

Table 10. Age Data (mandibles)

	Cattle		Sheep, goat		Pig
	I 2-3 rd	II/III2 3 rd -4 th	III1/III2		II/III2
dp4 unworn	-	-	A	-	-
dp4 in wear,	-	1	B	1, 1sh	-
M1 unworn					
M1 in wear,	1	-	C	-	5 (1F)
M2 unworn.					
M2 in wear					
M3 unworn.	3	3	D	1, 2sh, 1gt	4 (2M)
M3 in wear,					
posterior cusp 1 st cusp	2	5	E	-	7 (2F)
M3 in wear,					
pre stage g	2	-	F	3	2
M3 at stage g	-	1	G	1 ?gt.	-
M3 beyond g	3	8	HI	-	-

U - unworn; g - mature wear stage (Grant 1982); in wear - some dentine exposed (cattle, sheep and goat), wear visible on the enamel (pig); sheep mandible stages as Payne 1973.

For pig, sexed specimens are shown in parenthesis.

Table 11 (microfiche). Measurements

I late 9th-early 10th C; II 10th C; III1 10th/early 11th C; III2 11th C; IV late 11th/12th C; V 13th/14th C; VI Late Med.-14th C onwards (or 14th/15th?)

	Period	N	Range	Mean	SD
<u>Cattle</u>					
horncore Length outer curve (47)	I		138,143,145,149,151		
Basal circumference (44)		8	(120-179	137.4	
			(120-139, mean 131.4, (?all cows) plus 179 (male)		
max.basal diam (45)		9	41.5-49, mean 46.3 (?all cows) plus 62 (male)		
min.basal diam (46)		9	31-42, mean 35.7 (?all cows) plus 49 (male)		
47/44/45/46	IV		75/111/41/27; $\leq$ 100/122/42.5/35 (?both cows)		
L outer curve	VI	22	101-180	130.9	22.88
basal circumference		33	124-186	148.1	14.54
max.b.diam.		35	40-67	51.5	5.88
min.b.diam.		31	36-48	41.3	3.46
humerus Breadth Trochlea/HTC	I		64.2/29.9; 68/31.5; 71/31.6; 77.4/33		
HTC - Height of trochlea at central construction					
BT/HTC	III1		64.7/29.6; 65.0/29.4; 67.2/27.7; 71.0/35.3		
	III2		64.7/27.5; 73.7/31.7; 80/35.2		
	VI		64.5/30.2; 73/31.5		
radius Greatest Length/SD	I		258/37.0		
Breadth proximal		8	70.0-86	77.5	
	III1		66.9, 69.9, 72.6, 76.4, 84.3		
	III2	6	67-83.5	72.2	
tibia Breadth distal	I		54.7, 54.7, 55.9, 59.7, 63.2		
	III1	9	52.9-61.5	56.4	

	Period	N	Range	Mean	SD
	III2	9	51.9-60.5	55.4	
	IV		44.4, 51.0, 60.2		
astragalus GL lateral	I	6	56.1-66.1	60.8	
	III1		59.3, 59.6, 61.5, 63.2		
	III2		60.0, 60.5		
	IV		58.0, 59.5, 61.5		
metacarpal GL/Bp/SD/BFd/Dim	I		186/51.4/29.1/53.1/26.9		
	III2		182/57.1/32.8/60.1/29; 188/49.2/27.6/52.9/26.2		
	IV		168/51.0/29.2/52.4/26.1; - / - / - /57.7/27.6		
Bp	I	6	49.3-52.7	51.2	
	III1		48.3, 48.6, 57.4, 59.8		
BFd/Dim	VI		53.0/26.1; 55.8/28.0; 58.8/29.6		
metatarsal GL/Bp/SD/BFd/Dim	I		208/40.3/21.5/51.3/25.5; 216/ - /23.1/49/25.3;		
			223/47.5/25.4/54.8/ - ;		
			(distal unfused: 244/47.4/25.9/55.4/28.9)		
	III1		213/43.2/ - / - /25.6		
BFd/Dim	IV		45.8/22.4; 56.0/27.5; 60.5/30.6		

BFd - breadth of the distal articulation

Dim - depth of internal trochlea, medial condyle.

Sheep and Goat

horncore Goat Loc/max/min.b.d.	I	235/54.4/34.3	III2 - /34.3, 24.0
		c. 220/54 /34	V 148/32.5/20.5
	III1	125/30.5/19.5	
Sheep	I	- /54 /38	III2 160/45.5/28.5
		183/55 / 39	IV 190/39.5/ -
		- /38.6/27.8	

		Period	N	Range	Mean	SD
				IIII	- /47.5/36.6	
					- /26.3/22	
scapula	SLC	II/IV	8	18.1-24.7	20.03	
	GLP	10th/11th C	6	28.6-38.2	32.43	
index	ASG/SLC		8	0.79-1.15	1.048	
large specimen	SLC/GLP/Index	III2		24.7/38.2/0.79	(i.e. short-necked)	
humerus	(BT	I		(25.7 27.0 27.3 28.8		
	(HTC			(13.5 13.4 14.0 15.4		
	BT	II/IV	10	24.9-31	27.28	1.72
	HTC		11	13.0-15.7	14.12	0.85
radius	BFp	II/IV	7	24.1-28.7	27.43	
	Bp		6	26.5-32.5	29.73	
	GL/BFp/Bp/SD/	IIII1		14.8 /27.5/30.6/ 16.0		
		IIII2		133.3/25.4/28.0 /14.3		
				151 /28.7/32.5/17.5		
				157.5/30.1/ - /17.1		
tibia	Breadth dist.	II/IV	13	24.3-29.2	25.92	1.33
	Depth d. (taken parallel with the astragalus groove)					
			12	19.4-22.1	20.22	0.76
metacarpal goat	GL/BFp/SD/BFd/Dem.Dim	II		117.5/235/15.2/26.3/11.6/13.2		
	goat	IIII2		108.1/23.3/16.0/26.6/9.9/12.9		
metatarsal sheep		IIII2		125.5/ -/11.2/22.6/ - /13.2		
	sheep Bp/SD	VI		18.0/9.9		
ASG - length from glenoid to spine; Dem - depth of external trochlea, medial condyle.						

Pig

skull lacrimal L(21)/B(22) IIII1 28/23

M	Width Post.crown	III2	6	9.8-11.7	10.63	
1						
		Period	N	Range	Mean	SD
M	WP (Payne forthc)		9	12.1-13.9	13.03	
2						
M	(W Anterior			(14.2 13.9 13.4 14.2 14.4		
3						
	(Length			(29.3 29.4 30.2 32.1 32.4		
scapula	(SLC	I		(20.9 21.5 22.5 22.9 III2	(19.8 23.9	
	(GLP			(32.0 - 34.1 -	(32.8 34.4	
	SLC	III1	6	20.1 - 24.0	22.17	
humerus	(Bd	I		(38.6 39.6 40.3	III2 (36.0 36.3 37.8 40.5	
	(HTC			(19.0 20.4 19.2	(17.8 17.5 18.9 19.9	
radius	Bp(Payne)	I		25.9,27.5,28.0	III1 27.3,28.3	
		III2	8	25.3-30.8	28.0	
ulna	DPA	I		36.6,38.6	II 32.3	III1 33.2,38.5,40.0,40.0
		III2		33.6,36.3,36.8 (olecr.unf.),38.3		
tibia	(Bd(Payne)	I		(29.0 31.5	III2 (27.5 28 28.8 29 29.4	
	(Dd			(26.3 28.9	(25.6 - 25.8 - 25.7	
astragalus		I		40.1	III2 34.8	
metapodials	(GL	II		(mc IV 65.5	III1 (mc III 71.1	mt III 75.5
	(Bd			(13.8	(16.5	13.7

Horse

2nd phalanx L/BFp/SD/BFd 46.1/45/42.9/47.5

Dog

mandible cheek tooth row L 77

Roe deer

radius GL/Bp/SD

Period N 155/24.6/13.7
Range Mean SD

Fallow deer

metatarsal GL/Bp/BFp 210/25.6/29.0

Fowl

corocoid GL	III2/IV 7	48.6-57.5	52.34	
humerus GL/Bp/SC/Bd	III1	75.0/19.4/7.0/15.3	IV 61.1/17.0/5.9/13.2	
			61.3/16.9/6.3/13.1	
			63.1/16.7/5.8/13.6	
ulna GL	III2	71.6, 72.0, 74.2, 74.9	IV 73.3	
radius GL	III2	64.9, 65.6, 68.2, 70.7		
carpometacarpus GL	III1	33.3 (bantam-size)	III2 35.9, 37.3	
femur GL	III2	78.8, 79.9	IV 66.4, 69.9, 70.1,	VI 76.2
tibiotarsus GL	I	111.0	III1 94.2, 94.6, 100.4	III2 94.7, 115.4
	IV	92.8, 94.5, 96.1, 113.0		
	III1/IV 9	92.8-115.4	99.52	8.61 CV 8.6%
tarsometatars. GL/Bp/SC/Bd/Spur	III1	62.2/13.0/5.3/12.1/no	IV 62.7/11.6/6.0/11.7/no	
	III2	65.7/11.7/5.6/11.6/no	" 78.8/14.3/7.3/14.3/yes	L 20.0
	"	70.6/12.0/5.8/12.4/no	" spur L including shaft	28.4

Goose

corocoid GL	III1	64.5
ulna GL	III2	142
carpometacarpus GL	IV	80.8, 81.4
tarsometatars. GL/Bp/SC/Bd	VI	80.6/17.4/7.3/18.0

Duck (domestic/mallard)

ulna GL	78.9
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Measurements follow von der Driesch 1976 except where stated.

Table 12. Sheep and goat

	I		II		III1		III2		IV/VI		Total	
	Sh	Gt	Sh	Gt	Sh	Gt	Sh	Gt	Sh	Gt	Sh	Gt
Horncore*	5	2	-	-	5	1	3	1	-	1	13	5
Mandible	-	-	-	-	1	1	2	-	-	-	3	1
Metapodial	2	1	1	1	9	-	23	3	4	-	39	5
Total	7	3	1	1	15	2	28	4	4	1	55	11

For mandibles, see Payne 1985 and for metapodials see Lawrence 1980 and Boessneck et al 1964. *In addition one polled (hornless) sheep was present.

Norman Sites.

Site	Date	Cattle	Sheep	gt	Pig	Horse deer	dog	Fowl	gse	Ident.	Tot
		BN % Z MN								BN	N
	Prod										
Fwhergate	I 9-10 th	497 77	60 9	✓	85 13	642					
"	II 10 th	46 58	20 25	✓	14 18	(80)					
Whitkiss	I 10 th	52 55	32 34		11 12	(95)					
Fwh	III 10-11 th	350 57	142 23	✓	117 19	609					
Whitkiss	II 11-12 th	92 33	105 38		78 28	275					
Fwh	III 11 th	774 64	219 18	✓	223 18	126					
"	IV 11-12 th	178 53	90 27	x	66 20	334					
Whitkiss	III 12-13 th	412 46	269 30		216 24	897					
St Martin	I 11-12 th	1524 40	1102 29		1140 30	3766					
"	II 12-13 th	963 41	702 30		660 29	2315					
"	III 12-13 th	2040 39	1801 34		1433 27	5274					
(Fwh)	IV 13-14 th	8	7	✓	2						
Fwh	V late med	74	20	x	6	(152)					
St Martin	II 14-15 th	886 52	310 24		312 24	1308					
(Fwh)	IV 16 th med	14	15		10						