trimmed, either when killed or later on in the kitchen.

The 17 bird bones could not all be identified but are mainly of domestic fowl (10) with two of goose and one of duck. Domestic goose and duck are difficult to separate from their wild progenitors, greylag and mallard. These bones are judged to be probably from domestic birds, based on the size of the bones. Three of the indeterminate bird bones are small shaft fragments, the other is a large rib probably of goose. Two of the fowl bones have cut marks; on a humerus and a tibiotarsus, this last indicates where the foot was cut off.

The sample here is too small to draw any firm conclusions but the mix of bones is typical of medieval material in general. The high proportion of bird and the presence of several deer bones in a small collection is, however, likely to be significant. The amount of these is usually higher in castle and other ‘high status’ sites. Interestingly several castle sites show a preponderance of hind leg bones from deer, which has been

suggested as indicating a deliberate selection and supply of prime joints (Albarella & Davis 1996). This site has more front feet, and the cattle bones are mainly of the lower value feet too. A much larger assemblage from this site might confirm whether this is a true reflection of the anatomical distribution or is a statistical artefact of a small sample size.

1.1.3 References

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Payne S. (1985) Morphological distinctions between the mandibular teeth of young sheep, *Ovis*, and goats, *Capra*. Journal of Archaeological Science, **12**, London, p 139-147

1.2. Tabulated Results:

1.2.1. Species Total

1.2.2. DATA

1.2.3. Species Codes

1.2.4. Anatomy Codes

Context	horse	cattle	sheep/ goat	pig	fallow	roe	cattle-size	sheep/ pig-size	indet. mammal	fowl	goose	duck	indet. bird	Total		birds	deer
1\002	-	-	-	-	1	-	-	-	-	-	-	1	-	2		1	1
1\003	-	7	4	6	-	1	7	9	4	2	2	-	-	42		4	1
1\004	-	-	-	1	-	-	-	-	-	-	-	-	-	1		0	0
1\006	-	1	-	-	-	-	2	-	-	-	-	-	-	3		0	0
1\008	-	-	2	1	1	-	3	5	-	-	-	-	-	12		0	1
1\013	-	-	-	2	-	-	2	1	2	-	-	-	-	7		0	0
1\u/s	-	2	2	-	-	-	6	6	3	8	-	-	4	31		12	0
2\002	-	2	-	-	-	-	-	-	1	-	-	-	-	3		0	0
2\004	-	1	2	-	-	-	1	1	-	-	-	-	-	5		0	0
2\005	1	2	-	-	-	-	2	-	-	-	-	-	-	5		0	0
2\006	-	5	1	1	2	-	4	2	-	-	-	-	-	15		0	2
2\009	-	1	-	1	-	-	-	-	1	-	-	-	-	3		0	0
2\u/s	-	2	-	-	-	-	-	-	-	-	-	-	-	2		0	0
u/s fieldwalk	-	-	-	-	-	-	1	-	-	-	-	-	-	1		0	0
Total	1	23	11	12	4	1	28	24	11	10	2	1	4	132		17	5
percent	*0.8*	*17.4*	*8.3*	*9.1*	*3.0*	*0.8*	*21.2*	*18.2*	*8.3*	*7.6*	*1.5*	*0.8*	*3.0*			*12.9*	*3.8*
% identified	*1.5*	*35.4*	*16.9*	*18.5*	*6.2*	*1.5*				*15.4*	*3.1*	*1.5*		65		*26.2*	*7.7*
% cattle, sheep, pig		*50.0*	*23.9*	*26.1*										46			

1.2.1. Species Total

Record	SITE	Context	Count	Species	Element	Side	SHD cod	%	Size	PROX	DIST	Poros	BUTCH	GRANT	Frag	Burn	Ivori	Gnaw	CONI	comments	GL	Bp	BFp	SD	Bd	Dd	BFd
5	OMS08	1\002	1	ANA P/D	HUM	R	MP0	40	2						Y												
4	OMS08	1\002	1	FALLOW	MT		MF	5	2											OR POSSIBLY VERY SMALL RED							
78	OMS08	1\008	1	COW	CAL	R	MT	50	3				MG&OFF					C1									
82	OMS08	1\008	1	COW	CUB	R	W9	95	2										R1								
91	OMS08	1\008	1	COW	JAW	L	AS0	5	2						Y												
88	OMS08	1\008	1	COW	PH1		W70	75	2	F					Y				R1Y	FLAKEY							
94	OMS08	1\008	1	COW	PH1		MT	50	3	F			SPLIT														
98	OMS08	1\008	1	COW	PH2		W	98	2	F								C1									
88	OMS08	1\008	1	COW	RAD		MT0	20	4				SPIRAL		Y												
111	OMS08	1\008	1	FOW	HUM	R	W	98	3			H	K**MB							SLIGHTLY IMMATURE	74	19.5		6.9	15.9		
112	OMS08	1\008	1	FOW	HUM	L	PM	50	2			H								PAIR		19.5					
84	OMS08	1\008	1	GOO	CMC	L	DM	75	3			H															
81	OMS08	1\008	1	GOO	TMT	L	MD	50	3											LARGE							
106	OMS08	1\008	1	LAR	FRAG		M		2								Y										
80	OMS08	1\008	1	LAR	LFRAG		MT		3								Y										
89	OMS08	1\008	1	LAR	RIB		MT	5	2																		
95	OMS08	1\008	1	LAR	RIB		M	40	5				C_CH*				Y										
96	OMS08	1\008	1	LAR	RIB		P0	10	2						Y												
85	OMS08	1\008	1	LAR	VL		M	60	3	J	U		CHT					C1									
86	OMS08	1\008	1	LAR	VT		S	10	3				CHT														
76	OMS08	1\008	3	MAM	FRAG				2																		
102	OMS08	1\008	1	MAM	FRAG		MT		2							Y				SMALL CALCINED FRAG							
97	OMS08	1\008	1	PIG	FIB	L	DM7	75	4		U																
79	OMS08	1\008	1	PIG	HUM	R	MD	80	3				C_SPIRALMF				Y	C1									
100	OMS08	1\008	1	PIG	HUM	L	MD	50	3				KR*MDF					C1									
90	OMS08	1\008	1	PIG	JAW	R	M	10	2					....A2													
98	OMS08	1\008	1	PIG	TIB	L	M	25	3									C1									
99	OMS08	1\008	1	PIG	UM		W	95	2					ADULT													
113	OMS08	1\008	1	ROE	ANT		W7	75	4											WORKED, CHOP WHITTLED OFF BASE AND SHAPED AT TIP, BG LEATHER SCRIBING TOOL?							
107	OMS08	1\008	1	S/G	HUM	L	MDB	20	3								Y	C1									
77	OMS08	1\008	1	S/G	JAW		MT0	15	2						Y												
92	OMS08	1\008	1	S/G	SCA	R	MA	10	3				CH*M														
108	OMS08	1\008	1	S/G	TIB	L	DF	10	2		F						Y	C1									
87	OMS08	1\008	1	SAR	LFRAG		MT		3									C1									
109	OMS08	1\008	2	SAR	LFRAG		MT		2																		
110	OMS08	1\008	1	SAR	LFRAG		MT		2								Y										
103	OMS08	1\008	1	SAR	RIB		M	80	3								Y	C1									
104	OMS08	1\008	2	SAR	RIB		M	15	2								Y	C1									
105	OMS08	1\008	1	SAR	RIB		M	15	2																		
101	OMS08	1\008	1	SAR	VT		M	80	2		U		CH*M														
9	OMS08	1\004	1	PIG	SCA	L	M	88	3									C1									
37	OMS08	1\006	1	COW	RAD	L	PMB	20	3	F			SPLIT									80.5	74.5				
36	OMS08	1\006	2	LAR	LFRAG		MT0		2							Y				CALCINED PROB ONE BONE							
29	OMS08	1\008	1	FALLOW	MC	L	PMF	80	4																		
22	OMS08	1\008	1	LAR	LFRAG		MT		2																		
24	OMS08	1\008	1	LAR	RIB		M0	40	5						Y				R1	COW, IN 3 PIECES							
26	OMS08	1\008	1	LAR	SCA		M	5	3				CH*							PROB COW							
28	OMS08	1\008	1	PIG	LC	L	W9	95	2											SEXF							
21	OMS08	1\008	1	S/G	TIB		M	15	2										R1								
25	OMS08	1\008	3	SAR	LFRAG		MT0		2										R1								
23	OMS08	1\008	1	SAR	RIB		M	50	3											S/G							
27	OMS08	1\008	1	SAR	RIB		M	80	2											PIG							
20	OMS08	1\008	1	SHE	RAD	R	PM	20	2	F			CH*PJ_C_CH**MPE				Y	C1		LARGE, NOT SAME PRESERV AS REST		36.5	32.3				
33	OMS08	1\013	1	LAR	LFRAG		MT		2																		
32	OMS08	1\013	1	LAR	RIB		M	20	3											COW							

1.2.2. /1 DATA

Recor	SITE	Context	Count	Species	Element	Side	SHD co	%	Size	PRO	DIST	Porc	BUTCH	GRANT	Frag	Burn	Ivori	Gnaw	COND	comments	GL	Bp	BFp	SD	Bd	Dd	BFd
35	OMS 08	1\013	2	MAM	FRAG		MT0		2										R1	ALSO 1 PIECE SANDSTONE							
30	OMS 08	1\013	1	PIG	JAW	R	M	10	3											ADULT BUT NO TEETH PRESENT							
31	OMS 08	1\013	1	PIG	JAW	L	MAV	10	3																		
34	OMS 08	1\013	1	SAR	LFRAG		MT		2								Y			PROB S/G HUM OR FEM							
72	OMS 08	1\U/S	3	BIR	LFRAG		MT		2																		
69	OMS 08	1\U/S	1	BIR	RIB		W	75	3								Y			GOOSE SIZE							
66	OMS 08	1\U/S	1	COW	HUM	L	MT	10	3				SPIRAL				Y										
62	OMS 08	1\U/S	1	COW	PH2		W	98	2	F							Y										
74	OMS 08	1\U/S	1	FOW	OC	R	NM	40	3																		
73	OMS 08	1\U/S	1	FOW	SYNSAC		A	15	2																		
70	OMS 08	1\U/S	1	FOW	TIB	R	DM7	75	3				K+DB				Y			SMALL				4.8	9.1		
71	OMS 08	1\U/S	1	FOW	TMT	L	W9	90	3			H															
75	OMS 08	1\U/S	4	FOW	VT		W	90	2																		
65	OMS 08	1\U/S	1	LAR	LFRAG		MT		2								Y										
54	OMS 08	1\U/S	3	LAR	RIB		M	40	5				C,CH*														
55	OMS 08	1\U/S	1	LAR	RIB		M	20	3				CH*				Y										
63	OMS 08	1\U/S	1	LAR	VX		M	50	2	U	U		MG&OFF														
61	OMS 08	1\U/S	1	MAM	FRAG		MT		2									C2		DIGESTED							
68	OMS 08	1\U/S	2	MAM	FRAG		MT		2																		
64	OMS 08	1\U/S	1	S/G	MT		MB	20	3				SPLIT				Y										
67	OMS 08	1\U/S	1	S/G	PH1		P	30	2	U								C1		DIGESTED?							
60	OMS 08	1\U/S	2	SAR	LFRAG		MT		2								Y	C1									
56	OMS 08	1\U/S	1	SAR	RIB		M	40	3				CH*				Y	C1									
57	OMS 08	1\U/S	1	SAR	RIB		M	50	3																		
58	OMS 08	1\U/S	1	SAR	RIB		M	10	2								Y	C1									
59	OMS 08	1\U/S	1	SAR	VT		S	10	2																		
8	OMS 08	2\002	1	COW	PH1		W	98	3	F																	
7	OMS 08	2\002	1	COW	PH3		W	98	3																		
6	OMS 08	2\002	1	MAM	FRAG		MT0		2										R1								
10	OMS 08	2\004	1	COW	JAW	R	AS0	10	4						Y				R1K	POOR, IN 3 PIECES							
14	OMS 08	2\004	1	LAR	LFRAG		MT0		2						Y				R1K								
11	OMS 08	2\004	1	S/G	FEM		PE0	5	2						Y				R1K								
12	OMS 08	2\004	1	S/G	MC		M0	20	2						Y				R2K								
13	OMS 08	2\004	1	SAR	LFRAG		MT0		2						Y				R1K								
16	OMS 08	2\005	1	COW	FEM	R	MDB0	20	3						Y			C1	R1K								
15	OMS 08	2\005	1	COW	PH1		W90	85	3	F					Y				R1K								
19	OMS 08	2\005	1	HOR	AST	L	W90	85	3						Y						58.5						51.5
17	OMS 08	2\005	1	LAR	LFRAG		MT		2																		
18	OMS 08	2\005	1	LAR	LFRAG		MT0		2						Y				R1K								
39	OMS 08	2\006	1	COW	AST	R	M70	60	2						Y				R1K								
40	OMS 08	2\006	1	COW	CAL	L	M	75	3										R1K								
47	OMS 08	2\006	1	COW	JAW	L	M0	75	5					X.WFKKG	Y				R1K	FLAKEY WITH MANY FRAGS							
42	OMS 08	2\006	1	COW	OC	L	PM0	20	4						Y				R1K								
41	OMS 08	2\006	1	COW	ULN	R	M	15	3						Y				R1K								
49	OMS 08	2\006	1	FALLOW	MC	R	DM0	20	3		F				Y				R1K								
50	OMS 08	2\006	1	FALLOW	MC	L	M70	75	5						Y				R1K								
48	OMS 08	2\006	3	LAR	FRAG		MT0		2						Y				R1K								
43	OMS 08	2\006	1	LAR	LFRAG		MT0		3						Y				R1K	POOR IN SEVERAL FRAGS							
38	OMS 08	2\006	1	PIG	LM0		M0	50	2						Y				R1K								
44	OMS 08	2\006	1	S/G	OC	R	MP0	15	3	F					Y												
45	OMS 08	2\006	1	SAR	RIB		P	15	2											PIG							
46	OMS 08	2\006	1	SAR	VT		M0	30	2	U	U				Y				R1K								
1	OMS 08	2\009	1	COW	UM	R	M0	50	2						Y				R1K								
3	OMS 08	2\009	1	MAM	FRAG		MT0		2						Y				R1K								
2	OMS 08	2\009	1	PIG	JAW	R	M0	25	3					...F...	Y												
52	OMS 08	2\U/S	1	COW	MT	L	DM0	40	4		F				Y				R1K								
53	OMS 08	2\U/S	1	COW	PH3		P0	15	2						Y				R1K								
51	OMS 08	U/S	1	LAR	LFRAG		MT		3				K+														

1.2.2. /2 DATA

Common name	Species
horse	HOR
cattle	COW
sheep/goat	S/G
sheep	SHE
pig	PIG
fallow deer	FALLOW
roe	ROE
large mammal, cattle-sized	LAR
large mammal, sheep/pig sized	SAR
mammal, indeterminate	MAM
goose, graylag/domestic	GOO
domestic fowl	FOW
duck, mallard/domestic	ANA P/D
bird, indeterminate	BIR

1.2.3. Species Codes

SCA	scapula
COR	coracoid
FURC	furcula
OC	pelvis
FEM	femur
TIB	tibia/tibiotarsus
MC	metacarpus
CMC	carpometacarpus
MT	metatarsus
TMT	tarsometatarsus
AST	astragalus
CAL	calcaneum
CUB	cuboid/centroquartal
PH1	phalanx 1
PH2	phalanx 2
PH3	phalanx 3
VT	thoracic vertebra
VL	lumbar vertebra
VX	vertebra not assigned
RIB	rib
LFRAG	limb shaft fragment
FRAG	fragment

1.2.4 Anatomy Codes

2. Animal Bone Report – phases II & III – by Sylvia Warman

2.1.1. Introduction and Methodology

Animal bone was recovered during Phase 2 excavations in 2009 from Trenches 3, 4, 6, 7, 8, 9 and 10. Animal bone from a single Phase 3 context (012) is also included. A total of 464 fragments of animal bone were recovered and are reported on (Table 1). All fragments were identified to species and element with the following exceptions: ribs and vertebrae of the ungulates (other than axis, atlas, and sacrum) were identified only to the level of cattle/horse-sized and sheep/pig-sized. Unidentified shaft and other fragments were similarly divided. Any fragments that could not be assigned to this level have been recorded as mammalian only. Taxonomic identifications were made using the author's modern comparative collections and those at University of London Institute of Archaeology. Recently broken bones were joined where possible and have been counted as single specimens. Tooth eruption and wear stages of cattle, sheep and pig mandibles were recorded following Grant (1982). Estimation of age at death was also made using epiphyseal fusion of long bones following Silver (1969) Measurements follow von den Driesch (1976) and are in millimetres unless otherwise stated. The archive includes details of metrical and other data not presented in the text. Animal bone from the Phase 1 excavations has previously been reported on by Hamiton-Dyer (2008).

2.1.2. Results

The assemblage totals 464 bones of which 156 were identified to species. The majority of the bones are from 21 stratified contexts, these are thought to be mostly medieval in date (late 12th to mid 14th centuries) although a brief period of post-medieval activity associated with the English Civil War is also recorded (Sproat, in Clarke 2010).The remainder of the animal bones were from unstratified deposits. The animal bone from the unstratified deposits closely resembles the stratified material. The condition of the bone is mixed, varying from moderate to excellent. The species identified were; cattle, sheep/goat, pig, dog, deer (red, roe and fallow), badger, hare, hare/rabbit, goose, and domestic fowl. More fragmented material was classified by size as large mammal (cow-sized), large mammal (sheep/pig sized) and small mammal (dog/cat sized). Some identified bird and fish bone fragments were also present in the assemblage.

Cattle

Cattle make up over half of the identified bones (Table 1). It is the most numerous of the domestic stock species with a wide range of elements present including meat-bearing bones. Most cattle bones were from fully adult animals, with a few sub-adults and juveniles present. Butchery is evident on many of the limb bones, with the shafts chopped through. Dog gnawing is noted occasionally particularly on ankle bones. No mandibles were sufficiently well preserved to enable dental ageing methods to be used.

Pig

Pig is the second most numerous of the domestic mammals but only contributes 13% of the identified bones (Table 1). The pig remains are predominantly jaws teeth and skull fragments, although hind limb and forelimb bones are also present. The evidence from tooth eruption and wear suggests both adults and sub-adults are present. The dentition specifically the canine teeth indicate that both male and female animals are present within the assemblage. The limb bones present also enabled estimates of age-at-death based on epiphyseal fusion. The fusion data indicated that mostly individuals were juvenile or sub-adult in contrast with the dental data. Taken together the age at death information suggests pigs were killed at a range of different ages presumably for a range of different pork products. Gnawing by dogs was occasionally seen on pig limb bone fragments.

Sheep/goat

This taxon made up a surprisingly small part of the identified assemblage at just 7% (Table 1). The sheep/goat assemblage comprised meat-bearing limb bones with very little cranial material. Epiphysis fusion indicates a mixture of adult and sub-adult animals. The presence of a restricted range of body parts largely meat-bearing limbs bones is consistent with the import of joints of meat or dressed carcasses rather than live animals. Gnawing by dogs was occasionally seen on sheep/goat limb bones. Evidence of butchery was rare.

Sheep

A small number of specimens (7) were positively identified as sheep rather than sheep/goat. These comprised, a tibia, a skull fragment some metapodials and a phalange. Considered with the sheep/goat material the range of body parts increases with metapodials and toes now present; but the bulk of the material remains the meat-bearing limb bones. The sheep specimens were aged using epiphyseal fusion; with sub-adult and adult specimens present.

Dog

Just two dog specimens are present, a skull and a mandible. The advanced tooth wear seen on the teeth within the mandible is consistent with an aged individual.

Domestic Birds

Chicken bones make up just one percent of the identified assemblage. The elements present are largely meat-bearing ones as well as a single phalange. A single goose bone was identified, a humerus from deposit 7/003 a soil horizon. The unidentified bird bones total just six from the whole assemblage.

Deer

Three deer species are potentially present red, roe and fallow. The red deer specimens comprise antler, skull and a pelvis fragment. The latter is very weathered and within a post-medieval deposit thus the possibility that it has been redeposited from an earlier layer must be considered. A single specimen a mandible identified as Roe deer was recovered from deposit 4/003. Fallow deer which is generally accepted as a Norman introduction was the most numerous of the deer species (6% of the identified assemblage) and bones were present in deposits of potentially medieval, post-medieval and modern date. This species shows a wider range of elements present but is dominated by ankle and foot bones peripheral to the carcass

as well as a single tooth. One bone, a metatarsal from deposit 4/002 had been chopped vertically, consistent with the butchery practise associated with the extraction of marrow.

Leporid

A single toe bone identified as hare was recovered from deposit 7/002, a rubble deposit. In addition, bones identified as leporid (rabbit/hare), were recovered from deposits of medieval and modern date. These comprised both cranial elements and meat-bearing limb bones, although no evidence of butchery was observed.

Badger

A single specimen a humerus from deposit 6/003, a loose gravel spread.

Unidentified large mammal cattle-sized (LAR)

This category accounts for almost 40% of the assemblage and is likely to comprise cattle, horse and red deer.

Unidentified large mammal sheep/pig sized (SAR)

This category accounts from 16% of the assemblage and is likely to be composed of pig, sheep, goat, fallow and roe deer. The elements present are mostly limb shaft fragments and ribs although vertebra and skull fragments are also present.

Unidentified small mammal dog/cat sized.

Just two vertebrae were identified to this category from deposits 7/002 and 7/005.

Fish

A single unidentified fish bone was recovered from deposit 7/002. More fish bones would be expected from a medieval assemblage, but the lack of sampling may account for this.

Unidentified mammal bone

A small amount of bone was so fragmented that identification could not be taken beyond mammal. This accounted for 9 % of the assemblage (Table 1).

2.1.3 Discussion

The assemblage is assumed to be largely medieval in date, but the historic records of Civil War activity at the site and the early excavations by the Mastermans are at least two known periods of disturbance, with redeposition of disturbed medieval material very likely. For the purposes of this report the group of bones is treated as a single assemblage.

The assemblage is dominated by cattle which accounts for 69% of the domestic stock bones identified to species. The presence of a range of body parts including both meat-bearing and non-meat-bearing elements suggests cattle arrived as livestock rather than joints or carcasses and were butchered and consumed on site. The next most numerous livestock species is pig; which comprises both meat-bearing limb bones and skulls and mandibles with just a few peripheral elements from the lower limb and foot. Pigs, it could be argued, are most likely to have arrived as either dressed carcasses or live animals. Taking both epiphyseal fusion data and tooth eruption and wear into account; the age at death for pigs is from 2–3.5 years. This suggests that animals were not killed until they had achieved maximum meat-weight. Sheep and sheep/goat make up a small part of the assemblage less than 5% even when considered together. The restricted range of elements seen – largely meat-bearing long bones is consist with the import of joints of lamb/mutton as required rather than the live animals or dressed carcasses. None of the domestic stock species include very young animals so there is no evidence for the rearing or breeding of livestock at the site.

The two dog specimens are the only examples of this species in the entire assemblage. The heavily worn teeth in the mandible from deposit 4/002 suggest this was an animal of advanced age, or that the animal had an extremely abrasive diet. Dogs would be expected in a medieval assemblage such as this, having been used both as hunting dogs and companion animals. The skull and mandible are both quite large consistent with a hound rather than a terrier or lap-dog.

The fallow deer bones are largely from the head and feet with very few meat-bearing bones present. For this species bones from both the forelimb and hind limb are present with a slightly higher proportion of hind limb bones, this contrasts with the results from the Phase 1 excavations where the forelimb was more common (Hamilton-Dyer 2008). A larger assemblage of fallow deer would be expected at high status site such as this. This species was a Norman introduction and by the time of the main period of occupation at the castle, would be been extensively hunted by the nobility. Thus the remains do not reflect that expected for consumption of venison but may reflect butchery or the import of skins with peripheral elements still attached. If feasting on prime cuts of venison was taking place at the castle, the food waste must have been discarded elsewhere. The red deer assemblage is not consistent with consumption on site, the lack of foot bones suggests it is not the result of on-site butchery, or the import of skins with heads and toes attached. Little can be said about the exploitation of roe deer as it is represented by a single specimen, a mandible.

Goose and chicken are present in small numbers of largely meat-bearing bones, suggesting they made some contribution to the diet. The lack of bones from the head and feet might suggest that dressed carcasses were brought in rather than the birds having been dispatched on site. However the lack of these smaller, more fragile bones could be due to the fact the assemblage was entirely hand-collected with no bulk samples taken. It is striking that no other bird species are present in the Phase 2 assemblage. The Phase 1 assemblage included duck (Hamilton-Dyer 2008). A medieval assemblage from a castle site normally contain a range of wild fowl as well.

2.1.4. Summary

The animal bone assemblage is broadly consistent with what would be expected from a medieval high status site such as this. The lack of any new born domestic stock is consistent with a consumer rather than producer assemblage which is what would be expected at a castle. Cattle were the main source of meat consumed at the castle, whilst the body parts within the pig assemblage are consistent with the consumption of whole spit-roasted pigs. Sheep/goat contributes quite a small amount of meat, likely to have been brought in as joints. The assemblage includes some species which might be indicative of high status such as fallow deer but not in great numbers. Venison it appears was not consumed at the site, although there is limited evidence for the butchery of fallow deer on-site. The Phase 2 assemblage displays many similarities with the smaller assemblage from the Phase 1 excavations (Hamilton-Dyer 2008) as well as some differences, for example fallow deer show a greater proportion of hind limb bones in Phase 2 whilst forelimbs predominate in Phase 1. The Phase 2 assemblage lacks many other species than would be expected at higher status sites, particularly wild birds.

2.1.5. References

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2.2. Tabulated Results:

2.2.1. Results Table

2.2.2. Results by possible periods

2.2.3. Results Table with possible periods

2.2.4. Element Codes

2.2.5. Species Code

2.2.6. Animal Bone Data

Sum of Count	Species																			
Context	BAD	BIR	COW	DOG	FALLOW	FIS	FOW	GOO	HAR	LAR	LEP	MAM	PIG	RED	ROE	S/G	SAR	SHE	VSAR	Grand Total
10/001			1		1					5						1	5			13
10/002							2			2										4
3/002										1							1	1		3
3/004			1							2										3
3/005										2				2						4
4/001			1							5							3			9
4/002			10	1	2		1			21		2	2			2	7	1		49
4/003		1	7		1		2			25		10	4		1	1	13			65
4/004			1		1					11				2			12			27
4/009		1	1																	2
4/US													1							1
6/002			9							12			3				2	1		27
6/003	1	1	21		3					21			1	1		2	4	3		58
7/002		1	7		1	1			1	29		6	2			1	15	1	1	66
7/003		1	3	1				1		11		1				2	3			23
7/004			3							3			2				4			12
7/005		1	2		1					4	1	1							1	11
8/001											1									1
8/002			1								2									3
8/003											2									2
9/002			10							18		12	3			2	5			50
9/US			1										1	1						3
US										2			1							3
THE WELL CONTEXT 12			5				1			7		11					1			25
Grand Total	**1**	**6**	**84**	**2**	**10**	**1**	**6**	**1**	**1**	**181**	**6**	**43**	**20**	**6**	**1**	**11**	**75**	**7**	**2**	**464**
percent	**0.2**	**1.3**	**18.1**	**0.4**	**2.2**	**0.2**	**1.3**	**0.2**	**0.2**	**39**	**1.3**	**9.3**	**4.3**	**1.3**	**0.2**	**2.4**	**16.2**	**1.5**	**0.4**	**100**
percent identified	**0.6**	**3.8**	**53.8**	**1.3**	**6.4**	**0.6**	**3.8**	**0.6**	**0.6**	**116**	**3.8**	**27.6**	**12.8**	**3.8**	**0.6**	**7.1**	**48.1**	**4.5**	**1.3**	**156**
percent cattle sheep pig			**68.9**										**16.4**			**9**		**5.7**		**122**

2.2.1. Results Table by possible Periods

Medieval

Context	BIR	COW	DOG	FALLOW	FOW	GOO	LAR	LEP	MAM	PIG	RED	ROE	S/G	SAR	SHE	VSAR	Grand Total
4/002		10	1	2	1		21		2	2			2	7	1		49
4/003	1	7		1	2		25		10	4		1	1	13			65
4/004		1		1			11				2			12			27
4/009	1	1															2
7/003	1	3	1			1	11		1				2	3			23
7/004		3					3			2				4			12
7/005	1	2		1			4	1	1							1	11
	4	27	2	5	3	1	75	1	14	8	2	1	5	39	1	1	189

Post-medieval

Context	BAD	BIR	COW	FALLOW	FIS	FOW	HAR	LAR	MAM	PIG	RED	S/G	SAR	SHE	VSAR	Grand Total
6/002			9					12		3			2	1		27
6/003	1	1	21	3				21		1	1	2	4	3		58
7/002		1	7	1	1		1	29	6	2		1	15	1	1	66
9/002			10					18	12	3		2	5			50
THE WELL CONTEXT 12			5			1		7	11				1			25
	1	2	52	4	1	1	1	87	29	9	1	5	27	5	1	226

Modern

Context	COW	FALLOW	FOW	LAR	LEP	PIG	RED	S/G	SAR	SHE	Grand Total
10/001	1	1		5				1	5		13
10/002			2	2							4
3/002				1					1	1	3
3/004	1			2							3
3/005				2			2				4
4/001	1			5					3		9
4/US						1					1
8/001					1						1
8/002	1				2						3
8/003					2						2
9/US	1					1	1				3
US				2		1					3
	5	1	2	19	5	3	3	1	9	1	49

2.2.2. Results by possible Periods

Sum of Count	Spe s																			
Context	BAD	BIR	COW	DOG	FALLOW	FIS	FOW	GOO	HAR	LAR	LEP	MAM	PIG	RED	ROE	S/G	SAR	SHE	VSAR	Grand Total
10/001			1		1					5						1	5			13
10/002							2			2										4
3/002										1							1	1		3
3/004			1							2										3
3/005										2				2						4
4/001			1							5							3			9
4/002			10	1	2		1			21		2	2			2	7	1		49
4/003		1	7		1		2			25		10	4		1	1	13			65
4/004			1		1					11				2			12			27
4/009		1	1																	2
4/US													1							1
6/002			9							12			3				2	1		27
6/003	1	1	21		3					21			1	1		2	4	3		58
7/002		1	7		1	1			1	29		6	2			1	15	1	1	66
7/003		1	3	1				1		11		1				2	3			23
7/004			3							3			2				4			12
7/005		1	2		1					4	1	1							1	11
8/001											1									1
8/002			1								2									3
8/003											2									2
9/002			10							18		12	3			2	5			50
9/US			1										1	1						3
US										2			1							3
THE WELL CONTEXT 12			5				1			7		11					1			25
Grand Total	1	6	84	2	10	1	6	1	1	181	6	43	20	6	1	11	75	7	2	464
percent	0.2	1.3	18.1	0.4	2.2	0.2	1.3	0.2	0.2	39	1.3	9.3	4.3	1.3	0.2	2.4	16.2	1.5	0.4	100
percent identified	0.6	3.8	53.8	1.3	6.4	0.6	3.8	0.6	0.6	116	3.8	27.6	12.8	3.8	0.6	7.1	48.1	4.5	1.3	156
percent cattle sheep pig			68.9										16.4			9		5.7		122

	medieval
	post-medieval
	modern

2.2.3. Results Table with possible Periods

Element Codes	Anatomy
SKL	skull
ANT	antler
JAW	mandible
LM	lower molar
LPM	lower premolar
LC	lower canine
LI	lower incisor
UM	upper molar
UPM	upper premolar
HUM	humerus
RAD	radius
ULN	ulna
R+U	radius+ulna
SCA	scapula
COR	coracoid
FURC	furcula
OC	pelvis
FEM	femur
TIB	tibia/tibiotarsus
MC	metacarpus
MC4	4th metacarpus
CMC	carpometacarpus
MT	metatarsus
MP	metapodial
TMT	tarsometatarsus
AST	astragalus
CAL	calcaneum
CUB	cuboid/centroquartal
TAR	tarsal
C/T	carpal or tarsal
PH1	phalanx 1
PH2	phalanx 2
PH3	phalanx 3
PH	phalange
VAT	atlas
VC	cervical vertebra
VT	thoracic vertebra
VL	lumbar vertebra
VX	vertebra not assigned
RIB	rib
LFRAG	limb shaft fragment
FRAG	fragment

2.2.4. Element Codes

Common name	Species
cattle	COW
sheep/goat	S/G
sheep	SHE
pig	PIG
red deer	RED
fallow deer	FALLOW
roe	ROE
dog	DOG
badger	BAD
hare	HAR
rabbit/hare	LEP
large mammal, cattle-sized	LAR
large mammal, sheep/pig size	SAR
small mammal, dog/cat size	VSAR
mammal, indeterminate	MAM
goose, graylag/domestic	GOO
domestic fowl	FOW
bird, indeterminate	BIR
fish, indeterminate	FIS

2.2.5. Species Codes

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
167	OMS	6/003	1	BAD	HUM	L	D	30	3		F		SPIRAL							BADGER DISTAL HUMERUS BROKEN SHAFT POSSIBLE								
300	OMS	7/005	1	BIR	COR	U	M	30	3											PROB CHICKEN BU DIAGS								
168	OMS	6/003	1	BIR	HUM	R	M	65	3											HUMERUS FROM SMALL BIRD DIAG AREAS MISSING								
142	OMS	4/009	1	BIR	LFRAG	U	M	10	3											LONG FRAG OF LB								
214	OMS	7/002	1	BIR	LFRAG	U	M	20	2										R1									
266	OMS	7/003	1	BIR	LFRAG	U	M	4	3																			
76	OMS	4/003	1	BIR	TIB	U	M	15	3											SHAFT FRAG NOT DIAG								
351	OMS	THE WELL CONTEXT 12	1	COW	AST	R	D	45	4											ASTAGALUS								
145	OMS	6/002	1	COW	AST	U	M	30	3											FRAG OF ASTRAG MOD DAMAGE								
169	OMS	6/003	1	COW	AST	L	W	100	4																			
267	OMS	7/003	1	COW	AST	R	W	100	4											COMPLETE								
146	OMS	6/002	1	COW	CAL	L	M	65	4	U									C1 P	CAL WITHOUT EPIPH								
288	OMS	7/004	1	COW	CAL	R	W	100	4	F										COMPLETE								
215	OMS	7/002	1	COW	CAL	L	W9	80	4						Y 5PCS				C2 P	MODERN BREAK								
268	OMS	7/003	1	COW	CAL	R	W9	80	4	U									C2 P	UNFUSED PROX BUT ALSO								
317	OMS	9/002	1	COW	CAL	R	W9	75	4	U									R1	UNFUSED SOME MODERN DMAMAGE								
125	OMS	4/004	1	COW	CAR	R	W	100	3											SEMI LUNAR CARPAL								
30	OMS	4/002	1	COW	CAR	R	W	100	3											GRAND CUNI								
170	OMS	6/003	1	COW	FEM	R	M	55	5				H							CAN'T SEE FUSION BUT QUITE POROUS PROB J OR SA								
216	OMS	7/002	1	COW	FEM	L	M	10	4				H							SHAFT FRAG SPLIT VERT								
289	OMS	7/004	1	COW	FEM	R	M	40	5				H						C1 D	CHOPPED ALSO MOD BREAK								
318	OMS	9/002	1	COW	HUM	L	D M	55	5		F								R1	MOD BREAK TO SHAFT AND DISTAL END								
218	OMS	7/002	1	COW	JAW	L	M	40	5											NO TEETH BUT SOCKETS								
217	OMS	7/002	1	COW	JAW	L	P	15	4				C							CHECK AREA M3 SOCKET VISIBLE CHOPPED								
301	OMS	7/005	1	COW	JAW	L	P	30	5										R1	CHEEK AND ARTIC WITH SKULL PLUS DISTAL LOBE OF M3 SOCKET								
31	OMS	4/002	1	COW	JAW	L	P	5	3											ANTERIOR PART OF MANDIBLE WITH SOCKETS FOR INCISORS								
302	OMS	7/005	1	COW	JAW	R	V	15	5				H							VENTRAL FRAG RUNING LENGTH OF TOOTH ROW HAS BEEN CHOPPED RIGHT THROUGH SO NO SOCKETS LEFT								
352	OMS	THE WELL CONTEXT 12	1	COW	LM	R	W9	90	4											SINGLE M1 OR M2 WORN								
171	OMS	6/003	1	COW	MC	R	D	25	4		F		H							SHAFT CHOPPED THROUGH								
353	OMS	THE WELL CONTEXT 12	1	COW	MC	R	P	35	5	F					Y					PROXIMAL METACARPAL								
32	OMS	4/002	1	COW	MC	L	P M	75	5									C3 D		CAN'T TELL IF FUSED DISTAL DUE TO GNAWING								
77	OMS	4/003	1	COW	MP	U	M	10	3							WHITE/ BLACK				MID SHAFT FRAG BURNT								
147	OMS	6/002	1	COW	MT	U	M	35	4									C2 P	R3	SHAFT V WEATHERED ALSO MOD BREAK								
143	OMS	4/009	1	COW	MT	U	P	20	3						Y 2PCS	BLACK/WHITE				BURNT MT PROX END IN 2 PCS								
319	OMS	9/002	1	COW	MT	R	P	35	4	F										MODERN BREAK TO SHAFT								
172	OMS	6/003	1	COW	MT	R	P M	75	5	F									R3	VERY WEATHERED CAN'T SEE DIST FUSION DUE TO MOD BREAK								
148	OMS	6/002	1	COW	OC	L	M	10	3				C							FRAG OF ISHIUM AND PUBIS MOD BREAK								
173	OMS	6/003	1	COW	OC	L	M	35	4				H							CHOPPED THROUGH PROX ALSO MOD BREAKS								
320	OMS	9/002	1	COW	OC	U	M	5	3											FRAGMENT OF ACETABULUM								
149	OMS	6/002	1	COW	PH1	U	M	70	4	F										MOD BREAK PROX								
78	OMS	4/003	1	COW	PH1	U	W	100	3											CHIPPED DISTAL SO NOT								
321	OMS	9/002	1	COW	PH2	U	M	55	3	F										MODERN BREAK								
219	OMS	7/002	1	COW	PH2	U	W9	85	3	F					Y 2PCS					MODERN DAMAGE								
1	OMS	10/001	1	COW	PH3	U	W	100	4																			
79	OMS	4/003	1	COW	PH3	U	W	100	3																			
220	OMS	7/002	1	COW	PH3	U	W9	90	4											MODERN CHIPPED								
33	OMS	4/002	1	COW	R+U	R	P	45	5			R2	H							SHAFT CHOPPED THROUGH								
322	OMS	9/002	1	COW	RAD	L	M	35	4				H							RADIUS PROXIMAL SHAFT								
22	OMS	4/001	1	COW	RAD	L	P	5	4	F										PART OF PROXIMAL ARTICULATION WITH MODERN								
34	OMS	4/002	1	COW	RAD	R	P	45	5				H							RADIUS ARTICS WITH ULNA NEXT SPEC SHAFT CHOPPED TROUGH								
80	OMS	4/003	1	COW	RAD	L	P	40	5	F			H							PROX RADIUS SHAFT CHOPPED THROUGH								

2.2.6. /1 Animal Bone Data

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
174	OMS	6/003	1	COW	RAD	R	P	30	5				H						R2	CHOPED VERTICALLY ALSO WEATHERED								
221	OMS	7/002	1	COW	RAD	L	P	25	4	F			H							PROX RAD SHAFT CHOPPED THROUGH								
354	OMS	THE WELL CONTEXT 12	1	COW	RAD	L	P	35	5	F			H		Y 2 PCS			C2 P		CHOPPED RIGHT THOUGH SHAFT, GNAWED AT PROX END								
81	OMS	4/003	1	COW	SCA	R	M	25	5									C2 D		CENTRE OF BLADE AND SPINE DOG GNAWED DISTALLY								
82	OMS	4/003	1	COW	SCA	U	M	15	4											FRAG OF SCAPULA A WITH SPINE								
175	OMS	6/003	1	COW	SCA	R	P	10	4	F			H							ARTIC AND PART OF NECK								
323	OMS	9/002	1	COW	SCA	U	P	5	4											JUST GELNOID MODERN BREAKS								
150	OMS	6/002	1	COW	SKL	B	BASE	15	4						2 PCS					CATTLE SKULL								
178	OMS	6/003	1	COW	SKL	L	L	2	3											PART OF LACYMAL BONE 2								
180	OMS	6/003	1	COW	SKL	L	L	5	3											PART OF TEMPORAL BONE								
181	OMS	6/003	1	COW	SKL	R	L	4	4											PART OF RIGHT MAXILLA WITH SOCKETS								
183	OMS	6/003	1	COW	SKL	R	L	10	4											MAXILLA WITH M2 M3 BOTH								
35	OMS	4/002	2	COW	SKL	U	M	5	3											FRAGS OF NASAL BONE WITH MOD BREAKS								
177	OMS	6/003	1	COW	SKL	B	M	5	3											2 FRAGS OF BASAL PART MOD BREAK								
179	OMS	6/003	1	COW	SKL	L	M	3	3											FRAG OF PALATE								
182	OMS	6/003	1	COW	SKL	R	M	5	4											RIGHT NASAL BONE								
176	OMS	6/003	1	COW	SKL	B	P	10	5											RIGHT AND LEFT NASAL BONES NOT FUSED BUT REFIT								
184	OMS	6/003	1	COW	SKL	U	P	5	4											FLAT FRAGS OF SKULL FRONTAL OR TEMP/MAX								
151	OMS	6/002	1	COW	SKL	R		4	3											TEMPORAL FRAG								
312	OMS	8/002	1	COW	TAR	R	W	100	4											SCAPHO-CUBOID								
324	OMS	9/002	1	COW	TAR	R	W	100	4											SCAPHO-CUBOID								
269	OMS	7/003	1	COW	TAR	R	W9	95	4											SCAPHO-CUBOID MOD DAMAGE SLIGHT CHIP								
83	OMS	4/003	1	COW	TIB	L	D	35	4		U									DISTAL TIB UNFUSED SHAFT SMASHED BUT NOT OBVIOUSLY CHOPPED								
355	OMS	THE WELL CONTEXT 12	1	COW	TIB	R	D	30	5		F	H								DISTAL TIBIA SHAFT CHOPPED THROUGH								
36	OMS	4/002	1	COW	TIB	R	P	30	5	F					H					PROX TIB SHAFT CHOPPED THROUGH								
153	OMS	6/002	1	COW	ULN	U	D	15	3											SMALL FRAG OF DISTAL SHAFT								
152	OMS	6/002	1	COW	ULN	L	M	20	4				K					C2 P		CUT MARK ALSO MOD BREAKS								
37	OMS	4/002	1	COW	ULN	R	P M	40	5				C							CHOPPED P AND D								
187	OMS	6/003	1	COW	UM	U	CRN	65	3											UPPER MOALR IN WEAR								
325	OMS	9/002	2	COW	UM	L	M	55	3											2 UPPER MOLAR BOTH WITH ROOTS MISSING AND UPPER SURFACE OF CROWN MISSING SO CAN'T EST WEAR								
185	OMS	6/003	1	COW	UM	L	W	100	3											UPPER MOLAR ONLY JUST IN								
38	OMS	4/002	1	COW	UM	U	W9	75	3											SOME DAMAGE TO TIPS OF ROOTS CROWN IN WEAR								
186	OMS	6/003	1	COW	UM	N	W9	80	3											PROB M1 V HEAVILY WORN								
188	OMS	6/003	1	COW	UPM	L	W	100	3											P3 OR P4								
189	OMS	6/003	1	COW	UPM	R	W	100	3											P2 OR P3 IN WEAR								
290	OMS	7/004	1	COW	UPM	L	W	100	3											UPPER P2 WORN								
348	OMS	9/US	1	COW	UPM	L	W	100	3											UPPER P2 OR P3 WORN								
16	OMS	3/004	1	COW	VAT	L	L	50	4	F	F									LEFT HALF OF ATLAS								
39	OMS	4/002	1	DOG	JAW	L	W9	80	4											SMALL INDI CARNASSIAL AND MOLAR EXTREMELY WORN - V OLD? CHECK HILSON								
270	OMS	7/003	1	DOG	SKL	R	L	15	4											RIGHT MAXILLA WITH P2 P4 M1 AND M2 PRESENT BUT NOT								
40	OMS	4/002	1	FALLOW	AST	L	W	100	3											ASTRAGAULS								
2	OMS	10/001	1	FALLOW	CAL	L	W	100	4	F								C1		POSSIBLE DOG TOOTH MUCTURE MARKS AORUND HEAD								
126	OMS	4/004	1	FALLOW	CAL	R	W9	80	4	U										UNFUSED PROX BUT ALSO MOD BREAK								
190	OMS	6/003	1	FALLOW	MC	R	P M	70	5	F	U									SOME DAMAGE TO DISTAL END MOD DMADGE VENTRAL								
303	OMS	7/005	1	FALLOW	MP	U	D	15	4		U									1/2 OF DISTAL SHAFT UNFUSED								
222	OMS	7/002	1	FALLOW	MT	L	D	35	4		F									MOD BREAK TO SHAFT								
41	OMS	4/002	1	FALLOW	MT	R	P M	45	5				H							CHOPPED VERT								

2.2.6 /2 Animal Bone Data

RecordID	SITE	Context	Count	Species	Element	Side	SHDcode	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
191	OMS	6/003	1	FALLOW	MT	L	W	99	5	F	F									COMPLETE APART FROM SMALL CHIP DISTAL DEF MEASURABLE	216	25		15.1	28.6	18		
192	OMS	6/003	1	FALLOW	RAD	R	P M	70	5	F								C2 D										
84	OMS	4/003	1	FALLOW	UM	R	W	100	2																			
223	OMS	7/002	1	FIS																FISH BONE - NOT IDENTIFIED								
85	OMS	4/003	1	FOW	COR	R	W9	95	3																			
10	OMS	10/002	1	FOW	FEM	R	M D	55	4											MODERN BREAK								
11	OMS	10/002	1	FOW	HUM	L	M D	70	4																			
356	OMS	THE WELL CONTEXT 12	1	FOW	HUM	R	W9	95	5											ADULT HUMERUS								
86	OMS	4/003	1	FOW	PH	U	W	100	2																			
42	OMS	4/002	1	FOW	ULN	R	W9	85	4											BUT MOST OF PROX ARTIC								
271	OMS	7/003	1	GOO	HUM	R	P	10	3																			
224	OMS	7/002	1	HAR	PH1	U	W	100	2											HARE								
326	OMS	9/002	1	LAR	C/T	U	M	45	3											FRAMENT OF CARPAL OR								
327	OMS	9/002	1	LAR	FEM	U	D	5	3											PART OF ONE CONDYLE MODERN BREAK								
43	OMS	4/002	1	LAR	FEM	R	M	20	4				H					C2 D		SHAFT CHOPPED THROUG GNAWED DISTALLY PROB COW AS FOSSA IS SHALLOW								
304	OMS	7/005	1	LAR	FEM	U	P	10	4											PROX FEM								
87	OMS	4/003	3	LAR	FRAG	U	F		3											FRAGMENTS OF COW SIZED FLAT BONE								
225	OMS	7/002	1	LAR	FRAG	U	F	3	4			C								POSS SCAP SPINE OR PART OF VERT								
226	OMS	7/002	1	LAR	FRAG	U	F	3	4											POSSIBLY PART OF MANDIBLE								
227	OMS	7/002	1	LAR	FRAG	U	F	3	3			C								FLAT BONE FRAG PART OF MAND OR PELVIS?								
17	OMS	3/004	1	LAR	FRAG	U		5	2											SMALL FRAG OF COWSIZED BONE								
44	OMS	4/002	1	LAR	FRAG	U														POTENTIALLY MANDIBLE FRAG								
45	OMS	4/002	1	LAR	FRAG	U														UNID								
46	OMS	4/002	1	LAR	FRAG	U														FLAT BONE FRAG								
228	OMS	7/002	4	LAR	FRAG	U		5	4											FRAGS OF FLAT BONE CSZ								
272	OMS	7/003	1	LAR	HUM	L	D	25	4		U	C			Y 2PCS			C2 D		DISTAL SHAFT UNFUSED ALSO GNAWED								
193	OMS	6/003	1	LAR	HUM	U	M	25	4			H						C1 P	HT	CHOPPED MID SHAFT MOD BREAK PROX ALSO ROOT								
194	OMS	6/003	1	LAR	HUM	U	P	5	4	F										FRAG OF PROX ARTIC								
229	OMS	7/002	1	LAR	JAW	U	P	10	4			C						C2 P		CHEEK AREA SOME GNAWING								
273	OMS	7/003	1	LAR	JAW	U	P	5	4											CHEEK AREA MOD BREAK								
195	OMS	6/003	1	LAR	JAW	U	V	10	4											VENTRAL PART								
234	OMS	7/002	1	LAR	LFRAG	U	F	1	2											SMALL FRAG MOD BREAK								
360	OMS	THE WELL CONTEXT 12	1	LAR	LFRAG	I	F	2	3						Y					SMALL FRAGMENT OF LONG								
361	OMS	THE WELL CONTEXT 12	1	LAR	LFRAG	I	F	15	3						Y					FRAGMENT OF CARPAL OR								
12	OMS	10/002	2	LAR	LFRAG	U	M	20	5				H							LONG BONE FRAGMENTS SPLIT VERTICALLY								
19	OMS	3/005	1	LAR	LFRAG	U	M	10	3											FRAG OF CSZ LB WITH MODERN BREAKS								
20	OMS	3/005	1	LAR	LFRAG	U	M	20	4				W							WORKED BONE PROB CSZ MTP CHAFR SMOOTH FROM USE AT OP ROUGHER LOWER DOWN ? TEXTILE TOOL?								
47	OMS	4/002	1	LAR	LFRAG	U	M	15	3											6 FRAGS OF CSZ LB WITH FREQUENT MOD BREAKS								6
48	OMS	4/002	1	LAR	LFRAG	U	M	10	4				H					C1 D		CSZ LB HAS BEEN CHOPPED RIGHT THROUHG ALSO DGO								
49	OMS	4/002	1	LAR	LFRAG	U	M	5	4				H							SHAFT CHOPPED THROUGH								
50	OMS	4/002	1	LAR	LFRAG	U	M	10	4				H							COW SIZED LONG BONE CHOPPED THROUGH								
51	OMS	4/002	1	LAR	LFRAG	U	M	15	4						Y 2 PCS					IN 2 PCS MOD BREAK								
52	OMS	4/002	2	LAR	LFRAG	U	M	10	4											2 FRAGS OF CSZ LB WITH MODERN BREAKS								
53	OMS	4/002	1	LAR	LFRAG	U	M	10	4											MOD BREAK EITHER DISTAL HUM OR PROX CALC								
54	OMS	4/002	2	LAR	LFRAG	U	M	5	3											2 FRAGS WITH MOD BREAKS								
55	OMS	4/002	1	LAR	LFRAG	U	M	2	2											FRAG OF LB POSS FEM WITH MOD BREAK								
88	OMS	4/003	1	LAR	LFRAG	U	M	5	4				C							LONG BONE FRAG CHOPPED								
89	OMS	4/003	1	LAR	LFRAG	U	M	2	2											SMALL FRAG MODERN BREAK								
90	OMS	4/003	1	LAR	LFRAG	U	M	4	3											SMALL FRAG ANC BREAK								
91	OMS	4/003	1	LAR	LFRAG	U	M	5	4				H							FRAG OF LONG BONE SHAFT CHOPPED VERT								
92	OMS	4/003	1	LAR	LFRAG	U	M	10	4				H							CHOPPPED								

2.2.6. /4 Animal Bone Data

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
93	OMS	4/003	1	LAR	LFRAG	U	M	10	3				H							SHAFT FRAG CHOPPED								
95	OMS	4/003	5	LAR	LFRAG	U	M	5	3				C															
96	OMS	4/003	1	LAR	LFRAG	U	M	5	2				C							FRAG OF LONG BONE CHOPEPD								
97	OMS	4/003	1	LAR	LFRAG	U	M		3																			
127	OMS	4/004	1	LAR	LFRAG	U	M	15	4				H							LONG BONE FRAG SPLIT VERTICALLY								
128	OMS	4/004	1	LAR	LFRAG	U	M	5	3				C							CHOPED FRAGS OF LB								
129	OMS	4/004	1	LAR	LFRAG	U	M	5	3				C							POSSIBLYPELVIS								
130	OMS	4/004	2	LAR	LFRAG	U	M	3	3											FRAGS WITH MOD BREAKS								
131	OMS	4/004	3	LAR	LFRAG	U	M	3	2											SMALL FRAGS OF LB								
154	OMS	6/002	2	LAR	LFRAG	U	M	5	4				C							CHOPPED UP L;B FRAGS								
155	OMS	6/002	1	LAR	LFRAG	U	M	10	4				C						R2	MOD DAMAGE								
196	OMS	6/003	1	LAR	LFRAG	U	M	15	4				H,C							CHOPPED TRHOUGH AND MULTIPLE CHOP MARKS								
197	OMS	6/003	1	LAR	LFRAG	U	M	5	3				C						R1	ALSO MOD BREAK								
198	OMS	6/003	1	LAR	LFRAG	U	M	5	3				C							CHOPED UP LONG BONE FRAGS								
199	OMS	6/003	1	LAR	LFRAG	U	M	5	4			C								CHOPPED UP FRAG OF LONG								
230	OMS	7/002	1	LAR	LFRAG	U	M	5	4			H								CHOPPED FRAG OF LB								
231	OMS	7/002	1	LAR	LFRAG	U	M	10	4			C			Y 3PCS					IN 3 PCS DUE TO MOD BREAKS								
232	OMS	7/002	1	LAR	LFRAG	U	M	5	4			C								CHOPPED FRAG OF LB								
233	OMS	7/002	1	LAR	LFRAG	U	M	4	4			C																
235	OMS	7/002	3	LAR	LFRAG	U	M	5	3			C								CHOPPED UP 3 FRAGS								
236	OMS	7/002	1	LAR	LFRAG	U	M	3	3																			
274	OMS	7/003	2	LAR	LFRAG	U	M	5	4			C								LONG BONE FRAGS CHOPPED								
275	OMS	7/003	1	LAR	LFRAG	U	M	5	4			H							R2	CHOPPED THROUGH ALSO WEATHERED								
276	OMS	7/003	1	LAR	LFRAG	U	M	10	4			H								LONG BONE FRAGMANET CHOPPED THROUGH								
291	OMS	7/004	1	LAR	LFRAG	U	M	3	2			C								ALSO MOD BREAKS								
305	OMS	7/005	1	LAR	LFRAG	U	M		2																			
306	OMS	7/005	1	LAR	LFRAG	U	M	4	3																			
328	OMS	9/002	1	LAR	LFRAG	U	M	5	3				C							LONG BOEN FRAGMANETS MODERN BREAKS								
329	OMS	9/002	1	LAR	LFRAG	U	M	3	2											FRAGMENT OF SPONGEY BONE								
330	OMS	9/002	2	LAR	LFRAG	U	M	3	2																			
331	OMS	9/002	1	LAR	LFRAG	U	M	4	4				C															
332	OMS	9/002	7	LAR	LFRAG	U	M	5	3				C							LONG BOEN FRAGMENTS MODERN BREAKS								
357	OMS	THE WELL CONTEXT 12	1	LAR	LFRAG	I	M	15	5						Y					SHAFT FRAGMENT ALSO ROOT ETCHED								
358	OMS	THE WELL CONTEXT 12	1	LAR	LFRAG	I	M	10	5			H			Y					CHOPPED THROUGH AND MODERN BREAK AT OTHER END								
359	OMS	THE WELL CONTEXT 12	1	LAR	LFRAG	I	M	5	4						Y					MODERN BREAK								
366	OMS	US	2	LAR	LFRAG	U	M	5	3			C								FRAGMENTS OF CHOPPED UP LONG BONE								
94	OMS	4/003	1	LAR	LFRAG	U	P	5	3									C2 P		POSSIBLY HUMERUS HEAD SMALL FRAG OF								
277	OMS	7/003	1	LAR	LFRAG	U		3	3																			
56	OMS	4/002	1	LAR	OC	U	P	5	3									C1 P		ILUIM UPPER PART PROB COW GNAWED SLIGHTLY								
158	OMS	6/002	1	LAR	RIB	U	D	15	4				K							KNIFE CUTS TRANSVERSE								
3	OMS	10/001	3	LAR	RIB	U	M	15	4																			
4	OMS	10/001	1	LAR	RIB	U	M	25	5									C1 D										
5	OMS	10/001	1	LAR	RIB	U	M	10	4																			
13	OMS	3/002	1	LAR	RIB	U	M	30	4			M							R2	FLAKEY								
18	OMS	3/004	1	LAR	RIB	U	M	20	3			HT								RIB FRAG WITH MODERN BREAKS								
23	OMS	4/001	1	LAR	RIB	U	M	10	4											RIB FRAGMENT WITH MOD								
24	OMS	4/001	2	LAR	RIB	U	M	10	4											RIB FRAG WITH MODERN BREAKS								
25	OMS	4/001	1	LAR	RIB	U	M	2	2											V SMALL RIB FRAG MOD BREAK								
57	OMS	4/002	1	LAR	RIB	U	M	35	4											ANC BREAK BUT NOT CHOPPED								
58	OMS	4/002	1	LAR	RIB	U	M	15	4											COW SIZED RIB FRAG								
59	OMS	4/002	1	LAR	RIB	U	M	10	3							WHITE/PINK				POSSIBLY BURNT								
98	OMS	4/003	1	LAR	RIB	U	M	15	4											COW SIZED RIB FRAG								
99	OMS	4/003	1	LAR	RIB	U	M	50	4											COW SIZED RIB FRAG								
100	OMS	4/003	1	LAR	RIB	U	M	2	2											SMALL FRAG MOD BREAK								
101	OMS	4/003	1	LAR	RIB	U	M	30	4																			
102	OMS	4/003	1	LAR	RIB	U	M	20	4				H															
103	OMS	4/003	1	LAR	RIB	U	M	5	3																			
104	OMS	4/003	1	LAR	RIB	U	M	5	3							WHITE				BURNT WHITE								
105	OMS	4/003	1	LAR	RIB	U	M	3	2																			
132	OMS	4/004	1	LAR	RIB	U	M	5	4																			
133	OMS	4/004	1	LAR	RIB	U	M	2	3																			

2.2.6. /5 Animal Bone Data

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
134	OMS	4/004	1	LAR	RIB	U	M	4	3						Y 2PCS					IN 2 PCS MOD BREAK								2
156	OMS	6/002	4	LAR	RIB	U	M	15	3											MID SECTION RIBS								
157	OMS	6/002	1	LAR	RIB	U	M	20	4																			
200	OMS	6/003	1	LAR	RIB	U	M	25	5																			
237	OMS	7/002	1	LAR	RIB	U	M	15	4											MOD BREAKS								
238	OMS	7/002	1	LAR	RIB	U	M	10	4											MOD BREAK								
239	OMS	7/002	1	LAR	RIB	U	M	5	4			C								MOD BREAK ALSO CHOPPED								
240	OMS	7/002	1	LAR	RIB	U	M	10	3											RIB RAGS MOD BREAKS								
278	OMS	7/003	1	LAR	RIB	U	M	15	5																			
292	OMS	7/004	1	LAR	RIB	U	M	25	5																			
307	OMS	7/005	1	LAR	RIB	U	M	30	5										R3									
333	OMS	9/002	1	LAR	RIB	U	M	2	3											MODERN BREAKS								
362	OMS	THE WELL CONTEXT 12	1	LAR	RIB	I	M	5	4						Y					RIB FRAG PROX END OF SHAFT								
363	OMS	THE WELL CONTEXT 12	1	LAR	RIB	I	M	5	4						Y					TOWARDS STERNAL END								
242	OMS	7/002	1	LAR	SCA	U	CRN	5	4			C								FRAG OF SCAPULA								
243	OMS	7/002	1	LAR	SCA	U	L	3	2						Y					MOD BREAK								
60	OMS	4/002	1	LAR	SCA	U	M	5	4											COW SIZED SCAP FRAG								
159	OMS	6/002	2	LAR	SCA	U	M	5	3											FRAGS OF SCAPULA MOD								
334	OMS	9/002	1	LAR	SCA	U	M	15	4											MODERN BREAK								
335	OMS	9/002	1	LAR	SCA	U	M	15	4											MODERN BREAKS								
241	OMS	7/002	1	LAR	SCA	R	P	15	4			C								FRAG OF NECK CHOPPED ALSO MOD BREAK								
201	OMS	6/003	11	LAR	SKL	U	F		3											FLAT SKULL FRAGS PROB PART OF CATTLE SKULL								
202	OMS	6/003	1	LAR	SKL	U	F	3	3											SMALL FRAGS OF SKULL								
279	OMS	7/003	1	LAR	SKL	U	F	15	4										R2	FRAG OF NASAL BONE								
293	OMS	7/004	1	LAR	SKL	U	F	5	3																			
244	OMS	7/002	2	LAR	SKL	U		5	4											FRAG OF SKULL								
245	OMS	7/002	1	LAR	TIB	L	D M	30	4			H						C2 D		DISTAL SHAFT CHOPPED AND GNAWED								
160	OMS	6/002	1	LAR	TIB	U	P	5	4	U										FRAG OF PROX SHAFT UNFUSED								
246	OMS	7/002	1	LAR	VAT	L	CAU	35	4											MOD BREAK								
203	OMS	6/003	1	LAR	VC	U	L	30	4											FRAG OF CERVICAL VERT								
61	OMS	4/002	1	LAR	VC	B	M	80	4											CERVICAL VERT								
247	OMS	7/002	1	LAR	VL	B	S	15	4			K								CUTS ACROSS OUTSIDE OF NEURAL ARCH LEFT SIDE								
281	OMS	7/003	1	LAR	VT	B	F	4	3											FRGA OF NEURAL SPINE								
26	OMS	4/001	1	LAR	VT	B	S	25	4											BASE OF NERUAL SPINE ANCINET BREAKS BUT NOT BUTCHERED								
280	OMS	7/003	1	LAR	VT	B	S	30	5											SPINE AND TOP OF NEURAL ARCH MOD BREAKS								
336	OMS	9/002	1	LAR	VX	U	F	3	3											LATERAL ARTIC FACET								
315	OMS	8/003	1	LEP	FEM	R	M	60	4	U	U									RABBIT/HARE BOTH EPEIPHS								
308	OMS	7/005	1	LEP	HUM	R	D	40	4											RABBIT OF HARE DISTAL								
313	OMS	8/002	1	LEP	HUM	R	P M	65	4											RABBIT/HARE HUMERUS								
316	OMS	8/003	1	LEP	HUM	L	P M	80	4	U	F									RABBIT HARE PROX UNFUSED								
314	OMS	8/002	1	LEP	JAW	L	W9	90	4											IN WEAR LOOKS LIKE RABBIT								
311	OMS	8/001	1	LEP	SKL	U	P	65	4											RABBIT/HARE SKULL FEELS QUITE MODERN								
364	OMS	THE WELL CONTEXT 12	11	MAM	FRAG	I	F								Y					UNID FRAGS								
309	OMS	7/005	1	MAM	FRAG	U	F		1											TINY FRAG								
337	OMS	9/002	12	MAM	FRAG	U	F		1											TINY FRAGMENTS								
62	OMS	4/002	1	MAM	FRAG	U										WHITE				BURNT WHITE CALCNIED								
63	OMS	4/002	1	MAM	FRAG	U										WHITE				CALCINED								
106	OMS	4/003	10	MAM	FRAG	U			2											SMALL UNDI FRAGS								
248	OMS	7/002	5	MAM	FRAG	U			3											FRAGS WITH MOD BREAKS								
282	OMS	7/003	1	MAM	FRAG	U			3							WHITE				BURNT								
249	OMS	7/002	1	MAM	LFRAG	U	F	2	3										R2	SMALL WEATHERED FRAG								
107	OMS	4/003	1	PIG	JAW	L	ANT	25	4	F										ANTERIOR PART OF MANDIBLE WITH INCISORS MIX OF DECID AND								
339	OMS	9/002	1	PIG	JAW	R	ANT	10	3											MANIBLE WITH INCISOR AND CANINE LOOKS FEMALE								
64	OMS	4/002	1	PIG	JAW	L	M	40	4					XWWDLJ.						MANIBLE WITH P2-M2 AND 1/2 OF M3 CAN'T RECORD								
338	OMS	9/002	1	PIG	JAW	R	M	15	4					...Uca.						P4 M1 AND M2 PRESENT								
349	OMS	9/US	1	PIG	JAW	R	M	35	4					...ag..						MANDIBLE FRAGMENT WITH P4 AND M1 PRESENT								
367	OMS	US	1	PIG	JAW	L	M	15	4			C		.....f/M2						MANDIBLE WITH M2 AND M3 PRESENT								
144	OMS	4/US	1	PIG	JAW	L	P	15	4					.....dE	Y 7PCS					M2 AND M3 PRESEMNT								
294	OMS	7/004	1	PIG	LC	R	W9	70	4											MALE CANINE IN WEAR								
250	OMS	7/002	1	PIG	LI	R	W	100	3											LOWRE INCISOR UNWORN								

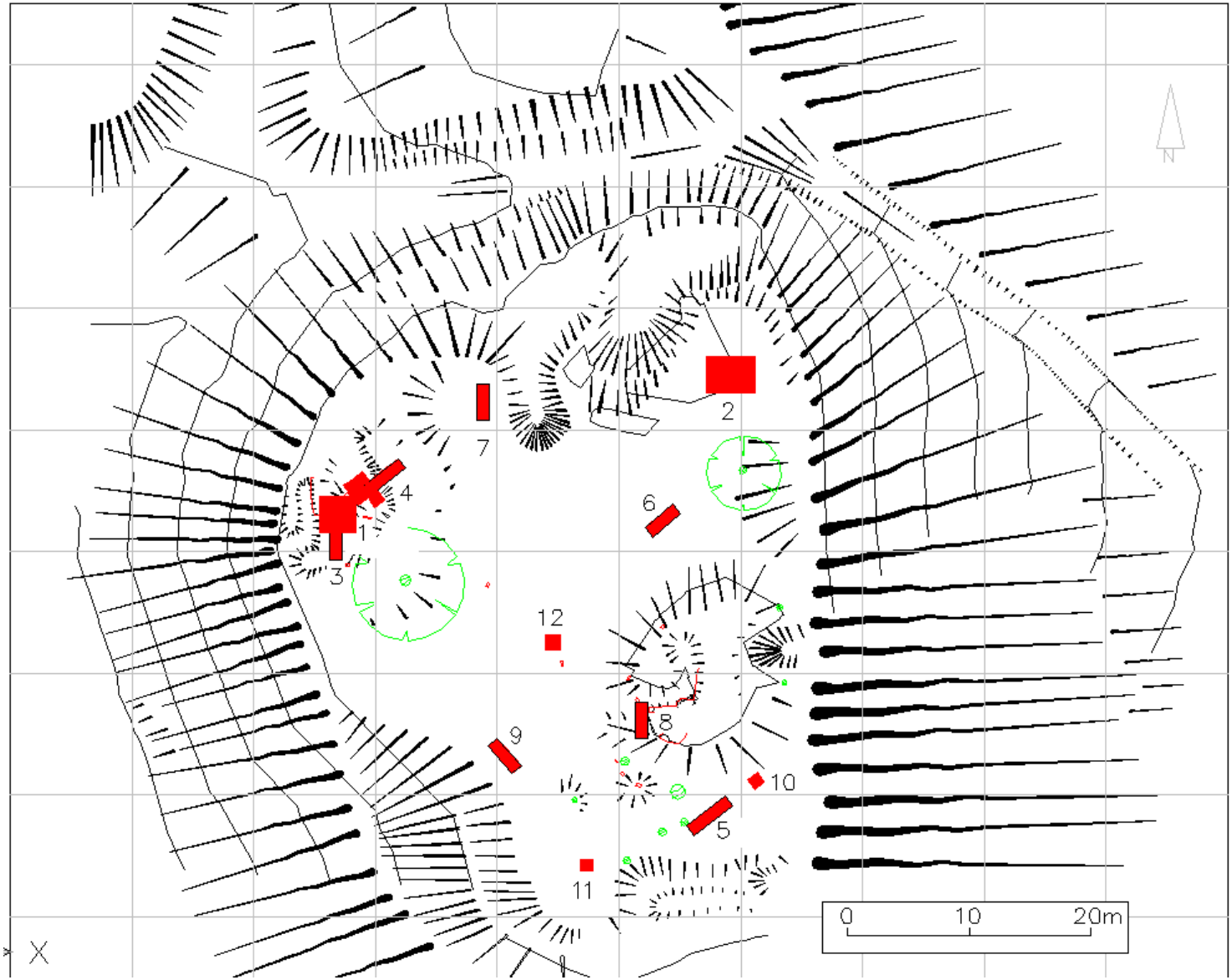
2.2.6. /6 Animal Bone Data

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
108	OMS	4/003	1	PIG	LPM	R	W	100	2											P3 IN WEAR								
161	OMS	6/002	1	PIG	MC4	L	P	45	3	F										PROX MC 4 MOD BREAK								
295	OMS	7/004	1	PIG	MP	U	P M	75	3											LATERAL MP WITH DISTAL ARTIC MISSING								
162	OMS	6/002	1	PIG	RAD	R	P	25	3	U										UNFUSED PROX RAD								
340	OMS	9/002	1	PIG	SKL	L	L	5	3											FRGMANE OF MAXILLA WITH MOLAR M1 OR 2 PRESENT JUST IN								
204	OMS	6/003	1	PIG	TIB	L	M	55	4	U	U									TIB SHAFT								
251	OMS	7/002	1	PIG	TIB	R	M	45	4										R1	JUST SHAFT								
109	OMS	4/003	1	PIG	ULN	L	M	45	4	U								C2 P		UNFUSED OLEC BUT ALSO								
163	OMS	6/002	1	PIG	ULN	R	M	40	4											MOD BREAK SO CAN'T SEE								
65	OMS	4/002	1	PIG	ULN	L	P	45	4	U		L						C1 P										
110	OMS	4/003	1	PIG	VAT	L	L	45	3											LEFT HALF OF ATLAS								
21	OMS	3/005	2	RED	ANT	L	M	15	5				CV							BEAM PART OF ANTLER IN 2 PCS DURE TPO MOD BREAK CHOPPED ON LOWER REAR								
135	OMS	4/004	1	RED	ANT	U	P	5	4				C 2							TINE WITH 2 CHOP MARKS								
350	OMS	9/US	1	RED	JAW	R	M	30	4					....dc						MANDIBLE WITH M2 AND M3 CHECK WITH DEER								
205	OMS	6/003	1	RED	OC	L	M	20	4										R3	WEATHERED LOOKS LIKE FALLWO BUT CHECK								
136	OMS	4/004	1	RED	SKL	B	BASE	10	4																			
111	OMS	4/003	1	ROE	JAW	L	ANT	40	4																			
206	OMS	6/003	1	S/G	HUM	R	D	35	3		F		H						R2	VEATHERED AND SHAFT CHOPPED THROUGH								
341	OMS	9/002	1	S/G	HUM	L	D	10	3		F									PART OF TROCHLEA								
66	OMS	4/002	1	S/G	MT	R	M	55	4									C1 P D		JUST SHAFT LIGHT GNAWED BOTH ENDS								
283	OMS	7/003	1	S/G	MT	U	P	15	4			S								SPIRAL FRACTURE								
342	OMS	9/002	1	S/G	RAD	L	D	15	3		J									FUSION LINE OPEN MODERN BREAKS								
6	OMS	10/001	1	S/G	SCA	L	M	25	4										HT	JUST BORDER AND BASE OF								
207	OMS	6/003	1	S/G	SCA	L	P	35	4	F										PROXIMAL SCAP								
284	OMS	7/003	1	S/G	SCA	L	P	40	4	F									R2	QUITE WEATHERED								
252	OMS	7/002	1	S/G	SKL	R	L	1	2											FRAG OF RIGHT TEMPORAL								
112	OMS	4/003	1	S/G	TIB	L	M	40	4																			
67	OMS	4/002	1	S/G	ULN	L	P	35	4	U								C1 P		HARD TO TELL FUSION LOOKED UNFUSED BUT ALSO LIGHT GNAWING								
137	OMS	4/004	1	SAR	HUM	L	D	20	3											DISTAL HUM PROB PIG								
27	OMS	4/001	1	SAR	HUM	R	D	15	4						Y					DISTAL HUM SHAFT PROB PIG CHOPPED RIGHT THROUGH								
343	OMS	9/002	1	SAR	HUM	L	M	30	4		U		C							DISTAL SHAFT MODERN BREAKS								
68	OMS	4/002	1	SAR	JAW	U		5	2							WHITE				FRAG IN 3 PCS CALCINED								3
7	OMS	10/001	2	SAR	LFRAG	U	M	10	4				H															
14		3/002	1	SAR	LFRAG		M	5	2				H							FRAG OF POSS TIB SHAFT CHOPPED THROUGH								
28	OMS	4/001	1	SAR	LFRAG	U	M	5	3									C2		LONG BONE SHAFT FRAG WITH GNAWING								
70	OMS	4/002	1	SAR	LFRAG	U	M	5	3											LB SHAFT POSS TIB								
113	OMS	4/003	1	SAR	LFRAG	U	M	15	3				H															
114	OMS	4/003	1	SAR	LFRAG	U	M	10	3							WHITE/GRY				BURNT								
115	OMS	4/003	1	SAR	LFRAG	U	M	3	2							WHITE/GRY				BURNT								
116	OMS	4/003	4	SAR	LFRAG	U	M	3	2											SMALL FRAGS OF SSZ LB								
117	OMS	4/003		SAR	LFRAG	U	M	5	3																			
138	OMS	4/004	1	SAR	LFRAG	U	M	3	2							WHITE				BURNT								
139	OMS	4/004	8	SAR	LFRAG	U	M	4	3										R3	VERY WEATHERED								
164	OMS	6/002	1	SAR	LFRAG	U	M	10	3				H							SPILIT VERT								
208	OMS	6/003	1	SAR	LFRAG	U	M	15	5											LONG THIN SPINTER POSS DEER MTP								
253	OMS	7/002	5	SAR	LFRAG	U	M	5	3			C								SMALL FRAGS OF SHEEP SIZED LB CHOPEPD BUT ALSO MODERN BREAKAGE								
254	OMS	7/002	1	SAR	LFRAG	U	M	5	4			H							R1	SPLIT VERTICALLY SLIGHT WEATHERING								
255	OMS	7/002	1	SAR	LFRAG	U	M	10	3			H								SPLIT VERTICALLY								
285	OMS	7/003	1	SAR	LFRAG	U	M		3										R2	MOD BREAK								
296	OMS	7/004	1	SAR	LFRAG	U	M	35	5			H								SPLIT VERTICALLY								
297	OMS	7/004	1	SAR	LFRAG	U	M	5	3			C				WHITE												
344	OMS	9/002	1	SAR	LFRAG	U	M	3	3							WHITE												
345	OMS	9/002	1	SAR	LFRAG	U	M	5	3				H															
346	OMS	9/002	1	SAR	LFRAG	U	M	10	3											MODERN BREAKS								

2.2.6. /7 Animal Bone Data

Record ID	SITE	Context	Count	Species	Element	Side	SHD code	%	Size	PROX	DIST	Porosity	BUTCH	GRANT	Fragmented	Burnt	Ivoried	Gnawed	CONDIT	comments	GL	Bp	BFp	SD	Bd	Dd	BFd	FRAG COUNT
69	OMS	4/002	1	SAR	LFRAG	U		5	2									H		FRAG OF SSZ LB								
256	OMS	7/002	1	SAR	RAD	U	M	20	4			H								SPLIT VERTICALLY								
286	OMS	7/003	1	SAR	RAD	U	M	20	4											SECTION WITH ULNA SCAR								
8	OMS	10/001	2	SAR	RIB	U	M	10	4																			
71	OMS	4/002	1	SAR	RIB	U	M	20	4											SHEEP SIDE RIB DARK BROWN								
121	OMS	4/003		SAR	RIB	U	M	10	3																			
140	OMS	4/004	1	SAR	RIB	U	M	3	2																			
209	OMS	6/003	1	SAR	RIB	U	M	30	4																			
257	OMS	7/002	1	SAR	RIB	U	M	10	3																			
298	OMS	7/004	1	SAR	RIB	U	M	10	3																			
365	OMS	THE WELL CONTEXT 12	1	SAR	RIB	I	M	30	5						Y					SHEEP SIZED RIB FRAGMENT								
29	OMS	4/001	1	SAR	RIB	U	P	15	3											PROXIMAL RIB FRAG SSZ								
72	OMS	4/002	1	SAR	RIB	U	P	10	3	U										PROX RIB FRAG UNFUSED								
118	OMS	4/003	1	SAR	RIB	U	P	10	3	F																		
120	OMS	4/003	1	SAR	RIB	U	P	10	3	U																		
258	OMS	7/002	1	SAR	RIB	U	P	10	3	F										PROX RIB FRAG								
119	OMS	4/003	1	SAR	RIB	U	P M	15	3											SHORT RIB								
259	OMS	7/002	1	SAR	SCA	U	CRN	5	3			C																
73	OMS	4/002	1	SAR	SCA	U	M	5	3											FRAG OF SCAP BLADE AND								
74	OMS	4/002	1	SAR	SCA	U	M	5	3											SCAP BLADE FRAG								
260	OMS	7/002	1	SAR	SCA	U	M	3	3										HT	SMALL FRAG OF SCAP BLADE								
165	OMS	6/002	1	SAR	SKL	R	ANT	5	3											FRAG OF NASAL BONE								
122	OMS	4/003	1	SAR	TIB	U	M	20	4				H							SHEEP SIZED TIB								
123	OMS	4/003	1	SAR	TIB	U	M	50	4											SHEEP SIZED TIB SHAFT								
261	OMS	7/002	1	SAR	TIB	U	M	30	4																			
287	OMS	7/003	1	SAR	TIB	U	M	25	4			H								DISTAL PART OF SHAFT CHOPPED THROUGH								
210	OMS	6/003	1	SAR	VL	B	W9	85	4	U	U									LUMBAR VERT MINUS PROCESSED UNFUSED CRAN								
124	OMS	4/003	1	SAR	VT	U	D	10	3											BASE OF DORSAL SPINE								
9	OMS	10/001	1	SAR	VT	B	S	15	3											DORSAL SPINE								
299	OMS	7/004	1	SAR	VT	B	S	5	3							WHITE				JUST NEURAL SPINE								
262	OMS	7/002	1	SAR	VT	B	W9	85	3	U	U									ONLY NEURAL SPINE MISSING MOD BREAK								
141	OMS	4/004	1	SAR	VX	U	M	15	2	F	F									FRAG OF CENTRUM								
211	OMS	6/003	1	SAR	VX	F	M	35	3	U										VERT FRAG								
263	OMS	7/002	1	SAR	VX	B	M	25	2	U	U									UNFUSED CENTRUM								
347	OMS	9/002	1	SAR	VX	B	M	25	3							WHITE				JUST CENTRUM								
166	OMS	6/002	1	SHE	LM	L	W	100	3					.....g						LOWER M3								
212	OMS	6/003	1	SHE	MC	R	D	20	3		U									DISTAL EPIPH ONLY								
15	OMS	3/002	1	SHE	MC	L	DE	20	2		U		K							GOOD COND KNITE CUT ACROSS CONDYLES								
213	OMS	6/003	2	SHE	PH1	U	W	100	3	F										LARGE BUT MORPH IS SHEEP NOT DEER								
264	OMS	7/002	1	SHE	SKL	R	L	5	3	U										FRAG OF ORBIT NOT FULLY FUSED WHERE MEETS PARIETAL								
75	OMS	4/002	1	SHE	TIB	R	M D	45	4		F									DISTAL HALF OF TIB ANC BREAK BUT NOT OBVIOUSLY CHOPPED								
265	OMS	7/002	1	VSAR	VT	B	W9	80	2	F	F									DOG/CAT SIZE VERT								
310	OMS	7/005	1	VSAR	VT	B	W9	70	3											VERT FROM DOG OR CAT SIZED ANIMAL								

2.2.6. /8 Animal Bone Data



3. Fig. 1. Plan of site and trench positions 1 to 12 incl.

3.1. Summary of Reports

The broad taxon of bone has been identified as cow, sheep/goat, and pig, with lesser fragments of horse, Roe buck, fallow, and birds. Gnaw marks show the existence of dogs. Butchery marks show both jointing and meat removal with some limb bones being chopped. Pig bones have been identified as from an adult sow and immature juveniles or suckling pig. Bird bones have been identified as goose and domestic duck.

The evidence of deer testifies that Shrawley Wood was once connected to the great Wyre Forest to the north. Wyre forest was owned by the Mortimers, the Earls of March, and is best described as a chase. A forest was a royal domain where only the king hunted game. The nobility were allowed to hunt game in their chases. Fallow deer represent 6% of the assemblages and is the most numerous. Fallow deer is widely accepted to have been introduced by the Normans. Only the nobility ate meat.

By the 1300s Shrawley wood would have become isolated from Wyre Forest as the peasantry assarted parcels of land from the forest. Also with the increase of forestry, Shrawley Wood was becoming a valuable source of fuel for the brine boiling at Droitwich, that what game was present disappeared. With over half of the bones identified as cow this indicates that cattle were the main diet of the castle. Shrawley Castle controlled the ancient fording place for cattle droves from Wales and no doubt cattle due was levied on the drovers for allowing their herds to cross the River Severn. Indeed the quarry site to the south of the castle has been reputed to have been an overnight holding pen for herds waiting to cross the river, with other beasts corralled in the fields next to the river. Pack horse teams were also regular visitors to the crossing.

A smaller percentage of the bones were pig bone with the animals probably killed within the site of the castle. Suggestions are that the pigs were spit roasted. Of the sheep/goat bones butchery marks are rare showing that the animals were not kept on site but were butchered elsewhere and joints brought to the castle. Two bones of an aged dog were present, perhaps a family pet or a hunting hound.

What the bone assemblages reveal is there was no evidence of livestock being reared, or bred for meat at the site. Consumer rather than producer products were placed on the table of the residents. This shows that the occupancy of the lords of the manor, the le Poers, used Olivers Mound as a residence or manor house for administration of the river and the crossing, not as a fortified castle. In the last years of the castle's occupancy by Aline le Poer the bone assemblages' show that it was still regarded as a high status site, perhaps finishing its life as a hunting lodge for visitors and dignitaries.

As a postscript, Trench 12 was investigated as a high reading on the resistivity on the geophysical survey and a depression in the ground. An 18th century account mentions a well. What was found was no well but an assemblage of bone. Silvia Warman has identified badger bone, and the scenario is that after the castle was demolished and abandoned sometime in the 1350s, a badger took up residence and uncovered the refuse pits on site. The animal then dragged the bones down into its den.

For this report I wish to thank Sheila Hamilton-Dyer who carried out the bone analysis, and who wrote the phase I report, and for Sylvia Warman who carried out the bone analysis, and wrote the phase II & III report. Also I wish thank for Diana Huston for her photograph on the front page. This was taken at the time of the phase I excavation, soon after the finds were removed from the trenches, and were being washed ready for storage and investigation.

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