

# A Small Zooarchaeological Assemblage from Two Neolithic Pits

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# Tilshead Nursery School Wiltshire

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SUMMARY

An analysis of a small assemblage of animal bones from two intercutting Neolithic pits, identified pig or wild boar and sheep or goat bones and at least one antler. Conclusions differ to the original summary report on the assemblage (Amadio 2010).

#### ACKNOWLEDGEMENTS

Lisa Brown and the Wiltshire Museum, Devizes kindly allowed the assemblage to be brought to Fort Cumberland for analysis.

Gill Campbell, Historic England, confirmed identification of burnt hazelnut shell

ARCHIVE LOCATION The assemblage is held at Wiltshire Museum, Devizes

DATE OF RESEARCH 02/03/2017

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# INTRODUCTION

Animal bone was recovered from two Neolithic pits hurriedly excavated under rescue conditions by the Wiltshire Archaeological and Natural History Society in 2009. The bone was not examined by a zooarchaeologist, but was summarised in a grey literature report (Amadio 2010).

The site is one of only few potential middle Neolithic pits from Wiltshire and as such is an important comparator for 2015-6 excavations by Historic England at West Amesbury Farm (HE 7238-671). This report is a specialist analysis of the animal bone assemblage from Tilshead Nursery School pits undertaken to inform post-excavation analysis of HE 7238-671 and in advance of a broader radiocarbon dating programme associated with that excavation.

#### METHODS

The assemblage was examined by the author at Fort Cumberland, Portsmouth, using the Historic England Zooarchaeological Reference Collection.

Countable specimens were individually recorded into a Historic England Zooarchaeology database, with all data included in a data appendix to this report. The database itself will not be archived. Notes on non-countable specimens are also included in an appendix data table. Number of Identified Specimens (NISP) corresponds to countable specimens only.

Specimens were considered countable if they comprised at least 50% of any bone zone (appendicular bones), at least 50% of any centrum zone (vertebra) at least 50% of zones 1 or 2 (ribs), at least 50% of the crown (teeth), if they were identifiable to taxon (cranial elements, carpals, tarsals and sesamoids) or for antler, if they included a diagnostic region (eg a tine tip). Zone definitions follow Serjeantson (1996), with the addition of the following mandible zones transcribed from a bovid mandible illustration (Serjeantson pers comm):

- Zone 1 incisor and canine region
- Zone 2 diastema
- Zone 3 cheek tooth row and associated superior half of the mandible body
- Zone 4 -inferior half of the mandible body below zone 3
- Zone 5 ascending ramus including mandibular foramen
- Zone 6 angle
- Zone 7 coronoid process
- Zone 8 mandibular condyle

Recently broken fragments were refitted and recorded in a single specimen record (ie NISP 1) with a note of the number of refitted pieces. Refitting unfused epiphyses and diaphysis are also counted as NISP 1.

All specimens were examined for pathologies and taphonomic modifications including carcass processing marks, burning, root etching and animal gnawing. For countable specimens, fragmentation was also examined through presence/absence of new (recent) breaks, zone representation and assigning fragments to a completeness category.

Epiphyseal fusion and tooth eruption ages are estimated following Silver (1969). Fully fused and suitably complete specimens were measured following von den Driesch (1976) and withers heights are calculated following Teichert (1975). No measurements could be recorded for suid species, preventing metric distinction of wild boar and domestic pig.

#### **OBSERVATIONS**

The bags of animal bone are inconsistently labelled with context, cut and sample numbers. Amadio reports that the 'samples were taken from what appeared to be different contexts' (2010, 12). Sample fractions are generally not labelled and it is assumed that remains from different fractions have been combined in most cases. For this report the provenance of each bag of bones has been determined by comparing the bag labels with tables in the original report (Amadio 2010, Figures 23 and 24). Context (003) is presented as wet sieved in the original report, but no sample number is given on its bag or in the report.

A number of other remains were extracted from the animal bone and antler bags including miscategorised hazelnut shell and flint. The quantities of these materials given in the original report are therefore underrepresentations. There are also some instances of bone and antler being miscategorised.

The original report notes that "small fragments of animal bone, which cannot be identified, will be discarded before deposition" (Amadio 2010, 23), however the retained assemblage includes many small fragments. The quantifications for zooarchaeological remains given in this report include all remains currently in the archive.

#### RESULTS

The majority of animal bones are small fragments recovered from sample residues, though hand collected bones were recovered from three Pit 2 contexts: (001), (002) and (012).

Only 37 specimens (7% fragments) were countable, and included antler (probably from red deer, *Cervus elaphus*); suid (pig or wild boar, *Sus domestica/Sus scrofa*), sheep or goat (*Ovis aries/Capra hircus*) and sheep/goat or perhaps roe deer (*Capreolus capreolus*) (Table 1). The remaining countable fragments were medium mammal (ie sheep or pig) sized. A similar range of taxa was noted in the non-countable assemblage and it is likely that most small non-countable fragments are derived from the broken countable bones.

	(NIS	Cou P; Numb		ble asso of Ident			iens)	I	Non-cou (numł		e assem fragmer		1
Pit and context or sample	Red deer antler	Suid <sup>+</sup>	Sheep/goat	Sheep/goat/roe deer	Medium mammal	Neonatal medium mammal?	Total	Red deer antler	Suid†	Medium mammal	Large/medium mammal	Mammal	Total
Pit 1													
<013>	-	4 (2)	-	-	2	-	8	7	(2)	95	-	1	105
Pit 2													
(001)	1	1 (1‡)	-	-	-	-	3	23	-	7	1	-	31
(002)	-	1	-	-	-	-	1	7	-	8	-	-	15
(003)*	3	6‡	3	-	1	1	14	76	(1)	36‡	-	-	113
<005>	-	1(1)	-	-	-	-	2	8	-	3	-	43	54
<006>	-	-	-	-	-	-	0	7	-	82	-	-	89
<007>	-	1	-	-	-	-	1	7	-	20	-	-	27
<011>	-	3	1	-	-	-	4	1	1	24‡	-	-	26
(012)	-	1	2	1	-	-	4	-	-	1	-	-	1
Total	4	18(4)	6	1	3	1	37	136	1(3)	276	1	44	461

Table 1 Summary of assemblage by context and taxon

\* May have been wet-sieved, but presented as context number on bag; † quantification of probable suid bones are presented in parentheses; ‡ includes one or two very young/neonate bones

The assemblage is highly fragmentary, with lots of recent breaks, but generally in good condition (Table 2). There is evidence for some cross context contamination through refitting recent breaks and refitting unfused epiphyses. Root etching is evident in some contexts and evidence for burning is prevalent, with the degree of burning varying from scorching/singing (S), through charring (B) to calcination (C). No animal gnawing was identified.

#### Pit 1

Pit 1 was cut by Pit 2. It was not fully excavated but sample <013> was extracted from its fill. The original report cites 128+ fragments of bone, none of which were identified, and 7 fragments of antler from this pit.

This analysis recorded eight countable suid or medium mammal sized bones and teeth (Tables 1 and 4), one of which refits with a fragment from context (001), Pit 2. The bones may be from a single suid that was younger than two years old at the time of its death based on bone fusion (unfused metacarpal and distal tibia). Elements present include parts of the head and neck (maxillary tooth; first cervical vertebra), right pelvis, left tibia and right fore foot (5<sup>th</sup> metacarpal). In addition there were 98 burnt and unburnt fragments of non-countable bones and teeth and 7 small fragments of non-countable antler (Tables 1 and 5). The antler fragments may refit with other antler fragments recovered from Pit 2.

m 11 0	m 1	•	• 1
Table 7	Tanhond	imic e	vidence
Table 2	Taphono	mic c	viaciice

<b>F</b> -11	Data astronom				Conte	xt/sample					
Evidence	Data category	(001)	(002)	(003)	<005>	<006>	<007>	<011>	(012)	<013>	Total
Surface condition,	Good	3	1	14	2	-	1	4	4	8	37
countable fragments only (NISP)	Moderate-poor	0	0	0	0	-	0	0	0	0	0
	1-20 %	2	1	6	2	-	-	4	1	2	18
	21-40 %	-	-	3	-	-	-	-	1	4	8
Completeness,	41-50 %	-	-	3	-	-	-	-	-	-	3
countable fragments	51-60 %	1	-	-	-	-	-	-	-	-	1
only (NISP)	71-80 %	-	-	1	-	-	-	-	-	-	1
	81-90 %	-	-	1	-	-	-	-	-	1	2
	91-100 %	-	-	-	-	-	1	-	2	1	4
Root etching,	Yes	-	-	6	-	-	-	1	4	1	12
countable fragments only (NISP)	No	3	1	8	2	-	1	3	-	7	25
New breaks,	Yes	3	1	13	1	-	-	3	4	5	30
countable fragments only (NISP)	No	-	-	1	1	-	1	1	-	3	7
	NISP antler	0	1	3	0	-	0	0	0	0	4
Burning, countable	% antler burnt	-	100%	100%	-	-	-	-	-	-	100%
fragments only	NISP bone/tooth	2	1	11	2	-	1	4	4	8	33
	% bone/tooth burnt	50%	0%	64%	0%	-	100%	100%	100%	25%	58%
	Total antler	23	7	76	8	7	7	1	0	7	136
Burning, non-	% antler burnt	100%	100%	88%	100%	86%	100%	100%	-	57%	90%
countable fragments only	Total bone/tooth	8	8	37	46	82	20	25	1	98	325
-	% bone/tooth burnt	0%	75%	32%	63%	41%	40%	28%	100%	26%	38%

#### Pit 2

The fill of Pit 2 was recorded as nine different contexts and samples. A refitting unfused epiphysis and diaphysis of a suid tibia were recovered from context (001) sample <005> and refitting fragments of suid pelvis were recovered from context (001) and Pit 1 fill (013), suggesting that some fragments may be misallocated.

The highest proportions of countable and non-countable specimens were recovered from context (003) towards the top of the fill sequence (Table 1, Figure 1), but fragments were dispersed throughout the fills.

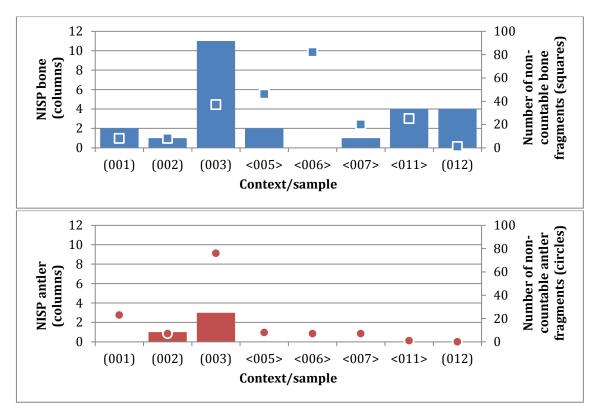


Figure 1 Distribution of zooarchaeological remains in Pit 2. Bones and teeth in blue (top) and antler in red (bottom). Contexts 7 to 12 extended across the pit and are in stratigraphic order with 12 being the earliest fill. Contexts 1 to 3 are also in stratigraphic order, but shown on the schematic section sketch (Amadio 2010 Figure 22) and plan to be adjacent to Context 5 and 6

The pit contained 29 countable specimens including suid and sheep or goat (or possibly roe deer) bones and teeth from several individuals and red deer antler (Tables 1 and 4). The possible mouse bones originally identified in <007> proved to be botanical remains and possibly modern. Also contra Amadio (2010), there is no conclusive evidence for worked antler objects. Most antler fragments probably came from one or two antlers.

Suids are the most frequent taxa by NISP. Suid remains include fragments from across the skeleton. From the head there is a burnt and potentially butchered mandible from (012) and a burnt unerupted mandibular tooth from <011>; an unburnt mandibular symphysis was found in (003). The left forelimb is represented by a humerus shaft from (001), and the left hind limb by a tibia, astragalus, burnt

calcaneum and 3<sup>rd</sup> and 4<sup>th</sup> tarsals from contexts (002) and (003) and samples <005> and <007>. A right pelvis fragment found in (001) refits with that from Pit 1. Feet are represented by two burnt lateral metapodials from sample <011> and a lateral first phalanx from context (005). Though only some of the bones are burnt they may be from the same pig aged younger than two years based on bone fusion (unfused calcaneum, distal tibia, first phalanx and metapodials) and younger than 17-20 months old based on tooth eruption. The fragments of tibia may be from the same bone as that from Pit 1.

A possible neonatal suid (or perhaps sheep/goat) humerus was also recovered from context (001), with a further neonatal suid metapodial (likely metacarpal) and similar sized rib from context (003). Non-countable neonatal medium mammal sized bones were also recovered from context (003) and sample <011>.



Figure 2 Sheep/goat and medium mammal bones. Locations of butchery marks highlighted

Singed sheep or goat bones were recovered from context (003) and samples <011> and <012>. All are in relatively good and complete condition compared to the suid and antler fragments. They comprise four fragments from at least three left scapulae, one right scapula, a right femur and a right humerus. A charred cervical vertebra from context (003) is sheep sized. The long bones were from a skeletally mature animal and the length of femur can be used to suggest that it stood at about 0.62m at the withers, taller than the few Neolithic sheep withers heights available (Serjeantson 2011, 29). It has been suggested that sheep size didn't increase until at least the late Iron Age (Hambleton 2008, 48-9), which may cast some doubt on a Neolithic interpretation of these bones, but can only be tested with radiocarbon dating. The right humerus (Figure 2) and one left scapula have clear cuts marks, which are likely to represent disarticulation of the shoulder and elbow joints. A noncountable medium mammal sized lumbar vertebra also has carcass processing marks (Figure 2). Clusters of cranio-caudal cut marks can be seen on the dorsal transverse process, towards the articulation and along the blade. These probably relate to filleting meat.

The majority of antler fragments were recovered from context (003) and include both burnt and unburnt fragments. Several of the fragments refit into a single antler crown (Figure 3), with an area of scorching in the junction between the crown tines. The heavily charred fragments include a third tine, which may be from the same specimen or a separate antler. The worn and scratched tips of the tines may represent use wear if the specimen was a tool, but may also be non-anthropogenic (see Jin and Shipman 2010). The antler has fractured in a manner resulting in domed broken surfaces, which resemble antler working marks. In all cases these are likely to be post-depositional fractures, however several were misinterpreted as individual worked tools in Amadio (2010). The countable antler from context (001) shown in Amadio (2010, figure 36) is also fragmented, but not worked (Figure 4). It may refit with burnt fragments from context (003) and it is therefore unlikely that it was purposively placed to resemble a phallus (contra Amadio 2010, 21).

### CONCLUSIONS

This analysis suggests different species and element profiles, and a differing interpretation of antler to the original summary report (Amadio 2010). The total fragment counts also differ from the original report; 323 bone and tooth fragments were recorded here, 11 less than Amadio (2010), but likely impacted by quantification methodologies employed (eg NISP). The antler count is more significantly different (by 81 to 181 fragments), largely due to a large number of hazelnut fragments that were originally identified and counted as antler. Given the total number of fragments recorded here it seems unlikely that any animal remains have been discarded from the archive.

Deposition in the pits included at least one antler and comprised the crown region, which is a recognised Neolithic tool type (Worley and Serjeantson 2014). Antler tools including crown rakes and picks are found in many Neolithic pits. In this case the antler crown had been scorched, while other antler fragments were charred. Much of the animal assemblage had also been burnt. Animals represented include suids and sheep or goats, with carcass processing seen clearly on the latter. There is at least one very young and one older suid present, and at least three sheep or goats. Possible carcass processing of a suid mandible resembles that recorded by the author from middle Neolithic pits at West Amesbury Farm, but may not be a technology limited to the Neolithic period. There is no evidence for larger species such as cattle (*Bos taurus*) or aurochs (*Bos primigenius*), nor is there evidence for the use of deer carcasses.

The animal bone assemblage from these pits cannot be considered stratigraphically secure at the level of each context given the presence of refitting recent breaks and unfused epiphyses across contexts and across both pits. However, the pits appear to be isolated from other activity and so the assemblage may still be of interpretative value as a comparator for those from West Amesbury Farm.

Potential radiocarbon samples include a suid tibia with refitting epiphysis found in context (001) and sample <005> from Pit 2, the well preserved sheep/goat bones from Pit 2 (presuming they are not too burnt to be a viable sample) and an unburnt antler fragment, also from Pit 2.

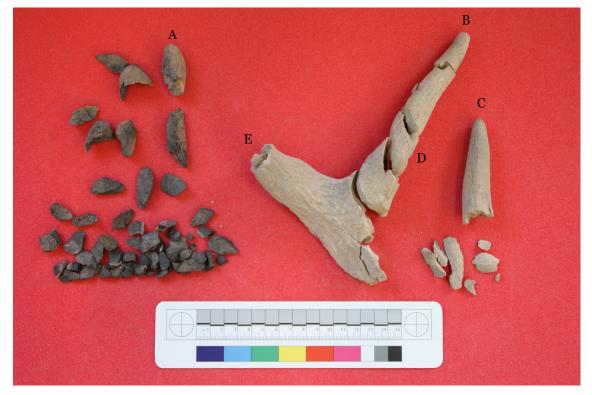


Figure 3 Antler fragments from Pit 2 context (003). Several of these fragments were erroneously identified as worked antler in the original report, Amadio (2010) Figures 32-35 show fragments marked as A to D here. A photograph of the antler *in situ* (Amadio 2010, Figure 17) suggests that tine tip C may have originally refitted on the tine base E. The tine tip is detached in a later *in situ* photo (Amadio 2010, Figure 18).



Figure 4 Antler fragments Pit 1 context (001), many of these fragments may refit. A photograph of fragment F is shown in Amadio (2010, Figure 36)

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# DATA APPENDIX

Description	of existing	g archive	Provenance an	d original quanti	fications	
Bag label	# bags	Description	Recovery	Amadio's heading*	Bone	Antler
[002] (001)	2	1 bag 'bone', 1 bag 'antler'	Hand collected	001	8	26
[002] (002)	2	1 bag 'bone', 1 bag 'horn antler' included 1 unworked flint and three bones (now extracted)	Hand collected	002	6	11
[002] (003)	2	2 bags 'antler'. Bags included assemblages of flint, burnt hazelnut and animal bone, now extracted	Sieved	003.1 & 003.2	28	3 + 125-225
<005>	2	1 bag 'bone', 1 bag 'antler'	Sieved	005	35	12
<006>	2	1 bag 'bone', 1 bag 'antler'	Sieved	006.1, 006.2 & 006.3	75	22
<007>	2	1 bag 'bone'(also includes a smaller bag) , 1 bag 'antler'	Sieved	007	23	8
<011>	2	1 bag 'bone' (also includes two smaller bags), includes two fragments unworked flint, 1 bag 'antler'	Sieved	011	23	7
(012); [002] (012)	3	3 bags 'bone' (some refit across bags above)	Hand collected	012	8	0
<013>	2	1 bag 'bone' (also includes 1 smaller bag) included unworked flint, 1 bag 'antler'	Sieved	013	128+	7
				TOTAL	334	221-321

Table 3 Description of existing animal bone archive and original quantifications from Amadio (2010, Figs 23-5; presumed to be a total fragment count)

				Z	one	es p	res	ent				Fus	ion			50	u			
Context/sam ple	Taxa	Element	Side	1	2	3	4	5	6	7	8	Proximal	Distal	Comments including butchery marks	Complete- ness	Root etching	Preservation	New break	Burning	Bone ID
														Beam/tine. Scorched, particularly on one side.						
														Fragmented following curved fissures in antler						
(001)	Red deer	Antler	?											resulting in domed end. No evidence of working. Many non-countable fragments probably refit	1-20 %		G	$\checkmark$	s	200
(001)	Suid	Pelvis	r R							$\checkmark$			-	Refits with fragment 197 (from pit 1)	1-20 %		G	v √	3	198
(001)	Sula	Pelvis	ĸ							v			-	Probable very young suid or sheep. Refitting proximal	1-20 %		G	v		198
(001)	Suid?	Humerus	L			~	$\checkmark$	$\checkmark$	$\checkmark$			U		end found in <005>	51-60 %		G	$\checkmark$	s	199
(001)					<ul> <li>✓</li> </ul>	v	× ✓	v	v			U	-				G	× √	3	
(002)	Suid	Astragalus	L		v		v						-	Bone ID 201 and 202 may be same bone	1-20 %		G	v		201
														Probably crown region, includes one tine and the base of a second. Scorched on one side. Comprises 7						
														1						
(003)	Red deer	Antler	?											refitting fragments. Does not directly refit with ID219 but may be same antler.	1-20 %		G	$\checkmark$	s	218
(003)	Keu ueer	Antier	ŗ											Tine tip with lots of scratches that may or may not be	1-20 %		G	v	3	210
														natural. Slightly scorched. Does not directly refit with						
(003)	Red deer	Antler	?											ID218 but may be same antler	1-20 %	$\checkmark$	G	$\checkmark$	s	219
(003)	Red deer	Antler	?										-	Tine tip. Tip rounded but may be non-anthropogenic	1-20 %	•	G	•	S	219
(003)	Medium	Cervical	•										-	The up. The founded but may be non-anthropogenic	1-20 /0		9	v	5	220
(003)	mammal	vertebra	Α	~	~					$\checkmark$	$\checkmark$			Sheep size. Plates fused. Burnt to black colour	41-50 %		G	$\checkmark$	В	216
()	Medium													Very young. Refitting fragments recovered from 10-						
(003)	mammal	Rib	?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$					5mm and >10mm fractions of <003.1>	21-40%			$\checkmark$		221
(003)	Sheep/goat	Scapula	R	$\checkmark$	√		$\checkmark$					-	F		1-20 %	$\checkmark$	G	$\checkmark$	S	213
(003)	Sheep/goat	Scapula	L	√	√	✓	$\checkmark$		$\checkmark$				U	2 refitting fragments. Different bone to ID 215	21-40 %	$\checkmark$	G	$\checkmark$	S	214
(003)	Sheep/goat	Scapula	L		1	$\checkmark$							-	Different bone to ID 214	1-20 %	$\checkmark$	G	$\checkmark$	S	215
(003)	Suid	Calcaneum	L	√	√	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		U			71-80 %	$\checkmark$	G	$\checkmark$	S	209
(003)	Suid	4 <sup>th</sup> tarsal	L	1								-			41-50 %		G	$\checkmark$	B	210
(003)	Suid	Humerus	L			$\checkmark$	$\checkmark$								21-40 %		G	$\checkmark$		212
(003)	Suid	Mandible	R	1										Fragment of mandibular symphysis	1-20 %	$\checkmark$	G	$\checkmark$	S	211
(003)	Suid	Metapodial	?	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$				U	Very young, probably metacarpal III or IV. Length of	81-90 %		G			217

														diaphysis = 19.7mm. Bag marked <003.1> 10-5mm						
														Distal shaft recovered from context 003, refitting						
(003)	Suid	Tibia	L					$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		U	epiphysis is in context 13 (included in this record)	41-50 %		G	$\checkmark$		192
<005>	Suid	1 <sup>st</sup> phalanx	?	$\checkmark$	$\checkmark$							U		Lateral phalanx, may be scorched	1-20 %		G			203
<005>	Suid?	Astragalus	?											<50% zone but recorded as substantial part (c. 15%)	1-20 %		G	$\checkmark$		202
<007>	Suid	3 <sup>rd</sup> tarsal	L	$\checkmark$				>90 %		G		В	204							
														2 refitting fragments. Diagonal cuts on medial face in						
<011>	Sheep/goat	Scapula	L	$\checkmark$	$\checkmark$		$\checkmark$						F	zone 2. Likely to represent disarticulation a humerus.	1-20 %	$\checkmark$	G	$\checkmark$	S	208
														Lateral/medial metapodial, probably burnt. Does not						
<011>	Suid	Metapodial	?							$\checkmark$	$\checkmark$		U	refit with ID207	1-20 %		G		В	206
														Lateral/medial metapodial, probably burnt. Does not						
<011>	Suid	Metapodial	?					$\checkmark$	$\checkmark$				U	refit with ID206	1-20 %		G	$\checkmark$	В	207
<011>	Suid	Tooth	?											Unerupted mandibular incisor crown, burnt (grey)	1-20 %		G	$\checkmark$	С	205
														3 refitted fragments. Blackened cancellous and brown						
(012)	Sheep/goat	Femur	R	$\checkmark$	F	F	surface. Measured: GL 177mm; SD 14.7mm	>90 %	$\checkmark$	G	$\checkmark$	S	188							
														2 refitting fragments. Scorched - slightly blackened						
														shaft mainly proximal. Cluster of cuts above distal						1
														articulation on anterior (zone 7). Measured:						
(012)	Sheep/goat	Humerus	R	$\checkmark$	F	F	SD15.4mm; BT 26.7mm; HTC 13.2mm; Bd 29.1mm	>90 %	$\checkmark$	G	$\checkmark$	S	185							
	Sheep/goat																			
(012)	/roe deer	Scapula	L			$\checkmark$								Slight dark brown colouration	1-20 %	$\checkmark$	G	$\checkmark$	S	186
														4 refitting fragments. Grey. Horizontal break below						
														hinge, possibly with associated cut; resembles					В	1
(012)	Suid	Mandible	R					$\checkmark$	$\checkmark$					butchery as at West Amesbury Farm	21-40 %	$\checkmark$	G	$\checkmark$	С	187
	Medium																			1
<013>	mammal	Vertebra	Α	$\checkmark$	$\checkmark$					$\checkmark$	$\checkmark$			Plates unfused	21-40 %	$\checkmark$	G	$\checkmark$		189
	Medium																			1
<013>	mammal	Vertebra	Α	$\checkmark$	$\checkmark$					$\checkmark$	$\checkmark$			Black	21-40 %		G		В	193
<013>	Suid	Atlas	Α			$\checkmark$	$\checkmark$		$\checkmark$					Slight scorching	21-40 %		G	$\checkmark$	S	194
		$5^{\rm th}$												Sounds like ceramic when tapped so may be burnt but						
<013>	Suid	metacarpal	R	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$				U	no cracks or warping	81-90 %		G			195
<013>	Suid	Tibia	L	$\checkmark$								U			1-20 %		G	$\checkmark$		191
<013>	Suid	Tooth	R											Isolated 1 <sup>st</sup> or second maxillary incisor	>90 %		G			190
<013>	Suid?	Pelvis	R		$\checkmark$	$\checkmark$	$\checkmark$							May be burnt. May be same bone as ID197	21-40 %		G	$\checkmark$		196
				1										May be burnt. May be same bone as ID196. Refits		1				
<013>	Suid?	Pelvis	R							$\checkmark$				with acetabulum fragment ID198	1-20 %		G	$\checkmark$		197

Table 5 Non-countable assemblage catalogue

Provenance		Total number	of fragmen	ts	
/Taxon	Element/region	Burnt	Unburnt	Total	Comments
Pit 1 <013>					
Red deer?	Antler and probable antler fragments	4 (black internal)	3	7	Probably refit with other antler fragments from the pits
Suid?	Incisor roots	0	2	2	
Medium mammal	Tooth root	1 (grey)	0	1	
Medium mammal	Cranial fragment	0	2	2	
Medium mammal	Jaw (maxilla or mandible) including premolar sockets	1 (slightly scorched)	0	1	
Medium mammal	Vertebrae	6 (black)	9	15	
Medium mammal	Rib midshaft	0	1	1	
Medium mammal	Tibia midshaft (2 refitting fragments)	1 (scorched)	0	1	
Medium mammal	Long bone fragment	0	2	2	
Medium mammal	Indeterminate bone fragments (mostly <10 mm)	16 (scorched)	56	72	
Indeterminate	Long bone shaft fragment	0	1	1	May be foetal medium mammal or older smaller mammal
	TOTAL (pit 1)	29	76	105	
Pit 2 (001)					
Red deer?	Antler	23 (dark brown/black)	0	23	Probably all refit onto countable antler
Medium mammal	Long bone shaft	0	5	5	
Medium mammal	Indeterminate bone	0	2	2	Two fragments refit, bagged with antler
Large/medium mammal	Indeterminate bone	0	1	1	May be cranial
Pit 2 (002)					
Red deer?	Antler and probable antler	7 (black	0	7	Probably refit onto other antler fragments recovered

		internal)			
Medium mammal	Vertebral body fragment	0	1	1	
Medium mammal	Long bone shaft	6 (? Scorched)	0	6	May refit, probably tibia
Medium mammal	Indeterminate bone	0	1	1	
Pit 2 (003)					
Red deer?	Antler fragments	67 (black, some tan on cortex)	9	76	Probably all refit onto countable antler, two bagged with bone
Suid?	Possible mandible fragment	1 (singed)	0	1	
Medium mammal	Vertebral processes including unburnt lumbar lateral process	1 (black)	1	2	Lumbar vertebra has transverse cut marks on dorsal process towards articulation and on 'blade'
Medium mammal	Scapula blade margin	0	1	1	Does not refit with countable scapula in the context
Medium mammal	Long bone shaft	1 (singed)	0	1	
Medium mammal	Indeterminate bone fragment	9 (singed)	22	31	
Medium mammal	Long bone shaft	0	1	1	In bag marked >10mm <003.1>. Neonate size
Pit 2 <005>					
Red deer?	Antler	8 (black)	0	8	Probably all refit onto countable antler
Medium mammal	Vertebral processes (one burnt) and unfused plate	1 (black)	2	3	
Mammal	Antler/indeterminate bone fragments	28 (black)	15	43	Some bagged with bone, some with antler
Pit 2 <006>					
Red deer?	Antler fragment	6 (black)	1	7	
Medium mammal	Vertebral plate (unfused)	0	1	1	Originally bagged with antler
Medium mammal	Indeterminate bone fragments	34 (black)	47	81	Some originally bagged with antler
Pit 2 <007>					
Red deer?	Antler fragment	7 (black)	0	7	
Medium mammal	Indeterminate bone fragments, including possible burnt tooth root	8 (black)	12	20	
Pit 2 <011>					

Red deer?	Antler fragment	1 (black on internal)	0	1	
Suid	Tooth enamel fragment	0	1	1	
Medium mammal	Cranial fragments including burnt probable tympanic bulla	1 (black)	2	3	Burnt fragment originally bagged with antler
Medium mammal	Mandible body/angle fragment	1 (grey)	0	1	Does not refit with mandible in context 12.
Medium mammal	Vertebral process	0	1	1	
Medium mammal	Scapula blade margin	0	1	1	Does not refit with countable scapula in the context
Medium mammal	Indeterminate bone	5 (black)	11	16	Burnt fragments originally bagged with antler
Medium mammal	Long bone shaft	0	2	2	Neonate size. May be humerus and tibia shaft. Bag marked 10-5mm
Pit 2 (012)					
Medium mammal	Cervical vertebra process	1 (black)	0	1	Sheep size
	TOTAL (pit 2)	216	140	356	



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