

Supplementary Information

Skulls (n=8)		DRY				WET				N	%
Skull portions	SET 1 dorsal	SET 2 ventral	SET 3 dorsal	SET 4 ventral	SET 5 dorsal	SET 6 ventral	SET 7 dorsal	SET 8 ventral			
M1+zygomatic arch	X	X		X+ M1+M2	X	X	X	X	7	88	
Incisor in socket	X	X	X	X	X+ frontal bone	X+ frontal bone	X+ frontal bone	X+ frontal bone	8	100	
Isolated molars	X	X	X	X	X	X	X	X	8	100	

Table S1. Representation of skull portions following two compressions. Skull fragmentation appears not to be very severe, and most skulls remained attached but deformed, but any further processing of these specimens caused its disintegration into small fragments. Black squares = skeletal portion present; X+ = present with attached bone part or teeth.

Mandibles (n=8)		DRY				WET				N	%
Mandible portions	SET 1 lingual	SET 2 buccal	SET 3 lingual	SET 4 buccal	SET 5 buccal	SET 6 lingual	SET 7 buccal	SET 8 lingual			
Complete and/or longitudinal fissures				fissures	fissures	fissures	fissures		4	33	
M1+diastema	X	X	X	X	X	X		X	7	58	
Detached molars	X	X	X					X	4	33	
Incisor in socket	X	X	X	X	X	X		X	7	58	
Detached ascending ramus	X	X	X					X	4	33	

Table S2. Mandibles compressed in the three steps of compression, indicating the position when compressed and the occurrence of mandible portions following compression. Black squares = skeletal portion present (fissures indicate portions of bone that were obtained when the mandibles broke but were still present in the complete mandible).

Pelves (n=8)		DRY				WET				N	%
Pelvis portions	SET 1 ventral	SET 2 dorsal	SET 3 ventral	SET 4 dorsal	SET 5 ventral	SET 6 dorsal	SET 7 ventral	SET 8 dorsal			
Almost complete								X	1	13	
Acetabulum (damaged)	TRJ		TRJ						2	25	
Acetabulum+illium					fissures				0	0	
Acetabulum+ischium		X		X	fissures	X		fissures	3	38	
Acetabulum+pubis					X	fissures	X	fissures	2	25	

Table S3. Remains and frequency of portions of the pelvis when compressed. Black squares = skeletal portion present.

FEMURS (n=12)		DRY						WET						N	%
Femur portions when compressed	SET1 anterior	SET2a anterior	SET2b posterior	SET3 anterior	SET4a anterior	SET4b posterior	SET5 post	SET6b post	SET6a anterior	SET7a posterior	SET7b anterior	SET8 post			
Complete							fissures	fissures	fissures	fissures			7	41%	
Proximal end	③TRJ detached head+neck	③COS detached head+neck	③TRJ detached head+neck	③TRJ detached head+neck		③COS + fissures							5	29%	
Proximal+>1/2 diaphysis													0	0%	
Diaphysis		③COS											1	6%	
Distal+>1/2 diaphysis				fissures		③COS+ fissures							4	24%	
Distal end													0	0%	
													17		
Femurs portions expected when compressed+processed	SET1 anterior	SET2a anterior	SET2b posterior	SET3 anterior	SET4a anterior	SET4b posterior	SET5 post	SET6b post	SET6a anterior	SET7a posterior	SET7b anterior	SET8 post	N	%	
Complete													3	13%	
Proximal end breakage/fissures in proximal	③TRJ detached head+neck	③COS detached head+neck	③TRJ detached head+neck	③TRJ detached head+neck		③COS detached head+neck*			*③TRJ detached head+neck	*③TRJ fissure			7	30%	
Proximal+>1/2 diaphysis							*	*					2	9%	
Diaphysis		③COS		*		*③COS		*					4	17%	
Distal+>1/2 diaphysis									*	*			4	17%	
Distal end breakage/fissures in distal				*		*③COS	*③TRJ						3	13%	
													23		

Table S4. Femur breakage intensity appears independent of bone position (anterior or posterior) when compressed TOP: Frequency of femur portions following compression. BOTTOM: Several long bones bear cracks or fissures that may result in detachment of parts during processing, conforming to what we have called the “compressed and processed sample. Black squares = skeletal portion present; *=expected after processing

Humeri (n=10)		DRY						WET					
Humerus portions when compressed	SET 1 anterior	SET 2.2 (2nd step) posterior	SET 2.3 (3rd step) posterior	SET 3 anterior	SET 4 anterior	SET 5 posterior	SET 6 posterior	SET 7.2 (2nd step) anterior	SET 7.3 (3rd step) anterior	SET 8 lateral	N	%	
Complete		③TRJ fissure				fissures		fissures			4	27%	
Proximal end breakage/fissure in proximal					①COS						1	7%	
Proximal+>1/2 diaphysis	③COS fissure									③TRJ	2	13%	
Shaft			③COS								2	13%	
Distal+>1/2 diaphysis			③COS	③COS	③COS					③COS	4	27%	
Distal end breakage/fissure in distal	③TRJ fissure								③TRJ		2	13%	
											15		
Humerus portions expected when compressed+processed	SET 1 anterior	SET 2.2 (2nd step) posterior	SET 2.3 (3rd step) posterior	SET 3 anterior	SET 4 anterior	SET 5 posterior	SET 6 posterior	SET 7.2 (2nd step) anterior	SET 7.3 (3rd step) anterior	SET 8 lateral	N	%	
Complete		③TRJ fissure									2	10%	
Proximal end breakage/fissure in proximal	③COS		*③COS		smashed* broken epiphysis					③TRJ breakage	4	20%	
Proximal+>1/2 diaphysis											0	0%	
Shaft	*		*③COS			*		*		*	6	30%	
Distal+>1/2 diaphysis			③COS	③COS	*①COS						3	15%	
Distal end breakage/fissure in distal	③TRJ broken					*③COS		*③TRJ	③TRJ	*③COS	5	25%	
											20		

Table S5. Humerus breakage intensity appears independent of bone position (anterior or posterior) when compressed TOP: Frequency of humerus portions following compression. BOTTOM: Several long bones bear cracks or fissures that may result in detachment of parts during processing, conforming to what we have called the “compressed + processed sample”. Black squares = skeletal portion present; *=expected after processing

Astragali(n=9) Calcanei (n=7)		DRY						WET		N	%
Astragalus portions	SET 1 plantar	SET 1 dorsal	SET 2 dorsal	SET 3 plantar	SET 4 dorsal	SET 5 plantar	SET 6 dorsal	SET 7 plantar	SET 8 dorsal		
Complete										7	78
Transversal fracture		③TRJ	③TRJ							2	22
Calcaneus portions			Medial	Lateral	Medial	Lateral	Medial	Lateral	Medial		
Complete										7	100
Broken										0	0

Table S6. Some astragali were crushed during the experiment. Calcanei were always complete. Breakage in astragali has been recorded according to Villa and Mahieu (1991) nomenclature (transversal, right, jagged and no change in the circumference ③) to classify the type of breakage (see methodology section, this paper), but this is not related to the typology and cause of breakage shown in Villa and Mahieu (1991).

COMPRESSED PELLETS. Compression was exerted only once (Descriptions are based on two of the compressed pellets that contained enough skeletal material to provide reliable information).

PELLET #2. DRY

2 Mandibles: 1 complete with a long fissure along the incisor's socket although the actual incisor was broken in two halves and the tip removed, the rooted half in situ. Molars are in situ, but in two segments. Broken ascending ramus, detached from the mandible body, with M3+M2. M1 is retained with the diastema and the rest of the mandible included the incisor, half of which remains in situ.

2 Skulls: Parietals articulated along the skull sutures which do not show any sign of opening. M1-M3 in situ with zygomatic arch. Maxilla fissured under M3. M1-M3 without zygomatic arch without fissures. Incisors (upper and lower) are transversally broken, all isolated incisors retained in the sockets

1 complete astragali

1 pelvis articulated to the acetabulum ischial apart

2 humeri: Complete without epiphysis fused, epiphyses found apart when sorting. Distal + diaphysis fused and shaft broken in two (③COS).

3 femur fragments: 1 distal end with articular sutures semi-fused, breakage 3TRJ and fissure in distal. 1 distal end + diaphysis (sutures semi-fused) broken edge (③COS) and 1 proximal end+ diaphysis, head attached and without signs of fissure, broken edge in shaft (③ COS).

1 Tibia proximal end plus shaft, broken longitudinally in small pieces ([①COS]) squared in Figure 5).

1 scapula, only the articulation is preserved.

PELLET #4. WET.

1 parietal open along the sutures that join both halves, no fissures or fractures

3 incisors at the interior of the sockets.

3 maxillae +zygomatic arch with M2+M3/M1-M3/M1 only.

3 maxillae without zygomatic arch: 2 with M2+M3/1 M2.

6 complete mandibles: 1 has the ascending ramus broken transversally to the mandible corpus and the other ascending ramus has an open fissure (incisor is at the alveolar cavity, but the tip is transversally broken). The other mandible with some damages has a longitudinal fissure affecting the ascending ramus and reaching the mandibular corpus (incisor broken at the tip transversally) with M2+M3 in situ, the third mandible with broken incisor (transversally and tip removed) has the mandibular bone complete and the M3-M1 raw complete. The other 3 mandibles are complete and M1-M3, except for one that has lost the M1.

5 humeri: all complete, none have the proximal epiphysis fused, 1 epiphysis found isolated.

6 femurs complete without distal epiphyses fused, (3 unfused distal articulations were found apart). None of the proximal epiphyses have the cap of the femur head fused. There are 2 fragments of distal end with transversal breakage (③TRJ) of mature individuals.

3 pelves: 3 transversally (TRJ) broken acetabulum attached to ischial

2 calcanei and 1 astragali complete