

	hc	skull	mx	md	Teeth	sc	hum	rad	ul	il	isch	pub	isch	pub	femur	patella	tibia	fibula	total
hc	2																		2
skull		2																	2
mx			2																2
md				2															2
Teeth					15														15
sc						10													10
hum							8												8
rad								4											4
ul									3										3
il										1									1
isch											1								1
pub												1							1
isch													1						1
pub														1					1
femur															6				6
patella																1			1
tibia																	9		9
fibula																			0
total	2	2	2	2	15	10	8	4	3	1	1	1	1	1	6	1	9	0	43

(whole aret
 pod, ps, sd bones
 (in atooth
 t fused - in wear) b fusing.
 o not fused rad. b - end of bone fused, but
 o ep " epiphysis ulna not fused to radius.

R9F08

Notes

Separated

- A/SW ④ 1 ♂ md stage 6. chopped several times, c.10, lateral side
 ♂ " " 4 " further back than M₃, thru. bone
- " 2 path. pelvis - pubic part of acetab. There is a foramen 8 x 2 mm. parallel to and 8 mm in from the acetabular border at the point where the pubic and iliac parts of the acet. fused.
- " 3 old mt the two d. condyles are more unequal than usual. The lateral condyle is 3 mm shorter than the medial. Muscle attachments are pronounced. ? old.
- " 4 skull fragments. Much of basal & occipital area, presumably one skull, ²¹ many pieces, both 3yr. & 3yr. pr. of malar bone, 2 maxillae - L & R, matching, one hc (fragmentary)
 2 x L & R palatine bones → 2 skulls present; also 2 a R & L bas mal bone which do not match, by size. at least carefully collected.
 21 major pieces, 18 smaller but identification certain, 106 smaller pieces. - Some, at least carefully collected.
- J63 ⑥3 1 ♂ sc. head, chopped ? spine ch. off; 2 ch. marks on glenoid cav.; ch on anterior border of neck, 3 cm long cut.
- " " ♂ " has same 3 ♂ characteristics, plus a hole in the blade of Schmid Atlas, p 43. It is on the medial inside that the bone has flaked off round the hole. Sc. is not complete.
 Also scratches on medial side, & gnawed distal tip of blade.
- " " path " There is a ^{usual} depression in the centre of the glen. cavity. Cf. Baker & Brathwell 1981, 110 fol. similar signs of blade.
 " " " spine ch.; small ch. ant. border of head; (glen. missing); blade broken but a hole having been made, jagged edge on med. side; knife mks medial blade.
- " 2 ♂ calc. 5 ch. on posterior
- " ⑥4 1 hu shaft, new break both ends - marrow not used.
- " " 2 ♂ phl 3 knife marks on dorsal side. ? skinning. They are quite slight.
- J63 ⑦4 1 ♂ md 3 small ? knife mks post., below condyle.
- " " " md 20 or so ? k. mks, as above & on buccal side of md.
 preservation 1 + missing + several pieces of condyle (modern breaks without matching pieces).
- G661 1 pel. R & L, fused; pub symphysis pubis unfused; not f. to sacr.; no marks; substantially complete
- b ⑦69 1 ♂ phl 2 k. mks across shaft, ventrally.
- 1958-6 2 path hu two areas, on the shaft just above the distal condyles (anterior), have a woven appearance.
 ④55 the surface is slightly raised. looks periosteal.
- 1958-35 ④52 2 ♂ phl transverse k marks prox - ant & post; and mid shaft - ant. ? skinning.
- 1957 WS ⑦0 3 ♂ mc ten heavy ^{transverse} chops on shaft near p end, ventrally.
- 58 20 ④64 4 ♂ phl 4 roughly transv. ch or k marks (how can you tell?) mid shaft dorsally.
- B57 W/S with 5 age hu imm. GL without epiph. 110. Same size as my NW72 calf.
- " 6 ♂ phl 2 k marks trans?, middle of shaft ventrally.
- F61 1 ♂ sc no marks on head or neck, long scratches medial ^{surface} of blade.
- " ♂ sc part of blade (probably from ↑) showing jagged break mid blade, perhaps done when fresh -
 ? mark made from fore joint being hung.
- " 2 ♂ md ch behind condyle
- " 3 ♂ sc blade has no hole (cf. Smid); ch on medial side blade & on spine, though the spine is not ch. off.
- " 4 ♂ sc ch on beginning of spine
- " 5 path mt There is some alteration of the proximal, medial facet. Part of the prox, lateral facet is overlaid with a thin layer of bone which shows some polish. There is no exostosis around the prox joint surface. Bob says slight - may not have been lame.
- " 6 ♂ sc k/ch mark medial side of blade. The implement had a square end, 1.0 mm thick.
- " 7 ♂ tel central + 4th tarsal, ^{distal} surface chopped away - separation of leg joint here
- H61 572 1 mt bone surface fairly rough. ? elderly. Also, there is a shallow irregularity c10 x 3 mm long on the distal medial condyle.

RQF09

CATTLE, cont.

[illegible]

CATTLE JAWS & TEETH

g - mature wear stage - Grant.

Upper teeth w - in wear; < - <g; g; > - >g, i.e. pulsat in wear.

mx, md
upper wear
u, l tooth

L R I 1 2 3 4 P 2 3 4 M1/2 1 2 3 N.v. Stage

F61 A/SW 63 * md R (w)(w)(j) 12 9 2 g d v 23 3
" md R / 12 16 15 l k k 46 5
" md R E (v) 12 11 7 g f b 30 4
" {mx R same individual. w > > > } mx 5
" {mx L w > > }

J63 63 md L a w c 15 14 12 k j g 41 5
" md fr. R / un-worn. 5 or 6
" Lt. 4 est

" 64 Lt R >
" 74 md R a w c 15 14 12 k j g 41 5 } look a pair.
" md L / / / / / / c k / g
" Lt. g

961 661 md R / / / 32-39 5 est
" Lt. w > left j 5e
" Lt. ?(d.i) w

57 villa md R (w)(w)(j)
" md L (a)(w)(c) /
58 433 Lt. <
58 416 Lt. (no wear)

I62 67 BA Lt. wearing > flat.
I62 78 BA md L (a) /
" 78 BA Lt L (g)
" 80 BA Lt (w) ✓
" 99 ? Lt no w.

" 107 1A mx Lt k 1st cuop < in w. mx 2
" 120 lake neo md R b - (could be T1, not T2)
" 119 lake neo Lt g

F61 493 * md R / / / / k j 5
" Lt k 5 or 6 } 2 mdia.
1959 292 md L (v)(1/2)(b) 1 Dp3 u u enamel only.

J63 34 Lt <
F61 495 Lt L mt 6 island of 2nd cuop 1/2 gone; worn below enamel on 3rd cuop.

F61 496 Lt L (a) 1
H61 571 mx > > mx 5 2 matching t, no maxilla fragments.
H61 572 Lt w

Stage	1	2	3	4	5	6	Min. loose No. of teeth	11. md.
1	1e	1	1	1	1	0	2 (+1)	
2	1e	1	1	1	1	0	1	
3	1	1	1	1	1	0	1	
4	1	1	1	1	1	0	1 (+1)	
5	1111	1	1	1	1	0	5 (+2)	
6	1	1	1	1	1	0	0 (+1)	

4/10 mandibles have adult dentition,
5/10 3rd molar in full wear.

hc	(J63 163)	(57- 1322)
L outer curve	-	c.176
Basal circumf.	160	c.176
Max bas. diam.	59	65
Min. bas diam.	46	47
→ Index		
I Age	(2) porous	(2) porous
II L. group	(2) or (3)	(3)
III curve	cve.	cve
IV tip	-	? pointed
V sex	? ♂	? ♂
direction of horn	(out/ fwd)	out/ down

scap. Lg	(J63 63)		(J63 74)
SLC	40	52	63.5
hum. BT	(J63 63)		56
	73		

rad. GL	(J63 64)	(J63 64)	(63.8)
Bp	74	-	69
SD		35.0	
Bd		(ulna fused)	

pel.		(A/SW(4))	(57-1)
fem. GLC		312	
Bp		-	
SD		31.3	
Bd		85	c.78

tib. GL	(J63 63)	(J63 74)	(9661)	(F61 572)
Bp		not red deer		(480)
SD				
Bd	c.65	51	53.6	57

calc GL	(J63 63)	(661)	59-10	(H61 572)	(F61 604)
astr. GL	70.2	69	59	64.8	62
GLm	63.3	64.4	small 52	58.4	58
Bd	44.1	47	39.0	40.4	39.4

mc GL	(J63 63)	(J63 64)	(J63 74)	(57- villa)	(57- W/S)	(F61 578)	(H61 572)
Bp	50.0	51.9	31.0	50.7	53	51.4	63
SD			56.1	(looks mature)	30.0	28.5	24.8
Bd					56	62	50.6

mt GL	(A/SW(6))	(A/SW(6))	(J63 63)	(J63 64)	(J63 64)	(57- villa)	(F61 480)	(H61 572)
Bp	203	233	206	226	217	217	218	
SD	48.3	-	-	46.1	41.4	47.0	50.2	
Bd	31.0	28.9	24.6	24.0	23.9	59.0	28.8	
				long & slender			61.4 Dd.31	
1st phal GL peripheral	(A/SW(6))	49.4	59.7	49	48.3	52.7	58.152	(57 us villa, E, ii, iii)
Bp	56	a 55.5	63	a 56	57	a 56	a 58	a 55
3rd phal DLS	(58-10 54 small)	28.8	30.1	32.1	26.5	34.1	26.0	32.0
							30.5	25.2
							24.1	26

a - anterior } using r.d. Driesch
p - post. } 1976. No idea how true.

c. approximately, but within 5 mm or less. useable

e " ± 2 mm.

no 1/10 place - to 1 mm.

RGF 12

$$(9445 + 4673) \div (8 + 4) = 14118 \div 12 = 1177m$$

$$\times 6.125 \rightarrow 1225 + 3448 \rightarrow 4673 \div 4 \rightarrow$$

$$1.168m$$

$$\times 5.45 \rightarrow 1220 + 8225 \rightarrow 9445 \div 8 \rightarrow$$

$$1.181m$$

$$\rightarrow \text{mean } (1509 + 224) \div 8 = 216.63$$

Plus 1982: mc
mt

200

224

Height estimates Fock 1966

$$mc GL 193 \times 6.125 = 1.182m$$

c.187 vs

1.145m

183 vs

1.121m

$$3448 \div 3 = 1.149 \text{ metres.}$$

$$mt GL 203 \times 5.45 = 1.106 \text{ at shoulder}$$

233

1.270

206

1.123

226

1.232

217

1.183

206

1.123

218

1.188

$$1509 \div 7$$

$$8.225 \div 7 = 1.175$$

$$\text{Mean} = 215.57$$

$$\text{Mean of all 10} = 1.167$$

$$R 1.106 - 1.270$$

(femur GLC 312 x 3.47 = 1.083 - below range

- does large ram Caput ans mean GLC ?? - discount)

$$GLC 59-70.2 \text{ Mean } 325 \div 5 = 65.0$$

LeG RB

SHEEP/GOAT

		F61 4/5W	J63	J63	J63	J63	961 = 961	Rest of 1957-1959	F61 Summary	H61	I	M
hc GOAT R	L											
hc SHEEP R	L											
	R											
Skull both	L											
max	R											
	L											
md	R	16 15 1										
	L	14 18 1E										
teeth		1										
sc (neck present)	R											
	L											
proximal												
R. shaft												
hum. distal												
	P											
	L											
	S											
	D											
	P											
R	S											
radius	D											
	P											
	L											
	S											
	D											
ulna	R											
(p. art. a.)	L											
	D											
R isch												
pelvis pub												
(acetab) diam												
L ischium												
pubis												
	P											
R	S											
femur	D											
	P											
	L											
	S											
	D											
	P											
R	S											
tibia	D											
	P											
	L											
	S											
	D											
patella												

Goat - no hc

Sheep hc

sk 2 polled

mx 1

md 16

t 9

sc -

hu 2

ra 1

ul

pe 2

fe 2

ti 9

RGF 13

5 fairly complete bones - > 1/2 present

781 1 ti

200 57 villas 1 mt

F61 578 1 sk

as large lengthwise as my rac but wider. GL c 205

young. Length w/o d. epiph. 91 mm. quality of bone prox end immature.

definitely no proper horn, though there may have been a small spur - that part of the skull is missing.

separated

SH/GT

[illegible]

fr. zone total. $4+5 = 9$ bones quite complete ($> \frac{1}{2}$)

Fragment.

[illegible]

hc sheep	1	1
sk	1	3
mx	-	1
md	2	18
t	-	9
sc	-	-
hu	-	2
ra	3	4
ul	-	-
pe	4	6
fe	3	5
ti	6	15
cpl, tst	-	-
mc	-	1
mt	1	5
phal	-	2
vert	-	-

SHEEP/GOAT JAWS & TEETH

/ - tooth lost post mortem
maxillae in pencil

Calculus - none
sl slight
m medium
s severe. B & B 1981, 151
Categories not defined

maxilla
mandible
tooth

	max mandibular tooth	L	R	I	1	2	3	4	P	2	3	4	M1/2	1	2	3	N.e. Stage	Periosteal Disease	
F61 A/SW (4)	md	L			/	/	/	/	/	w	g			12 g		8 c	32	4	no
"	md	R					/	/	/	w	f			14 g		f	37	5	no
"	md	R			/	/	/	/	/	w	k			16 e		/	27e	6	wr M1,2 flat.
"	t	L													e				
J63 [63]	md	L							w	w	h			j	g	g	38	6	no
"	md	R	no teeth						/	/	/			/	/	/			yes - p.d. round P4/T1, absorption of hooker old. some bone lingually.

feature LR 1 2 3 4 P2 3 4 M1 2 3 Stage N.e. p.d. Comment

Teeth
L m1,2 m3
I P2,3 P4 L R
M 1 or 2 M 3-
L R

F61 A/SW (4)	L	/	/	/	/	PW	sl	sl	sl	calculus	E	no
							f	g	g	g	32	
"	R	/				(P) PW	f	g	g	g	F	no
							f	j	g	f	37	
"	R	/	/	/	/	(P) PW	m	f	g	f		diffic to say
							hor	l	g		40e	yes
							E-I	F-G	E-G			

p.d. P4/M1 both sides, most severe buccally - resorption of alveolar border and periosteal growth of bone P4-M2.

J63 [63] R	L	no teeth	PJ	PW	g	g	g	g	g	38	
------------	---	----------	----	----	---	---	---	---	---	----	--

J63 [64]		(m)	PV	PE	1/2	12	11	7	6	F	no	M3 1st c w before 3rd has erupted.
----------	--	-----	----	----	-----	----	----	---	---	---	----	------------------------------------

Q 61 = 661												
57 villa	R	/	PW	sl	sl	sl	sl	sl	sl	E	no	
										32		
"	"	R	/	/	/	/	/	/	/	F	no	yes slight P4/T1 resorption of bone bucc and lingual side.
										35		
"	"	L	/	/	/	/	/	/	/	38		

857 w/s(villa)	R	w	w	w	g	g	g	g	g	30	no
(E i, ii, iii)	L	a	w	e	g	f	b			E	

57 327 [205] R		m	m	m	g	g	g	g	g	D	
(square brackets)		PW	PW	k	g	b				19	

I 62	3											
I 62	66											
I 62	77											
"	"											
"	78	L										
"	79											
"	80											
"	128											

BA

Not RB

late neo.

sl sl

/ PW j

sl -

m 16

16 17

est 3

H estimated

Hor I 44e

slight, buccal side.

Upper in pencil
i m1,2 m3
I P2,3 P4 R
L R
M1 or 2 M3
L R
(probably one jaw, tho the + are not adjacent)
(not one jaw and not part of same jaw as I 62, 3).
WV
unworn ✓
g ✓ < ✓
a? ✓
FF ✓ U ✓
13

Method as Erbank, Grant & Payne, followed as closely as poss.
m - deciduous premolar. why say decid molars? Slissen doesn't, no human bks.
x (4) - tooth broken (whereas, in Grant - used for cattle) (1) means deciduous tooth
/ - alveolus present, tooth missing (post mortem). RQF16
Teeth. U = unworn (in jaws U means + almost full height but unworn.)

Sh/gt Jaws & Teeth

Jaws Max/Mac in pencil

feature L R I₁ 2 3 4 m₁ 2 3 P₂ 3 4

M₁ 2 3 Stage p.d.

Loose Teeth Upper - pencil
i₁ m_{1,2} m₃ M₁ M₃
I P_{2,3} L P₄R or 2 L R

H61 490	L		/	/	/	-	-	-	F	no		
						g ₁₂	f ₁₁	e ₁₀	33		g	<
H61 543						sl	sl	m _{sl}			g	f
H61 555	L					m _W	m _W	g	Cest.	-		
									8-12 est			
										? say 10 e (from Grant 1982)		
H61 572												
H61 583	L					/	g	d ₁	F			
									33e			
F61 574	R					/			g			
							j ₁₄	g	38			
" "	R					w			g			
							k ₁₅	g	37			
1959 263												

15 jaws.

g in upper teeth is awkward, because that  but doesn't wear down for some time - g in upper ? starts a good while later, than in lower teeth. I'm recording this stage as g.

RQF17

Sheep/goat Measurements. (μ)

as v. d. Driesch 1976.

(58-63
1465)

hc Loxeter curve

c72

basal circumference

74

max basal diameter

31_{sheep}

min " "

16

There is a slight depression on both sides of hc.

sc.

to be repeatable, measure to 1. mm?

hu

BT

ra GL

Bp

SD

Bd

fe GLC

SD

Bd

ti

J63

63

781

1493

GL

(6205
don't use,
but v. long)

Bp

SD

16.7

Bd

23.9

27

22.2

astr GL

GLm

Bd

calc

GL

mc

GL

Bp

SD

Bd

mt

J63

74

59.7

321

GL

128

122

Bp

19.0

16.7

SD

10.8

9.8

Bd

23.5

20.4

(57vill)

58452

lot phal GLp

34.5

29.4

Bp

11.7

9.6