Appendix 1: fields in COW03_animal_bone

Field	Field Name	Description
1	PHASE	Context phasing derived from stratigraphic reports - see Appendix 1.1
2	SITE	Site code - BUR06 or BUR07
3	GROUP NO	Stratigraphic group number - see Level III archaeological reports
4	CONTEXT	Context number
5	DESCRIPTION	Context group description
6	QUANT	Number of fragments
7	FLOT/GRID	If recorded as derived from flotation sample, or if grid square recorded on bag
8	SPECIES	Species - see Appendix 1.2
9	BONE	Bone code - see Appendix 1.3
10	ELEMENT	Element name
11	LFT	Left fragments (0/1)
12	RGT	Right fragments (0/1)
13	LPF	Left proximal fused (0/1)
14	LPNF	Left proximal not fused (0/1)
15	LDF	Left distal fused (0/1)
16	LDNF	Left distal not fused (0/1)
17	RPF	Right proximal fused (0/1)
18	RPNF	Right proximal not fused (0/1)
19	RDF	Right distal fused (0/1)
20	RDNF	Right distal not fused (0/1)
21	CHOP	Number with chop marks
22	CUT	Number with cut marks
23	CHEW	Number gnawed
24	CHTYP	Chew type: rodent (R), canid (C)
25	COND	Condition of bone (1-6) - see Appendix 1.5
26	ERO	Level of erosion (1-3) - see Appendix 1.5
27	BURN	Number burnt
28	FBRK	Number of fresh breaks
29	SIZE	Proportion of fragment (1-5) - see Appendix 1.5
30	ZONE	Zone or non-zone (0 = < 50% or 1 = > 50%) - see Appendix 1.4
31	MALE	Number sexed as male
32	FEM	Number sexed as female
33	NEO	Number neonatal
34	PATH	Number pathological
35	BUTCH	Evidence for butchery (0/1)
36	PF	Proximal fused (0/1)
37	PNF	Proximal not fused (0/1)
38	DF	Distal fused (0/1)
39	DNF	Distal not fused (0/1)
40	NOTE	Additional information - see Appendix 1.6

Appendix 1.1: Phase codes (field 1)

IA/RB	Iron Age/ Romano-British
AS	Anglo-Saxon/ Anglo-Scandinavian
MED/MOD	Medieval/ Modern

Appendix 1.2: SPECIES codes (field 8)

1	Cattle (*Bos* f. domestic)
2	Sheep (*Ovis* f. domestic)
3	Sheep/goat
4	Goat (*Capra* f. domestic)
5	Pig (*Sus* f. domestic)
6	Dog (*Canis familiaris*)
7	Horse (*Equus caballus*)
9	Hare spp.
11	Cat *(Felis* f. domestic)
14	Badger (*Meles meles*)
17	Fox (*Vulpes vulpes*)
21	Bird (other)
23	Large-size mammal
24	Medium-size mammal
25	Small-size mammal
26	Microfauna
28	Amphibian spp.
31	Common frog (*Rana temporaria*)
32	Common toad (*Bufo bufo*)
42	House mouse (*Mus musculus*)
43	Wood mouse (*Apodemus sylvaticus*)
45	Common shrew (*Sorex araneus*)
50	Water vole (*Arvicola terrestris*)
51	Field vole (*Microtus agrestis*)
58	Crow/rook (*Corvus corone*/*C. frugilegus*)
75	Moorhen (*Gallinula chloropus*)
81	Domestic fowl (*Gallus gallus*)
83	Domestic goose (*Anser* f. domestic)
85	Wild/domestic goose
95	Herring gull (*Larus argentatus*)

Appendix 1.3: BONE codes (fields 9-10)

Bone	Element
102	Horn core
103	Occiput
104	Skull fr
105	Maxilla
106	Mandible
107	Mand fr
108	Hyoid
210	Tooth
212	Lower canine
213	Lower d4
214	Lower M3
312	Scapula
313	Scapula fr
414	Humerus C
415	Humerus P
416	Humerus D
417	Humerus br
418	Humerus fr
419	Radius C
420	Radius P
421	Radius D
422	Radius br
423	Radius fr
424	Ulna
425	Ulna shaft
526	M/C C
527	M/C P
528	M/C D
529	M/C br
530	M/C fr
631	Pelvis
632	Pelvis fr
633	Sacrum
735	Femur C
736	Femur P
737	Femur D
738	Femur br
739	Femur fr
740	Patella
741	Tibia C
742	Tibia P
743	Tibia D
744	Tibia br
745	Tibia fr
847	M/T C
848	M/T P
849	M/T D
850	M/T br
851	M/T fr
911	M/podial
922	Astragalus
923	Calcaneus
924	Carp/tars
925	N. cuboid
935	Phalanx I
936	Phalanx II
937	Phalanx III
948	Vertebra zone
949	Vertebra
958	Rib zone
959	Rib
960	Uni Lbone
961	Unident

Appendix 1.4: criteria for ZONE (field 30)

Zone	Criteria
horn core	>50% of base (tips recorded as <50%)
antler	>50% of burr (all further fragments recorded as <50%)
occiput	>50%
zygomatic arch	>50%
premaxilla	>50%
mandible	three adjacent teeth or sockets
mandibular fragment	anterior area with incisor sockets or condyle with coronoid process
loose teeth	>50% of any tooth
hyoid	>50%
atlas	>50%
axis	>50% cranial articular surface
vertebra	>50% of centrum
rib	>50% of articular end
scapula	>50% of the glenoid fossa (also if articular surface just missing due to dog gnawing)
humerus	>50% of proximal or distal articulation or the foramen nutricium (caudal)
radius	>50% of proximal or distal articulation or the proximal area of the ulna scar
ulna	>50% of the 'beak'
scaphoid	>50%
semi-lunaire	>50%
capitatum	>50%
pelvis	>50% of the acetabulum (unfused parts as <50%)
sacrum	>50% cranial articular surface
os penis	>50%
femur	>50% of proximal or distal articulation or the mid-shaft foramen (laterocaudal)
tibia	>50% of proximal or distal articulation or the distal end of the anterior crest
fibula	>50%
calcaneus	>50%
astragalus	>50%
navicular cuboid	>50%
metacarpal/metatarsal	>50% of proximal or distal articulation or >50% of the shaft cylinder
phalanges 1-3	>50% of proximal articulation

Appendix 1.5: bone preservation (fields 25, 26 and 29)

Condition:

1 Good
2 Stained
3 Cracked
4 Flaking
5 Porous
6 Fragile

Erosion:

1 Absent – edges sharp
2 Present – edges dull
3 Heavy – edges well rounded

Size:

1 Complete bone 100%
2 <100% but >75%
3 <75% but > 50%
4 <50% but >25%
5 <25%

In all cases the value is multiplied by the number of bones
Thus 12 = 2 fragile bones

Appendix 1.6: NOTE abbreviations (field 40)

AS	axial splitting
AT1	transverse cuts to dorsal side towards articulation with occipital condyles
CH	chop
DIST	distal
DI	deciduous incisor (first to third: DI1, DI2, DI3)
DJF	distal just fusing
DP	deciduous premolar (second to fourth: DP2, DP3, DP4); letter codes refer to states of wear after Grant 1982
FP1	dismembering marks, see Binford 1981
FP3	dismembering marks, see Binford 1981
HD1	dismembering marks, see Binford 1981
HD2	dismembering marks, see Binford 1981
HD3	dismembering marks, see Binford 1981
HD4	dismembering marks, see Binford 1981
HD6	filleting marks, see Binford 1981
HD7	filleting marks, see Binford 1981
HP1	dismembering marks, see Binford 1981
HP3	dismembering cut to the bicipital crest
HP4	filleting marks, see Binford 1981
HY1	transverse cuts to hyoid
HY2	longitudinal cuts to hyoid
I	incisor (first to third: I1, I2, I3)
IL	ilium
INS	incisor
IS	ischium
JF	just fusing
LE	loose epiphysis
+LE	metaphysis with LE
L	left
M	molar (first to third molars: M1, M2, M3); letter codes refer to states of wear after Grant 1982
MAND	mandible
MAX	maxilla
MC/MT	metacarpal/metatarsal (second to fifth e.g.MC2, MC3 etc.)
MCP1	dismembering marks, see Binford 1981
MH1	lateral transverse marks immediately beneath tempromandibular joint
MH2	lateral oblique marks to ramus
MH4	lateral transverse marks immediately above tempromandibular joint
MH7	buccal transverse marks beneath tooth row
MH9	buccal longitudinal marks beneath tooth row
MTD1	dismembering marks, see Binford 1981
MTD2	skinning marks, see Binford 1981
MTD4	filleting marks, see Binford 1981
MTP1	dismembering marks, see Binford 1981
NEO	neonatal
OC3	transverse marks to occipital condyle
P	premolar (first to fourth: P1, P2, P3, P4); letter codes refer to states of wear after Grant 1982
P	pubis
PJF	proximal just fusing
PHD1	transverse dismembering marks to the distal articulation
PHP1	transverse dismembering marks to the proximal articulation
PS4	filleting marks, see Binford 1981

PS5	filleting marks, see Binford 1981
PS7	dismembering marks, see Binford 1981
PS8	dismembering marks, see Binford 1981
PS9	dismembering marks, see Binford 1981
PS10	dismembering marks, see Binford 1981
PT1	transverse marks to patella
PROX	proximal
R	right
RCD1	dismembering marks, see Binford 1981
RCD3	filleting marks, see Binford 1981
RCP3	dismembering marks, see Binford 1981
RCP4	dismembering marks, see Binford 1981
RCP5	dismembering marks, see Binford 1981
RCP6	filleting marks, see Binford 1981
RCP7	filleting marks, see Binford 1981
S1	dismembering marks, see Binford 1981
S2	dismembering marks, see Binford 1981
SK1	transverse marks to skull to remove horn
TA1	dismembering marks, see Binford 1981
TC1	dismembering marks, see Binford 1981
TC3	dismembering marks, see Binford 1981
TNC1	dismembering marks, see Binford 1981
TP2	dismembering marks, see Binford 1981
Y	young

Appendix 2: fields in METRICS

Field	Field Name	Type	Width	Description
1	SITE	Character	5	Site code
2	CONTEXT	Character	5	Context number
3	SPECIES	Character	2	Two digit species code
4	BONE	Character	2	Two letter bone code (see appendix 2.1)
5	SIDE	Character	1	L = left, R = right, X = indeterminate
6	MEAS1	Numeric	5	See appendix 2.2 for details
7	MEAS2	Numeric	5	See appendix 2.2 for details
8	MEAS3	Numeric	5	See appendix 2.2 for details
9	MEAS4	Numeric	5	See appendix 2.2 for details
10	MEAS5	Numeric	5	See appendix 2.2 for details
11	MEAS6	Numeric	5	See appendix 2.2 for details
12	MEAS7	Numeric	5	See appendix 2.2 for details
13	MEAS8	Numeric	5	See appendix 2.2 for details
14	MEAS9	Numeric	5	See appendix 2.2 for details
15	ML	Numeric	5	See appendix 2.2 for details
16	WITHERS	Numeric	5	See appendix 2.3 for details
17	NOTE	Character	12	Additional information

Appendix 2.1: letter codes for BONE (field 4)

AN	Antler	MC	Metacarpal
BH	Bos horn	CM	carpometacarpus
OH	Ovis horn	PL	Pelvis
CH	Capra horn	TB	Tibia
SK	Skull	FM	Femur
JW	Mandible	MT	Metatarsal
SC	Scapula	TM	Tarsometatarsus
CO	Coracoid	AS	Astragalus
HM	Humerus	CA	Calcaneus
RD	Radius		

Appendix 2.2: metrical data by element (fields 6-15 hold measurements in millimetres to one decimal point)

Column 1 = database field
Column 2 = measurement code after von den Driesch (1976)
Column 3 = measurement description

Cattle horn core

Meas1	47	length of outer curvature
Meas2	44	basal circumference
Meas3	45	max oro-aboral diameter of base
Meas4	46	min dorso-basal diameter of base

Sheep/goat horn core

Meas1	43	length of horn core along front margin
Meas2	44	basal circumference
Meas3	45	max oro-aboral diameter of base
Meas4	42	min dorso-basal diameter of base

Deer antler

Meas1	39	circumference of burr
Meas2	40	circumference of distal end of pedical
Meas3	41	distal circumference of burr

Coracoid

Meas1	GL	greatest length
Meas2	Lm	medial length
Meas3	Bb	basal breadth

Scapula (not bird)

Meas1	GLP	greatest length of glenoid process
Meas2	LG	length of glenoid cavity
Meas3	SLC	smallest length of neck
ML	HS	length of spine (Equus only)

Scapula (for bird)

Meas1	GL	greatest length
Meas2	Dic	greatest cranial diagonal

Humerus (not bird)

Meas1	Dd	greatest depth of distal epiphysis
Meas2	Bd	greatest breadth of distal epiphysis
Meas3	LT	length trochlea
Meas4	BT	greatest breadth of trochlea
ML	GL	greatest length

Humerus (bird)

Meas1	GL	greatest length
Meas2	Bp	breadth of proximal end
Meas3	Bd	greatest breadth of distal end

Radius (not bird)

Meas1	Bp	greatest breadth of proximal epiphysis
Meas2	Bd	greatest breadth of distal epiphysis
Meas3	BFp	greatest breadth facies art. prox
ML	GL	greatest length

Radius (bird)

Meas1	GL	greatest length
Meas2	Bd	greatest breadth of distal end

Ulna (bird)

Meas1	GL	greatest length
Meas2	Bp	greatest breadth of proximal end

Meas3	Dip	greatest diagonal of proximal end

Metacarpal/metatarsal

Meas1	Bp	greatest breadth of proximal epiphysis
Meas2	Dp	greatest depth of proximal epiphysis
Meas3	DFB	greatest breadth of distal fusion point
Meas4	DFD	greatest depth of distal fusion point
Meas5	Bd	greatest breadth of distal epiphysis
Meas6	DC	depth of medial condyle (for sheep/goat – after Boessneck 1969, 355)
Meas7	DT	depth of exterior trochlea (for sheep/goat – after Boessneck 1969, 355)
Meas8	SD	smallest breadth of diaphysis
Meas9	Ll	lateral length (Equus only)
ML	GL	greatest length

Carpometacarpus

Meas1	GL	greatest length
Meas2	Bp	greatest breadth of the proximal extremity

Tarsometatarsus

Meas1	GL	greatest length
Meas2	Bp	greatest breadth of proximal end
Meas3	Bd	greatest breadth of distal end

Pelvis

Meas1		height of medial acetabular rim from ilio-pubic ridge (sheep/goat and cattle only)

Femur (not bird)

ML	GL	greatest length

Femur (bird)

Meas1	GL	greatest length
Meas2	Lm	medial length
Meas3	Bd	greatest breadth of distal epiphysis

Tibia

Meas1	Bd	greatest breadth of distal epiphysis
Meas2	Dd	greatest depth of distal epiphysis
ML	GL	greatest length

Tibiotarsus

Meas1	GL	greatest length
Meas2	Dip	greatest diagonal of proximal end
Meas3	Bd	greatest breadth of distal end

Astragalus (not Equus)

Meas1	GLl	greatest length of lateral half
Meas2	GLm	greatest length of medial half
Meas3	Dl	greatest thickness of lateral half

Astragalus (Equus)

Meas1	GB	greatest breadth
Meas2	GH	greatest height
Meas3	BFd	breadth of distal articular surface
Meas4	LmT	length of medial part of trochlea tali

Calcaneus

Meas1	GL	greatest length
Meas2	c	length of articular surface at lateral process for sheep/goat (after Boessneck 1969, 353)
Meas3	d	greatest length of lateral process for sheep/goat (after Boessneck 1969, 353)

Appendix 2.3: WITHERS height (field 16 holds measurements in millimetres to one decimal point)

Cattle	after Fock (1966), metapodials only
Horse	after Kiesewalter (1888 in von den Driesch and Boessneck 1974)
Sheep/goa	after Teichert (1975)
Pig	after Teichert (1969)
Dog	after Harcourt (1974)