ANCIENT MONUMENTS LABORATORY

REPORT

4926

SERIES/No CONTRACTOR

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TITLE Animal bone from Late Saxon contexts in Southampton

April 1985

ANIMAL BONE FROM LATE SAXON CONTEXTS IN SOUTHAMPTON

Report to the Historic Buildings and Monuments Commission

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The study of the Late Saxon period in Southampton has recently grown more precise as more material has been phased, and it is interesting that even at the level of phasing the evidence from the animal bone has been useful in offering a key to some of the problems. Much has been achieved in recent months, and the momentum of new ideas is leading to the recognition of more Late Saxon contexts and more Late Saxon bones. The present report is therefore more a record of work achieved and of questions raised than an attempt at definitive answers, and prospects for future study are discussed in some detail at the end.

For many years the Southampton animal bones have been separated into two great assemblages in time: there is the vast quantity of material from Middle Saxon Hamwic and the smaller but significant collection from the medieval town. Important distinctions have been found between the Saxon and the medieval animals (Bourdillon 1980 and 1988), but there has been no clear idea of how the herds and flocks evolved - or were replaced - to show such changes. The Late Saxon gap has been tantalising, and this gap is now beginning to be filled.

The Middle Saxon bones have shown an animal economy supporting good basic provisioning, with supplies of meat that were ample but dull, with large numbers of cattle and sheep that were generally of a very good size for their time but which from their maturity seemed reared not primarily for choice foods but to meet the prior demands of trade and of the countryside, for wool, for example, or for ploughing. Oysters were plentiful and there was domestic fowl and goose and sieving has recovered the vertebrae of many small eels; but there was little at all special in the diet and postcranial deer and wild birds were rare. Most butchery was rough and ready. The finds of animal bones were surprisingly uniform as between the different sites and indeed as between the different features: even after the Six Dials Variability Study (Bourdillon 1984) which looked for differing deposition by context-types, only minor differences were found in pits, wells, ditches and yards. There was nothing, for example, to correspond with the great contrasts in bone deposits from ditches and pits that was shown in Maltby's pioneering work (1979) for Roman Exeter.

By contrast the smaller amount of material from medieval Southampton was more varied: more varied in the range of species, more varied in animal ages and sizes and in the cuts of

meat. It was more varied, too, by site and by context, though the variety itself was various and one does not know exactly what produced it nor when such change began.

The movements of the people have been elusive as those of their animals. It is not known whether there was a gap in time between the ending of the town of Hamwic and the establishment further south of the new town of Southampton. Alternatively there could have been a single clear-cut move; or else a dwindling of the one centre and a dispersal of settlement across the wider area. Each hypothesis for the people would have had different repercussions on the animals, and one might hope to distinguish either the signs of steady transfer or of stop-and-start-again.

Recent work on the Late Saxon animal bones involved an examination of material from many different sites (Table 1). For every topic the results from all the sites are presented together for ease of visual comparison, and to avoid any prejudice as to the relative phasing the contexts in question are set out from north to south. They will be discussed , however, in the order in which they were studied, since the process of investigation has followed an interesting thread.

For ease of further comparisons results are given from the Six Dials Variability Study for the relevant context groups, the pits, the wells and the ditch, and also for the early years of the medieval town. Some of the results are obtained from manual records where some aspects of the bone condition (for example, chewing and erosion) were assessed for the assemblage as a whole; others come from groups where data have been computerised on the basis of the individual bone. Where direct figures are given they are fully compatible with each other, and nil records are explicit. Blank spaces are left in the tables for assemblages where validly comparable information is not available because of the methods of study and the form of recording of the immediate points at issue.

THE EARLY DITCH OF THE NEW TOWN:

Animal bones were found from the early ditch of the new town in sites SOU 117, 124, 125 and 129. All were from 10th century ditch contexts in the south of the peninsula, and it is likely but by no means certain that these were parts of a continuous circuit. In the opinion of the archaeologists the infilling of the ditch was quite quick, probably quite early in the tenth century, and the material may validly be taken as Late Saxon.

For the main food animals, the material in the ditch contexts from sites 117, 124 and 125 gave fragment weights (and most likely also fragment sizes) close to those from the ditch contexts on Hamwic Six Dials (Table 2). The species represention, however, was generally closer to the Hamwic standard for the

ordinary domestic rubbish pits than for the ditch (Tables 3 to 6). Of the less common species, dog was found and no cat, which indeed was some echo of ditch contexts found on Six Dials, but the moderately high representation of domestic fowl was much closer to that of the Hamwic pits. There was no wild bird at all. One could be looking at ordinary domestic waste thrown out perhaps in larger than usual lumps.

In the greatest contrast to this were the bones from the ditch on site 129. Only one context here (119) gave any bones at all, and these bones were few but very special. Of the domestic animals there was a fragment of horse and two fragments of pig; cattle gave 17 fragments with a mean weight far and away beyond what has been seen as standard even for a ditch (111.8 g, against 31.8 g from the other new town sites and 31.2 g for Hamwic). The distribution over the body was interesting for these cattle bones were of prime meat joints with no wastage. More interesting still were 5 large fragments from the meat bones of red deer. Post-cranial deer was very rare at Hamwic and was to be still quite rare in the early centuries of the medieval town; so these signs of good venision were altogether surprising. There was none of the usual domestic rubbish in the ditch contexts from site 129, and the impression rather is of lavish eating on a greenfields site. It is interesting that the impression of something strange is given also from the seed remains, for any sign of the normal domestic rubbish was lacking there as well (F. J. Green, personal communication).

SITE 30, F.1010:

Next to be studied was pit F1010 on Six Dials, which was included in the Variability Study as the latest pit at Hamwic which had by then been phased, though not necessarily Late Saxon as such. A small amount of other material had been grouped in the same phase and the study of all these bones had shown a marked increase in the ratio of cattle to pig, an increase found both by count of identified fragments and by weight; it had also revealed an interesting rise in the amount of careful butchery - either strong firm cuts into the thicker walls of shafts or straight precise cuts through the cancellous tissue. Careful cutting had been seen from time to time from all phases on Six Dials, but F1010 gave a very marked increase(Table 7). Provisionally this butchery was taken as the most likely indicator of later material from Hamwic, particularly if it was found in conjunction with a high ratio of cattle to pig and with a good amount of wild bird and fowl (which F1010 showed to some extent and its accompanying late contexts showed more strongly).

SCU 177, F 25

Next to be studied was the material from a well F 25 on Site 177, a site which was also in Hamwic but in the south of the town and not far from St. Mary's Church. This material was of immediate interest in that it contained a complete skeleton of a red deer and it had been for this reason that the assemblage was initiallly brought for examination and not for any thought of phase or date.

The deer indeed was special. Its articulated skeleton was complete; the skull was crushed, but all bones of the body were present including the feet. There were no sure signs of butchery , though there was one mark on the lateral surface of an astragalus which might perhaps have been from a cut - with other cuts to reinforce the interpretation one would have been reasonably confident in so describing the mark. The animal was young, with the second molars (both upper and lower) just coming into wear, with phalanges and proximal radius fused and with the distal humerus just completing fusion. It was therefore old enough to be a fair size and to offer a good amount of tender meat. Perhaps the animal jumped into the well and drowned unnoticed, but even so its presence there takes a great deal of explaining, for Hamwic does not seem to have been the sort of place where deer wandered round on their own. Perhaps the mark on the astragalus came from someone taking the carcase by a hind leg and carrying or dragging it into town, someone who had no right to do so and who suddenly and to avoid discovery was forced to drop the creature down the wellshaft? This cannot be proved, but such an episode is plausible; and they did not do such things in Hamwic's heyday.

At the very least the presence of a whole young deer betokens something rare and rural in the town, and other layers of the well were of major interest too. There were three bones of horse, a mandible in the fill of the shaft and two fragments in one of the construction layers (a fragment of pelvis buried fresh and an astragalus so eroded that to be found in association with the pelvis it must have come from some other individual). The construction layers also contained two fragments of dog - two individuals again, one with a pelvis that was huge by Hamwic standards and the other with a radius so small and so twisted that the animal must have been bandy. The little radius had been chewed by an animal with good substantial teeth. Both of these dogs marked a notable departure from the normal medium-sized mongrel type that had seemed to be universal among the Hamwic finds: either on its own would cause comment, and to find both together was very special indeed.

Sealed by the deer was a worked offcut of cow metacarpus in the usual Hamwic style, and many examples of the fine butchery, some most likely sawn, some firmly and precisely cut with blades, of a sort that is very rare indeed at Hamwic, and the top layer of the shaft again had much fine butchery and also two worked ofcuts of cattle metacarpus, one in the usual style and the other sawn vertically back and front which for Hamwic is rare if not unique. Added to these special occurrences there was

a good amount of bird, and a generous ratio of cattle to pig.

The feature was at once referred back to the archaeologists as being special, different, distinct. One was mindful of the later contexts from the Six Dials Variability Study, and mindful, too, of the wide range of species and of interest found by Grant (1975) and Eastham (1975) for the thegn's residence at Late Saxon Portchester, and the suggestion was made that this well could be considerably later than all the other features that had so far been studied from Hamwic; if on the other hand it had been contemporary, then the well at the very least must stand for something socially distinctive in a town which had so far proved to be so uniform. It was a mark of credit to the bone studies when a close examination of the pot pronounced that the well could indeed be Late Saxon.

SOU 177, F314

The next stage was for the archaeologists to look for further material from Site 177 which might also be Late Saxon. The only other feature which could be suggested was another well, F 314, where some pot that might perhaps have been Late Saxon was found in the upper layers. When the animal bone was studied from this there was agreement from the ratio of cattle to pig that the well group might indeed have been late, but in other respects the assemblage seemed standard for Hamwic, and the results are included in the present tables without prejudice to any interpretation of lateness: the archaeologists cannot be sure of this, and on animal bone evidence the question is better left until more late contexts have been found and studied before any final answer is attempted.

SITE SOU 111

Enquiries then traced a Late Saxon well from the new town (from Site 111, excavated in 1971). An archive has been produced for the animal bones from the wellshaft, the only group of bones that was kept from the site, but in the event the results have not been included in the present tables since there was found to be considerable medieval contamination, including very small sizes for sheep and some antler of fallow deer; although the well itself was dug in the Late Saxon period the finds from the different layers of its infilling had not been kept apart and with some manifest anachronisms the assemblage as a whole had to be treated as suspect and left out of the present discussion.

SOU 169, F 10675

This pit has recently been phased as the latest at Hamwic Six Dials and its bone has been looked at with care. There is a reasonable ratio of cattle to pig and a moderate to good amount of fine butchery, and these things are indeed being taken with increasing confidence to indicate the Late Saxon period at Hamwic. On the other hand the results do not echo the exceptional species interest of well F 25 on site 177, and perhaps it is a diversity between different sites and different features, rather than the strong uniformity which pervaded Middle Saxon Hamwic, which may prove to be the hallmark of the Later Saxon town.

SOU 175, LATE SAXON PITS FROM TRENCHES 1 AND 3:

Site 175 has been particularly interesting. In the north-east corner of the medieval town, it is outside the area enclosed by the early ditch but within that of the 14th century wall. Recent excavations have uncovered pits which are definitely Late Saxon in date, but it is not known how these relate in time to occupation within the area surrounded by the ditch. All the Late Saxon animal bone in these two trenches comes from pit contexts; no strong differences were found between the two trenches or between the various features, and for the purpose of this report the results have been combined into a single assemblage.

What is exciting here is the general correspondence between the species found on Site 175 and those of the 12th and 13th centuries in the medieval town (though site 177 is without the relative rareties, fallow deer and rabbit in particular, which came in the later years of that period). It would seem that in their range of species the germ of the medieval record is being foreshadowed by the Late Saxon pits of Site 175, either by virtue of the animals that were present in the area, dead or alive, or else through some changes from the Hamwic pattern of deposition which led to changes in the bone assemblages found in the pits: the mean fragment weight is considerably higher than for earlier pit deposition, and closer to that of the 12th and 13th centuries (figures which are based in the main on pit material). The measures of erosion and of chewing are also high (Tables 8 and 9). These conditions may only be assessed by reliable quantification when all individual fragments are recorded, and there are no other direct comparisons from the medieval town; but the difference from Six Dials is very marked. There is also the good rate of smooth butchery which is a concomitant of the later assemblages, though again without the bone by bone recording it is not practicable to make direct quantified comparisons for the other medieval sites. One distinctive factor at Site 175, however, is the relative frequency of the main domestic species. The cow to pig ratio is very high there,

particularly by weight, and unless this too is linked with changing deposition such a factor is hard to explain. Again, while the 12th and 13th centuries in Southampton were to be conspicuously plentiful for sheep, but the Late Saxon pits from site 175 are surprisly low. The possibility of some changes in the relative importance of these three species in the early years of the new town is an interesting factor which must be kept in mind.

THE CHANGING SIZES OF THE ANIMALS

A full measurement catalogue will be prepared at the end of the whole study when the remaining Late Saxon contexts have been examined. For the moment, however, there are two useful measures of comparison which may give serve to trace some fluctuations in the sizes of the animals - estimates of withers heights which are widely accepted as good general indications of stature (von den Driesch and Boessneck 1974), and also the system of Size Factors developed for the Southampton material as a general indication of robustness. With these, measures of bone articular width are percentaged on the relevant mean measurement from the large assemblage from Hamwic Melbourne Street which was published in the Statistical Appendix to the Melbourne Street report (Bourdillon and Coy 1980). The results for the present material are given in Tables 10 and 11.

The question of sample size is always of great importance for population statistics and too much heed should not be paid to minor variations, but seen broadly over time it has been the sizes of the domestic animals which have shown the most interesting pattern of change for the Southampton material, and where the question of what happened in the Late Saxon gap is most acute. As against the good Hamwic measurements, the 12th and 13th centuries showed a marked decline in the heights and in the breadths of the main domestic animals, a decline to be arrested for cattle and pig some time in the 14th century, with good increases thereafter, but a decline continued even through Tudor times for sheep (Bourdillon 1980). The implications of this are great and one has to ask if the start of such a fall-off came with some disruption to the flocks and herds in the move down the peninsula from Hamwic.

It is likely that changes in size would trace a pattern over time, and that at any one moment the people of Hamwic and of the new Southampton (if the two settlements were ever contemporaneous) would be drawing on similar flocks and herds if not indeed on the same ones. But it is hard to put the figures of Tables 10 and 11 into a coherent and likely order of contexts which does justice both to cattle and to sheep. For the early ditch, for example, the cattle seem like Hamwic stock and the sheep are down in size - was it changes for the sheep that started first?

Site 175 was not within the area enclosed by the new town's early ditch, but it has been predicted above (on other inferences from the bones) that its Late Saxon occupation foreshadows the important medieval changes, and on the sizes of both sheep and cattle the occupation on this site would seem (perhaps by a good many years) to be the latest on the present list. This could have big implications for the settlement pattern in the area and the archaeologists are bound to wait for confirmation - or otherwise; but if this particular interpretation turns out to be wrong it will be a daunting business to find any other rhyme or reason in this pattern of animal bones.

Much work on the bones has suggested very strongly that in Middle Saxon Hamwic the sheep were important for their wool; did such importance perhaps decline and the town change its function in Late Saxon times, with a strong wool flock not reasserting itself until some time after the start of the new town? Could the good sheep husbandry have been allowed to lapse with the general decline of trade which is known from other sources for late Saxon Hamwic and Southampton? One must not say that the great wool flocks were built up again the smaller sheep of which they were composed were any less suitable for wool, for the historical record shows the profound success of the trade, but continuity with Middle Saxon times had surely been broken - even after these present contexts have greatly added to the sample, no sheep measurement of height has yet been found which tops the Hamwic mean.

The cattle may have shown more continuity, but there seems to have been fall-off in size before the end of Hamwic; and size was important if the cattle were needed for ploughteams. Perhaps what really transpires from the various ups and downs is that they throw into good relief the strong practical achievement behind the provisioning of Hamwic in Middle Saxon times.

THE NEXT STAGE IN THIS STUDY:

The present report is by no means exhaustive, for the increase in the understanding of Late Saxon times in the Southampton area has meant that out of the great backlog of excavated animal bones further contexts may now be selected as highly relevant for study. The needs of publication must mean that a halt is soon to be called, but one particular group calls for urgent attention, that of the late pit F2048 from Site 31 on Six Dials. This pit is now thought to be Late Saxon, and since it is known to contain remains of the bone-working industry there will be a very particular interest in looking in good detail at its finds. When this has been done a full archive will be prepared of the Late Saxon bone that has been studied. In the light of new data the present interpretations will be checked, and with the benefit of a fuller measurement catalogue

metrical analyses may most usefully be undertaken.

Work has been taking place on the sieved remains which are available from some of the contexts dealt with in the present report; there is also sieved material from pit F 2048 and the wider examination and comparisons should be of great value. Such study is doubly important where a variety of context-types and of deposition practices has been found.

Work on the Late Saxon phases in Southampton grows more interesting and fruitful all the time.

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LIST OF TABLES

TABLE 1 : THE MATERIAL STUDIED

			identified frags
Hamwic	Six Dials Study	pits	8046
		wells	3297
		ditch	1513
Hamwic	SOU 30, F 1010	pit	975
Hamwic	SOU 169, F 10675	pit	2435
Hamwic	SOU 177, F 25	well	1013
Hamwic	SOU 177, F 314	well	374
new town	SOU 175, trench 1,3	pits	1379
new town	SOU 117, 124, 125	ditch	563
new town	SOU 129, c 119	ditch	25
new town	12th/13th centuries	mostly pits	3273

TABLE 2 : MEAN FRAGMENT WEIGHTS

OF CATTLE, SHEEP AND PIG (in g)

	COW	SHEEP	PIG
pits	18.9	6.0	11.3
Six Dials wells	20.4	7.5	10.8
ditch	31.2	8.3	16.4
SOU 30, F 1010	20.3	8.8	12.9
SOU 169, F 10675	21.4	7.8	12.7
SOU 177, F 25	22.3	8.3	13.7
SOU 177, F 314	28.0	10.0	10.0
SOU 175, trench 1,3	30.3	7.7	10.7
SOU 117, 124, 125	31.3	8.1	14.2
SOU 129, c 119	111.8	--	40.0
12th/13th centuries	30.9	8.8	12.2

TABLE 3 : RELATIVE REPRESENTATION OF CATTLE, SHEEP AND PIG

	% by fragments			% by weight		
	COW	SHEEP	PIG	COW	SHEEP	PIG
pits	49.1	36.1	14.8	70.8	16.5	12.7
Six Dials wells	58.3	27.1	14.6	76.7	13.1	10.2
ditch	59.9	26.4	13.7	80.8	9.5	9.7
SOU 30, F 1010	64.2	27.8	8.0	78.9	14.9	6.2
SOU 169, F 10675	57.4	30.3	12.3	75.9	14.5	9.6
SOU 177, F 25	54.6	34.2	11.2	73.6	17.2	9.2
SOU 177, F 314	57.3	36.1	6.6	78.2	7.6	4.2
SOU 175, trench 1,3	74.0	15.3	10.7	90.6	4.8	4.6
SOU 117, 124, 125	48.8	29.2	22.2	73.8	11.2	15.0
SOU 129, c 119	89.5	--	10.5	96.0	--	4.0
12th/13th centuries	44.8	42.8	12.4	72.3	19.8	7.9

TABLE 4 : CATTLE TO PIG RATIO

	by fragments	by weight
pits	3.3 : 1	5.6 : 1
Six Dials wells	4.0 : 1	7.5 : 1
ditch	4.4 : 1	8.3 : 1
SOU 30, F 1010	8.1 : 1	12.6 : 1
SOU 169, F 10675	4.7 : 1	7.8 : 1
SOU 177, F 25	4.9 : 1	8.0 : 1
SOU 177, F 314	8.7 : 1	18.6 : 1
SOU 175, trench 1,3	7.4 : 1	10.1 : 1
SOU 117, 124, 125	2.2 : 1	4.9 : 1
SOU 129, c 119	8.5 : 1	24.0 : 1
12th/13th centuries	3.6 : 1	9.2 : 1

TABLE 5 : IDENTIFIED FRAGMENTS OF THE LESS COMMON SPECIES
(from normal recovery in the trench)

	HORSE	GOAT	DOG	CAT	FOWL	GOOSE	DEER RED	DEER ROE	DEER FALL	WILD BIRD	OTHERS
pits	6	14	3	6	90	83		2		3	4 fish
Six Dials wells	50*	40		3	30	12	4	3		3	6 fish
ditch	16	36	11		6	3	1				
SOU 30, F 1010	2	2	2	4	17			1		2	1 fish
SOU 169, F 10675	1	12	1	35	29	8				3	3 fish
SOU 177, F 25	3	2	2		6	10	150*			2	
SOU 177, F 314		6			1	4				1	
SOU 175, tr.1,3	19	1	37	28	15	3				3	1 fox
SOU 117, 124, 125	1		8		16		2	1			2 fish
SOU 129, c 119	1						5				
12th/13th cent.s	19	20	18	40	157	36	4	1	1	19	3 hare 3 sm. mammal 3 hedgehog 2 rabbit

* skeleton

TABLE 6 : RELATIVE REPRESENTATION OF THE LESS COMMON SPECIES
(data in Table 10 per THOUSAND identified fragments)

	HORSE	GOAT	DOG	CAT	FOWL	GOOSE	DEER RED	DEER ROE	WILD FALL	WILD BIRD	OTHERS
pits	0.7	1.7	0.3	0.7	11.2	10.3	0.2			0.3	0.5 fish
Six Dials wells	15.2*	12.1		0.9	9.1	3.6	1.2	0.9		0.9	1.8 fish
ditch	10.6	23.8	7.3		4.0	2.0	0.7				
SOU 30, F 1010	2.1	2.1	2.1	4.1	17.1			1.0		2.1	1.0 fish
SOU 169, F 10675	0.4	4.9	0.4	14.4	8.2	3.3				1.2	1.2 fish
SOU 177, F 25	3.0	2.0	2.0		6.0	10.0	148*			2.0	
SOU 177, F 314		16.0			2.7	10.7				2.7	
SOU 175, tr.1,3	13.8	0.8	26.8	20.3	10.9	2.2				2.2	0.8 fox
SOU 117,124,125	1.8		14.2		28.4		3.6	1.8			3.6 fish
SOU 129, c 119	40.0						200				
12th/13th cent.s	5.8	6.1	5.5	12.2	48.0	11.0	1.2	0.3	0.3	5.8	1.0 hare 1.0 sm. mammal 1.0 hedgehog 0.7 rabbit

* skeleton

TABLE 7 : INCIDENCE OF SMOOTH BUTCHERY

	n	%
pits	32	0.40
Six Dials wells	4	0.12
ditch	11	0.73
SOU 30, F 1010	29	2.97
SOU 169, F 10675	38	1.56
SOU 177, F 25	30	2.96
SOU 177, F 314	3	0.80
SOU 175, trench 1,3	38	2.76
SOU 117, 124, 125		
SOU 129, c 119		
12th/13th centuries		

TABLE 8 : THE INCIDENCE OF CHEWING

(when assessed bone by bone)

	all		heavy	
	n	%	n	%
pits	346	4.3	66	0.8
Six Dials wells	175	5.3	26	0.8
ditch	73	4.8	23	1.5
SOU 30, F 1010	58	3.7	12	0.8
SOU 169, F 10675	210	8.6	83	3.4
SOU 177, F 25				
SOU 177, F 314				
SOU 175, trench 1,3	191	13.9	87	6.3
SOU 117, 124, 125				
SOU 129, c 119				
12th/13th centuries				

TABLE 9 : THE INCIDENCE OF EROSION AND BURNING

(when assessed bone by bone)

	EROSION all		EROSION heavy		BURNING all	
	n	%	n	%	n	%
pits	124	1.5	53	0.7	43	0.6
Six Dials wells	68	2.1	21	0.6	23	0.7
ditch	29	1.5	397	26.2	5	0.4
SOU 30, F 1010	68	4.4	36	2.3	2	0.1
SOU 169, F 10675	145	6.0	14	0.6	67	2.8
SOU 177, F 25						
SOU 177, F 314						
SOU 175, trench 1,3	186	13.5	35	2.5	22	1.6
SOU 117, 124, 125						
SOU 129, c 119						
12th/13th centuries						

TABLE 10 : SOME COMPARISONS OF SIZE FOR CATTLE

	WITHERS HEIGHTS in m		SIZE FACTORS %	
	x	n	x	n
Six Dials ALL	1.15	29	101.3	547
SOU 30, F 1010			100.3	26
SOU 169, F 10675	1.12	6	98.6	57
SOU 177, F 25	1.10,	1.10	97.7	11
SOU 177, F 314			102.0	3
SOU 175, trench 1,3	1.11	13	98.0	55
SOU 117, 124, 125	1.15	7	101.1	18
SOU 129, c 119				
12th/13th centuries	1.09	9	96.7	86

TABLE 11 : SOME COMPARISONS OF SIZE FOR SHEEP

	WITHERS HEIGHTS in m		SIZE FACTORS %	
	x	n	x	n
Six Dials ALL	0.62	42	98.7	561
SOU 30, F 1010	0.59, 0.59, 0.62, 0.64		99.3	33
SOU 169, F 10675	0.63	6	99.1	60
SOU 177, F 25	0.53, 0.56, 0.65		98.7	24
SOU 177, F 314			95.7	20
SOU 175, trench 1,3	0.59	6	97.0	12
SOU 117, 124, 125			97.2	11
SOU 129, c 119				
12th/13th centuries	0.55	22	98.5	110