

- 488 sk - both max, pal; see age page; two halves of palate inf.
also, basal part of cranium, presumed part of same skull.
- 487 sk - sk fairly old, 11' flat wear, but pal. bone only partly fused to max, and the two
max are not fused together on the palate.
- 488 fe prox epiph only. The bone around the fovea is rough and irregular in an area c. 2.7×1.9 .
469 hc ?path. There is a ^{band} ~~area~~ 1-2 cm wide extending round the horn core near the base which
has a more open texture and is not as thick as the rest of the core -
? nutritional during growth (after $8\frac{1}{2}$ cm had grown normally, & well before
death, because the hc base is again normal).
- 302 fe path just the head part of the head of a femur. An area 28×8 shows polish,
one end of this area also bearing pit marks characteristic of osteoarthritis,
although there is no grooving or extra growth of bone.
- 381 sk. masses of fr., mostly old breaks. mni 4 (R squ. - curve of temporal condyle).
11 pieces on zone, 22 fr.
- ~~to~~ 80 small pieces, mostly old breaks, probably mostly cattle, though
some are certainly horse. Discast. - on unid.

Cattle, p.2.

Fragments

[illegible]

Minimum number
of individuals.

2 (cault.)
- inf. fe)

4. (prox R)

2 (calf, rest)

3 (calf, 200)

 $\beta(\text{calf, int})$ $+ 3\text{H}^+ + \text{CaF}_2$

100. 100. 100.

2 (calc) 2 (mm)
not ra

3182319-2
-hu
nest

...

to the

$$5 + 4hc + c^2$$

2 - teeth

6) 2 (teeth) α

Blank

04

Cattle Jaws & teeth

(tooth teeth)

0 = no wear, not Annie's wear stage 0

max & upper t in pencil.

feature	LR	I	2	3	4	m1 P2	2 3	3 4	M1	2	3	P2/P3 p.d.	Stage	Loose teeth i (m1,2) (m3) I P2,3 P4	M1 or 2	M3
622 488	L	R				w	w	w	>	>	8	✓ no	5			
622 487	R					\	\	\	>	\		✓ no	6			
"	L					\	\	\	>	>		✓ maybe				
"																
" 456																
639: 462																
637: 480																
" 458	R	\	\	\	\	\	\	\	\	\	bkn	5/6				
" 458	R?					(a)	(w)	(b)	\	\		4				
" 458	max more tooth wear					(w)	(w)	(w)	\	\						
440 457	R					\	\	w	\	\		5				
" 392																
397: 396												48				
259 235																
" : 220	R					(1/2)(a)	(a)					2				
337: 302	R					(1)						14				
" 314																
628 317	R											10				
" L						bkn	bkn	E	\	bkn	\					
" 318						(w)	(w)									
" 281																
484 461																
454 L									\	l	g	45e				
" 431	L															
" R																
" L						(1)	(1)		\	\		2				
528 509																
436 381	R					x	w		>			5				
" L									>	>	g	14e				
" R						(w)	(w)	(j)	e	\						
" L								(b)								
567 566	L					\	w	f	k	j	g	✓	41			
570 116																

Friesian - cf. (Brown) 27 mo. v.w.

P4 path (622)

10 Grantable + 5 Hamwhable + 14 teeth & 1 Brown.

Stages	1	2	3	4	5	6
Hamwh	1	1	1	1	1	1
1						
2						
3						
4						
5						
6						

Grant: 2, 4, 10, 14, 14e, 24e, 41, 45e, 48.

10(4+10) = 20

hc, skull, over.

M3 length (381)
 scap. Lg 59.4
 SLC 41.0

hu BT (462) (396) (396) (396) (318)
 75 63 69 64 76

$$347 \div 5 = 69.4$$

ra GL (458) (451)
 Bp 72 76.4
 SD
 Bd

no. art. w.
 with carpal

pel. separate
 all separable pel.

fe. GLC

SD

Bd

(392) (431)

tib

GL

Bp

SD

Bd

84

53.5

calc

GL

(396)

(431)

133

109

aotr.

GL

GLm

Bd

(462)

(392)

(319)

(461)

70

65.6

61.8

54

-

59

56.1

48.4

45

41

39.2

36.1

mc

GL

Bp

SD

Bd

(529)

(487)

(456)

(462)

(482)

(457)

(319)

(431)

195

203

55.4

62.0

30.4

35.1

51

54.9

62.9

59

52.3

48.1

51.8

57

54

47.3

29.4

30.5

33.4

32.4

28.0

(487)

(462)

(396)

(431)

(431)

mt

GL

Bp

SD

Bd

227

49.6

27.2

57

53.8

48.7

48.4

54

52.5

44.8

43.8

Fock's figures, intermediate male & female

Height Estimator (v.d. Driesch & B. 1974)

$$195 \times 6.125 = 1.1944 \text{ m}$$

$$203 \times " = 1.2434$$

$$328.1 \div 6 = 54.7$$

$$227 \times 5.45 = 1.2472 \text{ m}$$

$$207.9 \div 4 = 51.98$$

max. distal
 diaphyseal width
 (Higdon)

Dd

phal 1st GLC

Bp

I can't tell them apart.

don't do.

phal 3rd DLS

Castle, Mead, cont.

1/2 2

hc.	(469)	(392)	(381)	(381)	(381)	(381)	(381)							
L outer curve	110	2c.8cm	90	101	c.100 (close)	5 1/2 cm survivors	4	90-110	M 100	much <	Exeter ones			
Basal circumf.	119	109	104	102	111	109	6	102-119	109	654	- ? all cows.			
bas. diam. max.	44	39	36	35	40	36	39							
min.	31	31	31	29	30	26	30							
→ Index	705%	795%	86%	83%	75%									
see Photo 1982	4	3	3	3	3	3								
I Age	adult	3or4	3 young adults	3	3 (on young side)	3								
II Length	2	1	1	2	2	2								
III curve	3 or 4	straight	cve	cve	curve (v. slight)	2, 1 expect.								
IV tip	? 2	-	? pointed	v. pointed	-	-								
V sex	? ♂	-	? ♀	? ♀	? ♂ or ♂	-								
horn direction of	to difficult to describe				(small tho)									
p	none		skull ch through skull below horn core.	one fine k mark at hc base.	none	none	none							

this drawing of round & pointed.

the 'round' one is more pointed than the 'pointed'!

✓ Cattle. Butchery Notes.

Cattle

Bones with p marks were separated and looked at together (at the end.)

hcs Two have small ? knife marks, ^{probably from removal of the horn sheath, though they could be from skinning.} The other four ^{others} were unmarked, though it is unlikely that the horn was not utilised.

They are all small - ? female, a bulls & oxen hcs elsewhere. Smaller than Thetford hcs. Smaller than Exeter - Table 67

Skull. In three cases the mandible had been chopped through below the condyle. Other ^{surface} marks on adult mandibles were probably done when the meat was removed.

A calf mandible chopped through the jaw in front of the premolars. ^{and a zygomatic process,} just ~~one~~ molar bone sliced through very cleanly, which seems to indicate that the mandible was detached from the skull. ^{So what.}

sc. few B.

hu. ^{all} Some but ^{not} all humeri were chopped on the distal joint, probably done when disjuncting the carcass (5 so chopped, 3 not).

All the surviving hu¹¹ were chopped through the shaft, probably for marrow extraction. Most were chopped just above the distal articulation.

Only one proximal end survived, which was chopped, indicating separation the 'scapula' from the rest of the front limb.

radius, ulna. - seem to have been chopped through for marrow. The olecranon seems always to have been cut off, in separating the elbow joint.

pd. ^{and fe} There were few pelvis or femora. Certainly in some cases, the few ^{one} ch through mid shaft like radius. ^{patella} (one ch mark on posterior surface).

Three proximal tibiae and a distal femur were chopped through the cancellous bone near the knee joint - presumably from disjuncting rather than marrow extraction.

Bones were broken with a very sharp but unevenly sharpened heavy knife or cleaver. A few complete mps.

(Some of the calc & astr. were ch right through)

Small knife marks on the distal end of metapodia (3) and phalanges ⁽³⁾ may be from skinning, which means that the hide on the lower leg was used, or from removal of the tendons (one use of which was in making crossbows, McGregor p.c.).

rt. Splitting of the carcass into sides seems to have been practised, though it was not the universal practice as it is now. Seven vert were chopped through roughly sagittally.

Ribs. (Ribs were not identified to species level but doubtless most of the ribs are cattle). Most were chopped into pieces 8-16 cm ^(30 ft 16cm) in length, which is less fragmented than ribs from Roman sites in the water experience.