

APPENDIX 6

THE ANIMAL BONE

By Claire Ingrem

TABLE 57. TAXA REPRESENTATION ACCORDING TO RECOVERY METHOD (NISP)

(a) In hand-collected material

	Period								Total n
	3				4				
	SE Layers		House 1		SE Layers		House 1		
	n	%	n	%	n	%	n	%	
Horse	14	<1	6	<1	11	<1	8	1	39
Cattle	860	16	288	18	1432	19	142	13	2722
Sheep	62	1	6	<1	59	1	58	5	185
Goat			1	<1					1
Sheep/goat	595	11	204	12	712	9	118	11	1629
Pig	757	14	208	13	518	7	119	11	1602
Dog	143	3	27	2	315	4	18	2	503
<i>Capreolus capreolus</i>	19	<1	15	1	8	<1	3	<1	45
<i>Cervus elaphus</i>	24	<1			15	<1			39
<i>Lepus europaeus</i>	14	<1	10	1	10	<1	1	<1	35
<i>Meles meles</i>		<1			15	<1			15
<i>Rattus rattus</i>		<1			1	<1			1
Rodent	1	<1			4	<1			5
<i>Anser anser</i>	3	<1			4	<1			7
<i>Anser spp.</i>	1	<1			2	<1			3
<i>Anas/Aythya spp.</i>	19	<1	4	<1	5	<1	1	<1	29
Galliformes	90	2	14	1	105	1	8	1	217
<i>Scolopax rusticola</i>	6	<1	3	<1	8	<1	3	<1	20
<i>Scolopacidae spp.</i>					1	<1			1
<i>Columba spp.</i>	3	<1	1	<1	1	<1			5
<i>Corvus corax</i>			3	<1	19	<1			22
<i>Corvus frugilegus/corone</i>	1	<1							1
<i>Corvidae spp.</i>	1	<1			1	<1			2
<i>Turdidae spp.</i>	1	<1							1
Bird	71	1	15	1	35	<1	14	1	135
<i>Salmonidae spp.</i>	2	<1			1	<1			3
Flatfish					1	<1			1
Fish	2	<1							2
? <i>Anser spp.</i>	1	<1							1
? <i>Anas/Aythya spp.</i>	3	<1	1	<1					4
?Galliform	41	1	5	<1	29	<1	5	<1	80

? <i>Gallinago spp.</i>					2	<1			2
? <i>Columba spp.</i>	1								1
? <i>Corvus corax</i>	1								1
? <i>Corvidae spp.</i>	1								1
Large mammal	1783	33	596	36	3699	49	432	40	6510
Medium mammal	805	15	227	14	583	8	138	13	1753
Small mammal	9	<1	1	<1	30	<1	4	<1	44
Unidentifiable	3507		1713		5189		914		11323
<b>Total</b>	<b>8841</b>		<b>3348</b>		<b>12815</b>		<b>1986</b>		<b>26990</b>
<b>Total identifiable</b>	<b>5334</b>		<b>1635</b>		<b>7626</b>		<b>1072</b>		<b>15667</b>
<b>% identifiable</b>	<b>60</b>		<b>49</b>		<b>60</b>		<b>54</b>		<b>58</b>

## (b) In sieved sample

	Period								Total n
	3				4				
	SE Layers		House 1		SE Layers		House 1		
	n	%	n	%	n	%	n	%	
Cattle	5	4	2	13	6	3	1	7	14
Sheep	1	1			2	1			3
Sheep/goat	9	6	4	27	23	11			36
Pig	21	15			52	26	5	33	78
<i>Lepus europaeus</i>							1	7	1
<i>Apodemus sylvaticus</i>	2	1							2
Rodent	2	1	1	7	2	1	2	13	7
Large mammal	33	23	2	13	30	15			65
Medium mammal	9	6	5	33	26	13	5	33	45
Small mammal	5	4			8	4	1	7	14
Galliform	3	2			3	1			6
?Galliform	1	1	1	7	2	1			4
<i>Scolopax rusticola</i>	3	2			1	<1			4
<i>Corvidae spp.</i>					1	<1			1
Bird	29	21			17	8			46
<i>Cyprinidae spp.</i>	4	3							4
<i>Anguilla anguilla</i>	7	5			3	1			10
? <i>Trachurus trachurus</i>	1	1							1
<i>Sparidae spp.</i>					1	<1			1
? <i>Mugilidae spp.</i>	1	1							1
Flat fish	1	1							1
Fish	4	3			5	2			9
<i>Rana temporaria</i>					2	1			2
Amphibian					17	8			17
Unidentifiable	1966		248		2503	1245	228		4945
<b>Total</b>	<b>2107</b>		<b>263</b>		<b>2704</b>		<b>243</b>		<b>5317</b>
<b>Total identifiable</b>	<b>141</b>		<b>15</b>		<b>201</b>		<b>15</b>		<b>372</b>
<b>% identifiable</b>	<b>7</b>		<b>6</b>		<b>7</b>		<b>6</b>		<b>7</b>

TABLE 58. SOUTH-EAST LAYERS: NUMBER OF PAIRED AND ARTICULATED SPECIMENS (NISP)

## (a) Period 3

	Matching sides	Articulation
Horse		2
Cattle	2	2
Sheep	4	
Pig	2	
<i>Cervus elaphus</i>		9
<b>Total</b>	<b>8</b>	<b>13</b>

## (b) Period 4

	Matching sides	Partial skeleton
Cattle	2	
Pig	6	12
<i>Meles meles</i>		15
Galliform	2	
<i>Corvus corax</i>	6	5
Medium mammal		33
<b>Total</b>	<b>14</b>	<b>65</b>

TABLE 59A. SOUTH-EAST LAYERS: MINIMUM NUMBER OF ELEMENTS AND INDIVIDUALS

## (i) Period 3

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>	
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Mandible			13	11	17	21	17	12	3	1		
Scapula			14	11	10	11	9	11	1	1		
Humerus			14	9	11	9	19	15				
Radius		1	15	16	24	12	7	9				
Ulna			8	9	7	4	17	22				
Pelvis			14	8	6	9	6	10				1
Femur			7	10	6	6	9	16				
Tibia			9	11	24	21	19	24				
Calcaneum			10	7	3	4	10	14				
Astragalus			10	8	4	1	4	6				
Metacarpal			7	11	21	12			3		1	
Metatarsal	1		13	12	13	10			1			1
MNE		2		257		266		256		10		3
MNI		1		16		24		24		3		1

## (ii) Period 4

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>	
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Mandible	1		9	11	22	18	9	8	1	1		
Scapula			33	20	10	9	7	8				1
Humerus		1	20	23	15	13	15	17				
Radius	1		37	26	19	10	8	9				
Ulna	1		14	17	2	5	7	12				
Pelvis			16	13	7	5	8	7				1

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>	
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
Femur			22	18	6	9	10	7				
Tibia	1		29	25	25	19	21	19			2	
Calcaneum			14	11	5	2	7	5				
Astragalus			15	11	1	2	3	2				
Metacarpal			11	13	17	15			1			
Metatarsal			10	16	19	18			1	1		1
MNE		5	434		273		189		5		5	
MNI		1	37		25		21		1		1	

TABLE 59B. 'HOUSE 1' SEQUENCE: MINIMUM NUMBER OF ELEMENTS AND INDIVIDUALS

## (i) Period 3

	Cattle		Sheep/goat		Pig	
	Left	Right	Left	Right	Left	Right
Mandible	3	2	3	5	3	3
Scapula	1	3	2	2	3	2
Humerus	3	4	2	4	3	4
Radius	4	5	6	2	2	5
Ulna	5				6	8
Pelvis	3	4	5	2	3	3
Femur	1	1		2	3	3
Tibia	2		3	5	3	7
Astragalus	2	6	1	1		1
Calcaneum	4	8	1	1	1	7
Metacarpal	4	4	3	3		
Metatarsal	2	6	5	2		
Metapodial						18
MNI	8		6		8	

## (ii) Period 4

	Cattle		Sheep/goat		Pig	
	Left	Right	Left	Right	Left	Right
Mandible	2	2	2	4	2	5
Scapula	3	2	1	1	2	2
Humerus	2	2	1	3	4	1
Radius		4	7	3	1	1
Ulna		1	1	1	2	
Pelvis	2	2	2	3	2	5
Femur				2		1
Tibia	2	3	1	5	3	2
Astragalus	1	1		1	1	1
Calcaneum	3	2	1	3	4	
Metacarpal	1	1	4	4		
Metatarsal	4	3	2	1		
Metapodial						7
MNI	4		7		5	

TABLE 60. ANATOMICAL REPRESENTATION OF SELECTED TAXA (NISP)

(a) Period 3

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>		<i>L. europaeus</i>		Lge. mammal		Med. mammal		Total		
	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	S.E.L	H1	Total
Antler									2	2	2	2							8	2	10
Horn core			16	4	20		1												41	5	46
Frontal			1	1	4		1												7		7
Zygomatic			7	7	3		3	2	5										17		17
Occipital condyle			4	4	3		3	2	5										21	2	23
Premaxilla			4	4	4		1	1											11	1	12
Tooth	8	1	84	43	127	117	64	181	90	32	122	11	11						310	140	450
Maxilla			4	4	4	5	5	33	25	8	33								84	8	92
Mandible			58	18	76	73	16	89	66	17	83	5	2	7	20	3	23	12	574	58	632
Hyoid			2	2	2	1	1	1	1	1									6		6
Atlas			2	2	4	1	1	1	1	1									12	2	14
Axis			2	2	2														8	2	10
Scapula	1	1	48	7	55	38	7	45	35	6	41	2	4	15	10	25	6	3	351	36	387
Humerus	1	1	37	12	49	33	9	42	55	11	66	1	1	2	63	9	72	13	7	20	486
Radius	1	1	66	18	84	60	18	78	22	13	35			3	2	5	16	4	4	4	444
Ulna			27	6	33	20	20	20	52	14	66			1	11	1	12		264	21	285
Pelvis			53	12	65	30	13	43	32	10	42	1	1	4	12	3	15	1	341	38	379
Femur			36	3	39	33	5	38	43	9	52			1	2	22	1	23	28	3	361
Patella			1	1	2	1	1	1											6	1	7
Tibia			46	7	53	80	20	100	75	17	92			1	3	4	43	9	52	15	625
Fibula						22	1	23	22	1	23								46	1	47
Distal fibula			1	1	1														2		2
Carpal	1	1	7	5	12			2	2	2				2	3	5	1	1	45	8	53
Astragalus			24	9	33	5	2	7	11	1	12								104	12	116
Calcaneum	1	1	23	19	42	7	2	9	25	10	35							1	1	174	
Navicular cuboid			12	2	14									1	1	1			32	2	34
Sesamoid																			2	2	2
Metacarpal			46	20	66	57	12	69	3	6	1			1	1	1	1	287	35	322	
Metatarsal	1	1	53	17	70	42	8	50	7	3	10	1	1					266	29	295	
Metapodial	1	1	11	4	15	3	3	6	76	25	101	1	1	3	2	4	6	1	267	36	303
Lateral Metapodial									57	9	66								132	9	141

	Horse		Cattle		Sheep/goat		Pig		C. capreolus		C. elaphus		L. europaeus		Ige. mammal		Med. mammal		Total													
	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total											
1st Phalanx	2		85	34	119	19	8	27	26	11	37	1	1	2	3	3		2	2	382	54	436										
2nd Phalanx			30	13	43	6	2	8	12	1	13	1						1	1	131	17	148										
3rd Phalanx			42	10	52	1		1	7	1	8									122	11	133										
Cervical vertebra														6	1	7	4	3	7	21	4	25										
Thoracic vertebra													12		12	7	1	8	31	1	32											
Lumbar vertebra													1	1	2	4	1	5	9	2	11											
Sacrum							1	1					1		1					4	1	5										
Caudal vertebra																																
Rib																			1	1	1	1										
Tooth frag.	1	1	30	24	54	24	22	46	22	5	27								6	51	161	22	183									
Skull frag.			3		3	1		1	17	5	22	1	1							258	52	310										
Limb bone fragment																																
Rib frag.																																
Vertebra frag.																																
<b>Total</b>	<b>14</b>	<b>6</b>	<b>20</b>	<b>865</b>	<b>290</b>	<b>1155</b>	<b>667</b>	<b>214</b>	<b>869</b>	<b>778</b>	<b>208</b>	<b>985</b>	<b>18</b>	<b>15</b>	<b>33</b>	<b>24</b>	<b>0</b>	<b>24</b>	<b>14</b>	<b>10</b>	<b>24</b>	<b>14</b>	<b>24</b>	<b>1197</b>	<b>270</b>	<b>1467</b>	<b>811</b>	<b>227</b>	<b>1026</b>	<b>9612</b>	<b>1240</b>	<b>10852</b>

Note:  
S.E.L. = south-east layers  
H1 = House 1

**(b) Period 4**

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>		<i>L. europaeus</i>		Lge mammal		Med. mammal		Total				
	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total		
Antler									1	1	9	9							10	10	10		
Horn core			27	3	30														27	3	30		
Frontal			2		2	4	4												6		6		
Zygomatic			12	12	3	3	3												15		15		
Nasal													1	1	1				1		1		
Occipital condyle			8	8	8			1	1	1	1	1	1	1	1	1	1	1	10	1	11		
Premaxilla			5	5	2	3	3												10		10		
Tooth	2	2	4	69	20	89	153	31	184	75	23	98							299	76	375		
Maxilla			14	14	10	1	11	22	4	26									46	5	51		
Mandible	1	1	76	8	84	90	9	99	34	15	49			5	6	11	1	1	209	40	249		
Hyoid			1	1	1	2	2												3		3		
Atlas			11	11	1	1	1	1	1					1	1	1	1	1	12	2	14		
Axis			7	7	7	2	2							2	1	3			11	1	12		
Scapula			109	7	116	35	4	39	26	6	32	1	1	1	23	5	28	2	4	6	197	26	223
Humerus	2	2	83	7	90	42	6	48	41	8	49			1	180	13	193	8	8	357	34	391	
Radius	1	2	187	5	192	60	11	71	23	2	25			3	65	1	66	1	1	340	21	361	
Ulna	1	1	71	2	73	10	2	12	23	2	25			17	17	17			122	6	128		
Pelvis			94	9	103	22	7	29	37	10	47	1	1	2	12	2	14			168	28	196	
Femur			105	1	106	31	5	36	39	4	43			56	2	58	14	5	19	245	17	262	
Patella					1	1													0	1	1		
Tibia	1	1	123	9	132	83	10	93	64	8	72	2	2	3	107	5	112	13	4	17	396	37	433
Fibula									26	1	27								26	1	27		
Carpal	1	1	20	1	21	1	1	1						5	5	5			26	2	28		
Astragalus			47	3	50	18	1	19	5	2	7								70	6	76		
Calcaneum			46	5	51	7	4	11	15	4	19			1	1	1			68	14	82		
Navicular									1	1	1								1		1		
Navicular cuboid			16	1	17														16	1	17		
Cuboid									1	1	1								1		1		
Sesamoid														1	1	2	1	1	2	1	3		

	Horse		Cattle		Sheep/goat		Pig		<i>C. capreolus</i>		<i>C. elaphus</i>		<i>L. europaeus</i>		Lge mammal		Med. mammal		Total																
	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total	S.E.L	H1	Total														
Metacarpal			53	3	56	69	13	82													123	16	139												
Metatarsal			63	16	79	76	5	81	1	4	2	6	1	1								145	23	168											
Metapodial	2	2	23	4	27	7	1	8	40	7	47				3	1	4	2	2			77	13	90											
Lateral																																			
Metapodial									33	10	43												33	10	43										
1st Phalanx	1	1	83	12	95	11	8	19	20	2	22						2	2					117	23	140										
2nd Phalanx			36	5	41	4	4	8	8	6	14	1	1										45	15	60										
3rd Phalanx			32	3	35	2	2	5	5	1	6												37	6	43										
Cervical vertebra															15	1	16	4	4					19	1	20									
Thoracic vertebra									1	1					18	1	19	9	6	15	27	8	35			35									
Lumbar vertebra									5	5					6		6	5	4	9	11	9	20			20									
Caudal vertebra																																			
Rib									3	3					38	5	43	70	17	87	108	25	133			133									
Tooth frag.	1	1	9	18	27	56	29	85	10	6	16												2	2	2										
Skull frag.			6		6	1		1	17	2	19				127	1	128	6	2	8	157	5	162			162									
Limb bone fragment															1043	30	1073	178	46	224	1221	76	1297			1297									
Rib frag.						1	5	6							520	67	587	266	8	274	787	80	867			867									
Vertebra frag.									8	8					161	28	189	24	24					185	36	221									
<b>Total</b>	<b>11</b>	<b>8</b>	<b>1438</b>	<b>143</b>	<b>1581</b>	<b>796</b>	<b>176</b>	<b>972</b>	<b>570</b>	<b>124</b>	<b>694</b>	<b>8</b>	<b>3</b>	<b>11</b>	<b>15</b>	<b>0</b>	<b>15</b>	<b>10</b>	<b>1</b>	<b>11</b>	<b>11</b>	<b>1</b>	<b>15</b>	<b>10</b>	<b>1</b>	<b>11</b>	<b>2407</b>	<b>170</b>	<b>2577</b>	<b>608</b>	<b>143</b>	<b>751</b>	<b>5863</b>	<b>768</b>	<b>6631</b>

Note

S.E.L. = south-east layers

H1 = House 1



TABLE 61. SOUTH-EAST LAYERS: ANATOMICAL REPRESENTATION OF BIRDS (NISP)

## (a) Period 3

	<i>A. anser</i> <i>spp.</i>	<i>Anser</i> <i>spp.</i>	<i>Anas/Aythya</i> <i>spp.</i>	Galliform	<i>S. rusticola</i> <i>spp.</i>	<i>Columba</i> <i>spp.</i>	<i>C. frugilegus/</i> <i>corone</i>	<i>Corvidae</i> <i>spp.</i>	<i>Turdidae</i> <i>spp.</i>	Total
Furcula	1		1	2						4
Sternum				6						6
Coracoid			3	8						11
Mandible										0
Scapula			3	6						9
Humerus	2		4	10	1			1		18
Radius				5	1	1				7
Ulna		1		9	3	1	1		1	16
Carpometacarpus			2	3	1					7
Pelvis			2							2
Femur				10						10
Tibiotarsal			3	12						15
Tarsometatarsal			1	22	3					26
<b>Total</b>	<b>3</b>	<b>1</b>	<b>18</b>	<b>71</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>105</b>
<b>%</b>	<b>3</b>	<b>1</b>	<b>17</b>	<b>68</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>100</b>

## (b) Period 4

	<i>A. anser</i> <i>spp.</i>	<i>Anser</i> <i>spp.</i>	<i>Anas/Aythya</i> <i>spp.</i>	Galliform	<i>S. rusticola</i> <i>spp.</i>	<i>Scolopacidae</i> <i>spp.</i>	<i>Columba</i> <i>spp.</i>	<i>C. corax</i>	<i>Corvidae</i> <i>spp.</i>	Total
Furcula				1						1
Sternum				7						7
Coracoid			1	13	1		1	1		17
Scapula				6	1			1		8
Humerus	1			13	1			4		19
Radius		1		8	1			1		11
Ulna			2	16	1			4	1	24
Carpometacarpus				7	1			1	1	10
Pelvis				1				1		2
Femur	1			7	1			2		11
Foot phalanx	1			1						2
Synsacrum				1						1
Tibiotarsal		1		8	1	1		2		13
Tarsometatarsal	1		2	19				1		23
Skull frag.								1		1
<b>Total</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>108</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>2</b>	<b>150</b>
%	3	1	3	72	5	1	1	13	1	100

TABLE 62. INCIDENCE OF GNAWING (NISP)

## (a) South-east layers

	Canid	Period 3		Period 4		
		Canid	Rodent	Total	Canid	Total
		n	%	n	%	
Cattle	41	41	4	73	5	
Sheep/goat	12	12	2	38	5	
Pig	47	47	6	48	8	
Large mammal	16	16	1	27	1	
Medium mammal	1	1	2	2	<1	
?Gallinago spp.				1	50	
<b>Total</b>	<b>117</b>	<b>1</b>	<b>118</b>	<b>*2</b>	<b>189</b>	<b>*3</b>

\* % of identifiable assemblage

## (b) 'House 1' sequence

	Period 3		Period 4	
	n	%	n	%
Cattle	8	3	6	4
Sheep/goat	2	1	3	3
Pig	8	4	3	2
Large mammal	2	<1	4	1
Medium mammal	1	<1		
<b>Total</b>	<b>21</b>	<b>1</b>	<b>16</b>	<b>1</b>

TABLE 63. INCIDENCE OF BUTCHERY (NISP)

## (a) South-east layers

	Period 3						Period 4					
	Cut	Chop	Sawn	Sliced	Total		Cut	Chop	Sawn	Sliced	Total	
	n	n	n	n	n	%	n	n	n	n	n	%
Cattle	37	57	1	12	107	12	60	64		44	168	12
Sheep/goat	8	12		2	22	4	9	9			18	2
Pig	12	14		2	28	3	13	14			27	5
<i>Cervus elaphus</i>									2		2	13
Large mammal	58	21	1	17	97	5	78	53		51	182	5
Medium mammal	13	4		1	18	2	18	2			20	3
<b>Total</b>	<b>128</b>	<b>108</b>	<b>2</b>	<b>34</b>	<b>272</b>	<b>*5</b>	<b>178</b>	<b>142</b>	<b>2</b>	<b>95</b>	<b>417</b>	<b>*6</b>

## (b) 'House 1' sequence

	Period 3					Period 4				
	Chop	Chop/cut	Cut	Total		Chop	Cut	Total		
	n	n	n	n	%	n	n	n	%	
Cattle	8	1	8	17	6	1	3	4	3	
Sheep/goat			3	3	1	1	1	2	2	
Pig	1	1	3	5	2	2	1	3	2	
<i>Capreolus capreolus</i>			1	1	7					
<i>Cervus elaphus</i>										
Large mammal	4		12	16	3	1	5	6	1	
Medium mammal	2		3	5	2		1	1	1	
<b>Total</b>	<b>15</b>	<b>2</b>	<b>30</b>	<b>47</b>	<b>*3</b>	<b>5</b>	<b>11</b>	<b>16</b>	<b>*1</b>	

\* = % of identifiable assemblage

TABLE 64. SOUTH-EAST LAYERS: EVIDENCE FOR DELIBERATE BREAKAGE IN OBJECT 70I (NISP)

	Smashed diaphysis		Split epiphysis	
	n	%	n	%
Cattle	58	6	36	4
Sheep/goat	50	7		
Pig	36	4	4	<1
<i>Capreolus capreolus</i>	1	5		
Large mammal	8	<1	10	1
<b>Total</b>	<b>153</b>	<b>*3</b>	<b>50</b>	<b>*1</b>

TABLE 65. INCIDENCE OF BURNING (NISP)

## (a) South-east layers

	Period 3				Period 4				
	Brown	Calcined	Charred	Total		Calcined	Charred	Total	
				n	%			n	%
Cattle		1	1	2	<1				
Sheep/goat		2	2	4	<1				
Pig	1			1	<1	2	1	3	<1
Large mammal	1	1	4	6	<1	3	3	6	<1
Medium mammal		1	1	2	<1	4		4	<1
<b>Total</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>15</b>	<b>*&lt;1</b>	<b>9</b>	<b>4</b>	<b>13</b>	<b>*&lt;1</b>

## (b) 'House 1' sequence

	Period 3			Period 4		
	Calcined	Charred	Total	Calcined	Charred	Total
	n	n	n %	n	n	n %
Sheep/goat						
Large mammal						
Medium mammal	2		2 1	1	4	5 3
Small mammal				1		1 25
<b>Total</b>	<b>2</b>		<b>2 *&lt;1</b>	<b>2</b>	<b>4</b>	<b>6 *&lt;1</b>

\* = % of identifiable assemblage

TABLE 66. ESTIMATE OF WITHERS HEIGHT (MM)

## (a) Sheep

	Period	GL	Factor	Withers height
Metacarpal	3	115.8	4.89	566
	3	124.7	4.89	610
	4	122.2	4.89	598
	4	131.2	4.89	642
	4	120.7	4.89	590
Metatarsal	4	143	4.54	649
	4	144.6	4.54	656
	4	127.2	4.54	577
	4	143.9	4.54	653

\* (after Teichert, in Boessneck and von den Dreisch 1974)

## (b) Cattle

	Period	GL	Sex	Factor	Withers height
Metacarpal	3	190	male	6.33	1203
	3	182	female	6.05	1101
	3	177	female	6.05	1071
Metatarsal	3	204	female	5.28	1077

\* (after Matolski 1970, in Boessneck and von den Driesch 1974)

TABLE 67. SOUTH-EAST LAYERS: TAXA REPRESENTATION ACCORDING TO OBJECT (NISP)

## (a) Period 3

	701		41016		44008		500028		500035		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Horse	13	<1	1	<1	1	<1	1	<1	2	1	19	<1
Cattle	731	16	51	44	19	8	42	24	22	9	865	16
Sheep/goat	581	13	4	3	30	13	27	15	25	11	667	13
Pig	673	15	4	3	26	11	31	18	44	19	778	15
<i>Capreolus capreolus</i>	15	<1	1	<1	1	<1	1	1	2	1	19	<1
<i>Cereus elaphus</i>	24	1									24	<1
<i>Lepus europaeus</i>	12	<1	1	<1	1	<1	2	1	1	<1	14	<1
<i>Apodemus sylvaticus</i>	1	<1	1	<1	1	<1	1	1	1	<1	2	<1
Rodent	1576	34	48	42	79	33	43	24	71	31	1817	34
Large mammal	696	15	3	3	56	24	18	10	41	18	814	15
Medium mammal	6	<1	3	1	3	1	1	1	5	2	14	<1
Small mammal	4	<1							1	<1	4	<1
<i>Anser anser</i>									1	<1	1	<1
<i>Anser spp.</i>											1	<1
<i>Anas platyrhynchos</i>											19	<1
<i>Anas/Aythya spp.</i>	19	<1									19	<1
Galliform	87	2	3	1	2	1	2	1	1	<1	93	2
<i>Scolopax rusticola</i>	4	<1	2	2	3	1	1	1	1	<1	10	<1
<i>Columba spp.</i>	3	<1									3	<1
<i>Corvus frugilegus</i>	1	<1									1	<1
<i>Corvidae spp.</i>	1	<1									1	<1
<i>Turdidae spp.</i>	1	<1									1	<1
Bird	119	3	2	2	10	4	10	6	8	3	149	3
<i>Salmonidae spp.</i>	2	<1									2	<1
<i>Cyprinidae spp.</i>	1	<1	1	<1	1	<1	3	1	3	1	4	<1
<i>Anguilla anguilla</i>	1	<1							6	3	7	<1
Fish	4	<1	1	1	3	1	1	<1	1	<1	9	<1
<b>Total</b>	<b>4574</b>		<b>115</b>		<b>237</b>		<b>177</b>		<b>232</b>		<b>5335</b>	
%	86		2		4		3		4		100	

## (b) Period 4

	700		500020		500031		500032		500033		500034		500037		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Horse	10	<1									1				11	<1
Cattle	1089	19	10	16	36	13	28	13	68	18	122	22	85	28	1438	19
Sheep/goat	634	11	4	6	26	9	24	11	27	7	55	10	26	8	796	11
Pig	408	7	7	11	22	8	29	13	34	9	47	8	24	8	571	8
<i>Capreolus capreolus</i>	8	<1													8	<1
<i>Cervus elaphus</i>	4	<1	1	2	3	1	2	1			3	1	2	1	15	<1
<i>Lepus europaeus</i>	9	<1	1	2			1	<1					1	<1	10	<1
<i>Meles meles</i>					18	7									15	<1
<i>Rattus rattus</i>							1	<1							1	<1
Rodent							3	1	1	<1			2	1	6	<1
Large mammal	2995	52	22	34	73	26	78	36	167	45	271	48	122	40	3728	50
Medium mammal	409	7	2	3	68	25	22	10	40	11	54	10	13	4	608	8
Small mammal	21	<1			5	2	3	1	3	1	5	1	2	1	38	1
<i>Anser anser</i>	2	<1													2	<1
<i>Anser. Spp</i>	1	<1			1	<1			1	<1			1	<1	4	<1
<i>Anas/Aythya spp.</i>	5	<1													5	<1
Galliform	63	1			6	2	14	6	23	6	1	<1			107	1
<i>Scolopax rusticola</i>	2	<1	1	2	2	1			2	1	1	<1			8	<1
<i>Scolopacidae spp.</i>	1	<1													1	<1
<i>Columba spp.</i>	1	<1													1	<1
<i>Corvus corax</i>	2	<1	12	19			5	2							19	<1
<i>Corvidae spp.</i>							1	<1	1	<1					2	<1
Bird	49	1	4	6	16	6	5	2	4	1	3	1	5	2	86	1
<i>Salmonidae spp.</i>	1	<1													1	<1
<i>Anguilla anguilla</i>	1	<1											2	1	3	<1
<i>Sparidae spp.</i>									1	<1					1	<1
Flatfish									1	<1					1	<1
Fish	1	<1					1	<1					3	1	5	<1
<i>Rana temporaria</i>													2	1	2	<1
Amphibian													17	6	17	<1
<b>Total</b>	<b>5716</b>		<b>64</b>		<b>276</b>		<b>217</b>		<b>373</b>		<b>563</b>		<b>307</b>		<b>7510</b>	
%	76		1		4		3		5		7		4			

TABLE 68. PERIOD 4. TAXA REPRESENTATION IN EPHEMERAL HOUSES IN OBJECT 700 (% NISP)

	N. building	S. building	Other layers
Horse		<1	<1
Cattle	18	19	19
Sheep/goat	33	12	11
Pig	2	9	7
<i>Lepus europaeus</i>		<1	<1
Large mammal	35	46	54
Medium mammal	9	9	7
Small mammal		<1	<1
<i>Anser anser</i>		<1	<1
Galliform	1	2	1
?Galliform		<1	<1
Bird	1	1	<1

TABLE 69. SOUTH-EAST LAYERS: ESTIMATED AGE ACCORDING TO DENTAL DATA  
(after Levine 1982; Legge 1991; Payne 1973; O' Connor 1988)

## (a) Period 3

## (i) horse

	P3	P4	M1	M2	M3	Estimated age
Maxillary				66.3		5.5-8 years
Maxillary					>65.8	6.5-7.75 years
Mandibular				43.2		8-11 years
Maxillary		41.1				9-11.75 years
Maxillary	35.7					11-15 years
Maxillary				23.4		14+ years

## (ii) cattle

	P4	M1	M2	M3	Estimated age	%
(c)					1-3 months	3
(k)					15-26 months	7
(k)					15-26 months	
(l)		k	g	b	26-36 months	
E		k	g	d	26-36 months	
E		j	g		26-36 months	
c		j	g	c	26-36 months	
c		j	g	d	26-36 months	
		j	g		26-36 months	38
		j			26-36 months	
f					26-36 months	
				e	26-36 months	
				e	26-36 months	
				f	26-36 months	
g		l	k		3-6 years	
			k	g	3-6 years	14
			k	g	3-6 years	
			k	g	3-6 years	
				g	3-8 years	3

P4	M1	M2	M3	Estimated age	%
		l	g	6-8 years	
g	l	l	h	6-8 years	
			j	6-8 years	
g	l	k	k	6-8 years	
		k	k	6-8 years	31
			k	6-8 years	
g	m	l	l	6-8 years	
	m		l	6-8 years	
		l		6-8 years	
	o	m		8-10 years	3

## (iii) sheep/goat

P4	M1	M2	M3	Estimated age	%
(b)				2-6 months	
(b)				2-6 months	8
(e)				2-6 months	
(e)				2-6 months	
(h)				6-12 months	2
(h)	f	d		12-24 months	
	g	d		12-24 months	
	f	e		12-24 months	
e	f	e		12-24 months	
	f	e		12-24 months	
g	f	f		12-24 months	23
e	f			12-24 months	
e	f			12-24 months	
f	f			12-24 months	
	g	f		12-24 months	
(n)	g	f	V	12-24 months	
			a	2-3 years	
			a	2-3 years	
	g	f	b	2-3 years	
			b	2-3 years	
			b	2-3 years	
f	g	f	c	2-3 years	23
f	g	f	c	2-3 years	
e	g	f	c	2-3 years	
e		f	c	2-3 years	
g	g	g	c	2-3 years	
			c	2-3 years	
f	g	f	d	3-4 years	
	g	g	d	3-4 years	
			d	3-4 years	
			d	3-4 years	
f	f	f	e	3-4 years	
g	g	f	e	3-4 years	
h	g	f	e	3-4 years	31
h	j	g	e	3-4 years	
			e	3-4 years	
			e	3-4 years	
f	f	f	f	3-4 years	
			f	3-4 years	
l	h	g		3-4 years	



P4	M1	M2	M3	Estimated age	%
h	l	g	g	4-6 years	2
			g	4-8 years	
			g	4-8 years	6
			g	4-8 years	
j	m	k	g	6-8 years	4
j	m	k	g	6-8 years	
<b>(iv) pig</b>					
P4	M1	M2	M3	Estimated age	%
(a)				Immature	
(b)				Immature	
(c)	a			Immature	
(c)	c			Immature	
(d)				Immature	27
(d)				Immature	
(d)				Immature	
(g)	c	E		Immature	
	c	E		Immature	
E	d	E		Immature	
E	b	a		Subadult	
E	e			Subadult	
b		c		Subadult	
	g	c	E	Subadult	
a		c	E	Subadult	24
		d	E	Subadult	
	h	e	E	Subadult	
b	k	f	E	Subadult	
			E	Subadult	
			b	Adult	
			b	Adult	
		e		Adult	
	h	f		Adult	
d				Adult	
c	k	f	c	Adult	
c	l	f	c	Adult	
e	k	g	c	Adult	
e				Adult	
		g	c	Adult	49
			c	Adult	
			c	Adult	
f	m	h	d	Adult	
		h	d	Adult	
f	n	j	d	Adult	
f	n			Adult	
f				Adult	
			d	Adult	
			d	Adult	



P4	M1	M2	M3	Estimated age	%
(m)	f	e	d	3-4 years	
	f	e		3-4 years	
	f	e		3-4 years	
	g	e		3-4 years	
f	g	f	d	3-4 years	
		f	d	3-4 years	
			d	3-4 years	
			d	3-4 years	
			d	3-4 years	
			d	3-4 years	
g	g	f		3-4 years	
g	g	f		3-4 years	
f	g	f		3-4 years	
g	f	e	e	3-4 years	
e	f	e	e	3-4 years	
f	f	f	e	3-4 years	
f	g	f	e	3-4 years	56
f	g	f	e	3-4 years	
h	g	f	e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
			e	3-4 years	
	g	f	f	3-4 years	
h	j			3-4 years	
	j	g	f	3-4 years	
		g	f	3-4 years	
f	g	g		3-4 years	
			f	3-4 years	
			f	3-4 years	
h	j	g	g	4-6 years	
	k	g	g	4-6 years	5
j	m	g	g	4-6 years	
			g	4-8 years	3
			g	4-8 years	
j	m	j	g	8-10 years	2
<b>(iii) pig</b>					
P4	M1	M2	M3	Estimated age	%
(b)				Juvenile	
(b)				Juvenile	
(d)				Juvenile	
(e)				Juvenile	
c	g	d	E	Juvenile	44
			E	Juvenile	
			E	Juvenile	
			I/2	Juvenile	

P4	M1	M2	M3	Estimated age	%
	d	a		Subadult	
b	e	c		Subadult	
a	e			Subadult	
	f	d		Subadult	44
a	f			Subadult	
		d		Subadult	
		e		Subadult	
b	g			Subadult	
	j			Adult	11
			c	Adult	

TABLE 70. 'HOUSE 1' SEQUENCE: ESTIMATED AGE ACCORDING TO TOOTH ERUPTION AND WEAR (after Levine 1982; Legge 1991; Payne 1973; O' Connor 1988)

(a) Period 3

	P3	P4	M1	M2	M3	Estimated age
Horse				10.4mm		over 18 years
Cattle		(k)	g	f		15-26 months
Cattle					a	15-36 months
Cattle					b	26-36 months
Cattle					g	over 26 months
Cattle					k	6-8 years
Cattle		h	>p	n	m	over 8 years
Sheep		(d)				2-6 months
Sheep		(g)	d			6-12 months
Sheep		(h)				6-12 months
Sheep/goat					a	2-3 years
Sheep/goat					a	2-3 years
Sheep/goat					b	2-3 years
Sheep/goat					c	2-3 years
Sheep/goat					c	2-3 years
Sheep/goat					c	2-3 years
Sheep/goat					e	3-4 years
Sheep/goat					e	3-4 years
Sheep/goat				f	e	3-4 years
Sheep/goat					f	3-4 years
Sheep/goat					f	3-4 years
Sheep/goat		f	g			4-6 years
Sheep/goat					g	4-8 years
Sheep/goat		g	g	j		over 6 years
Pig			a	E		Immature
Pig					a	Subadult
Pig			g	d		Adult
Pig					b	Adult
Pig				e	c	Adult
Pig					c	Adult
Pig				g	c	Adult

## (b) Period 4

	P3	P4	M1	M2	M3	Estimated age
Horse	60.5mm					6-7.75 years
Cattle					a	15-36 months
Cattle					e	26-36 months
Cattle			l	k	g	3-6 years
Cattle					k	6-8 years
Cattle					k	6-8 years
Cattle				l	k	6-8 years
Sheep		(g)	d			12-24 months
Sheep		(l)				12-24 months
Sheep/goat					e	3-4 years
Sheep/goat					e	3-4 years
Sheep/goat		f	g	f	e	3-4 years
Sheep/goat			g	f		2-4 years
Sheep/goat		f	g	g	g	4-6 years
Sheep/goat					g	4-6 years
Sheep/goat					g	4-6 years
Sheep/goat		j	m	l	l	over 10 years
Pig				e	b	Adult
Pig				e		Adult
Pig					c	Adult
Pig				j	d	Adult

TABLE 71. ESTIMATED AGE ACCORDING TO EPIPHYSEAL FUSION (NISP)

## (a) Period 3

## (i) Cattle

		Fused	Unfused	% unfused
7-10 months	Scapula	13		
	Pelvis	11		
<1yr		24		0
12-15 months	Radius,p	42		
15-18 months	Phalanx II	32		
15-20 months	Humerus,d	17		
20-24 months	Phalanx I	82	2	
<2yrs		173	2	1
24-30 months	Tibia,d	19	5	
	Metacarpal	16	1	
	Metatarsal	21	2	
<3yrs		56	8	13
36 months	Calcaneus	2	7	
36-42 months	Femur,p	8	2	
42-48 months	Humerus,p			
	Radius,d	4	6	
	Ulna,p	1	1	
	Femur,d		3	
	Tibia,p	1		
<4yrs		16	19	54

## (ii) Sheep/goat

		Fused	Unfused	% unfused
3-4 months	Humerus,d	5	1	
	Radius,p	11		

		Fused	Unfused	% unfused
5 months	Scapula	11		
	Pelvis	3	1	
5-7 months	Phalanx II	3	3	
7-10 months	Phalanx I	16	5	
<b>&lt;1yr</b>		<b>49</b>	<b>10</b>	<b>17</b>
15-20 months	Tibia,d	27	3	
20-24 months	Metacarpal	5	3	
	Metatarsal	1	3	
<b>&lt;2yrs</b>		<b>33</b>	<b>9</b>	<b>21</b>
36 months	Calcaneus	4	3	
<b>&lt;3yrs</b>		<b>4</b>	<b>3</b>	<b>43</b>
36-42 months	Femur,p	2	3	
42 months	Humerus,p			
	Radius,d		5	
	Ulna,p	1		
	Femur,d	3	3	
	Tibia,p		2	
<b>&lt;3.5yrs</b>		<b>6</b>	<b>13</b>	<b>79</b>

**(iii) Pig**

		Fused	Unfused	% unfused
12 months	Scapula	8	2	
	Humerus,d	2	4	
	Radius,p	8	2	
	Pelvis	8		
	Phalanx II	6	6	
<b>&lt;1yr</b>		<b>32</b>	<b>14</b>	<b>30</b>
24 months	Tibia,d	5	20	
	Metapodial	14	24	
	Phalanx I	12	12	
<b>&lt;2yrs</b>		<b>31</b>	<b>56</b>	<b>64</b>
24-30 months	Calcaneus		10	
<b>&lt;3yrs</b>			<b>10</b>	<b>100</b>
36-42 months	Ulna,p		4	
	Femur,p	1	3	
42 months	Humerus,p		4	
	Radius,d		4	
	Femur,d		7	
	Tibia,p		4	
<b>&lt;3.5yrs</b>		<b>1</b>	<b>26</b>	<b>96</b>

**(b) Period 4****(i) Cattle**

		Fused	Unfused	% unfused
7-10 months	Scapula	28		
	Pelvis	4		
<b>Subtotal&lt;1yr</b>		<b>32</b>		<b>0</b>
12-15 months	Radius,p	86	2	
15-18 months	Phalanx II	35		
15-20 months	Humerus,d	30	2	
20-24 months	Phalanx I	75	1	
<b>Subtotal&lt;2yrs</b>		<b>226</b>	<b>5</b>	<b>2</b>
24-30 months	Tibia,d	33	9	
	Metacarpal	13	1	

		Fused	Unfused	% unfused
	Metatarsal	24	4	
<b>Subtotal&lt;3yrs</b>		<b>70</b>	<b>14</b>	<b>17</b>
36 months	Calcaneus	4	1	
36-42 months	Femur,p	2	10	
42-48 months	Humerus,p			
	Radius,d	13	20	
	Ulna,p	1	3	
	Femur,d	1	2	
	Tibia,p	1	1	
<b>Subtotal&lt;4yrs</b>		<b>22</b>	<b>37</b>	<b>63</b>

## (ii) Sheep/goat

		Fused	Unfused	% unfused
3-4 months	Humerus,d	8	2	
	Radius,p	6	1	
5 months	Scapula	4	2	
	Pelvis	8		
5-7 months	Phalanx II			
7-10 months	Phalanx I	7	3	
<b>Subtotal&lt;1yr</b>		<b>33</b>	<b>8</b>	<b>20</b>
15-20 months	Tibia,d	19	5	
20-24 months	Metacarpal	6	1	
	Metatarsal	5	2	
<b>Subtotal&lt;2yrs</b>		<b>30</b>	<b>8</b>	<b>21</b>
36 months	Calcaneus	3	1	
<b>Subtotal&lt;3yrs</b>		<b>3</b>	<b>1</b>	<b>25</b>
36-42 months	Femur,p		1	
42 months	Humerus,p	1	1	
	Radius,d		2	
	Ulna,p			
	Femur,d		1	
	Tibia,p	1	2	
<b>Subtotal&lt;3.5yrs</b>		<b>2</b>	<b>7</b>	<b>78</b>

## (iii) Pig

		Fused	Unfused	% unfused
12 months	Scapula	9		
	Humerus,d	4	8	
	Radius,p	13		
	Pelvis	7	4	
	Phalanx II	3	5	
<b>Subtotal&lt;1yr</b>		<b>36</b>	<b>17</b>	<b>32</b>
24 months	Tibia,d	1	19	
	Metapodial	4	14	
	Phalanx I	3	15	
<b>Subtotal&lt;2yrs</b>		<b>8</b>	<b>48</b>	<b>86</b>
24-30 months	Calcaneus		3	
<b>Subtotal&lt;3yrs</b>			<b>3</b>	<b>100</b>
36-42 months	Ulna,p		5	
	Femur,p		3	
42 months	Humerus,p		3	
	Radius,d		1	
	Femur,d		1	
	Tibia,p		4	
<b>Subtotal&lt;3.5yrs</b>		<b>0</b>	<b>17</b>	<b>100</b>

TABLE 72. 'HOUSE I' SEQUENCE: ESTIMATED AGE ACCORDING TO EPIPHYSEAL FUSION

## (a) Period 3

## (i) Cattle

		Fused	Unfused	% unfused
7-10 months	Scapula	3		
	Pelvis	1		
<b>Subtotal&lt;1yr</b>		<b>4</b>		<b>0</b>
12-15 months	Radius,p	11		
15-18 months	Phalanx II	11		
15-20 months	Humerus,d	7		
20-24 months	Phalanx I	23	1	
<b>Subtotal&lt;2yrs</b>		<b>52</b>	<b>1</b>	<b>2</b>
24-30 months	Tibia,d	3		
	Metacarpal	5	1	
	Metatarsal	4	2	
<b>Subtotal&lt;3yrs</b>		<b>12</b>	<b>3</b>	<b>20</b>
36 months	Calcaneus	7		
36-42 months	Femur,p		1	
42-48 months	Humerus,p			
	Radius,d	4		
	Ulna,p	2		
	Femur,d			
	Tibia,p	2		
<b>Subtotal&lt;4yrs</b>		<b>15</b>	<b>1</b>	<b>6</b>

## (ii) Sheep/goat

		Fused	Unfused	% unfused
3-4 months	Humerus,d	1	2	
	Radius,p	4		
5 months	Scapula			
	Pelvis	5		
5-7 months	Phalanx II	2		
7-10 months	Phalanx I	5	1	
<b>Subtotal&lt;1yr</b>		<b>17</b>	<b>3</b>	<b>15</b>
15-20 months	Tibia,d	4	2	
20-24 months	Metacarpal		1	
	Metatarsal			
<b>Subtotal&lt;2yrs</b>		<b>4</b>	<b>3</b>	<b>43</b>
36 months	Calcaneus		1	
<b>Subtotal&lt;3yrs</b>			<b>1</b>	<b>100</b>
36-42 months	Femur,p			
42 months	Humerus,p		1	
	Radius,d	1		
	Ulna,p			
	Femur,d		2	
	Tibia,p	1	1	
<b>Subtotal&lt;3.5yrs</b>		<b>2</b>	<b>4</b>	<b>67</b>

## (iii) Pig

		Fused	Unfused	% unfused
12 months	Scapula	2	1	
	Humerus,d	2	1	
	Radius,p	6		
	Pelvis	3		
	Phalanx II	1		
<b>Subtotal&lt;1yr</b>		<b>14</b>	<b>2</b>	<b>13</b>



		Fused	Unfused	% unfused
24 months	Tibia,d		7	
	Metapodial	2	12	
	Phalanx I	2	8	
<b>Subtotal&lt;2yrs</b>		<b>4</b>	<b>27</b>	<b>87</b>
24-30 months	Calcaneus		5	
<b>Subtotal&lt;3yrs</b>		<b>0</b>	<b>5</b>	<b>100</b>
36-42 months	Ulna,p		2	
	Femur,p			
42 months	Humerus,p		3	
	Radius,d			
	Femur,d		2	
	Tibia,p		1	
<b>Subtotal&lt;3.5yrs</b>			<b>8</b>	<b>100</b>

**(b) Period 4****(i) Cattle**

		Fused	Unfused	% unfused
7-10 months	Scapula	3		
	Pelvis	1		
<b>Subtotal&lt;1yr</b>		<b>4</b>		<b>0</b>
12-15 months	Radius,p	4		
15-18 months	Phalanx II	4		
15-20 months	Humerus,d	3		
20-24 months	Phalanx I	10		
<b>Subtotal&lt;2yrs</b>		<b>21</b>		<b>0</b>
24-30 months	Tibia,d	7		
	Metacarpal	1		
	Metatarsal	6	2	
<b>Subtotal&lt;3yrs</b>		<b>14</b>	<b>2</b>	<b>13</b>
36 months	Calcaneus	1		
36-42 months	Femur,p			
42-48 months	Humerus,p			
	Radius,d			
	Ulna,p			
	Femur,d			
	Tibia,p			
<b>Subtotal&lt;4yrs</b>		<b>1</b>		<b>0</b>

**(ii) Sheep/goat**

		Fused	Unfused	% unfused
3-4 months	Humerus,d	1		
	Radius,p	3		
5 months	Scapula			
	Pelvis	1	1	
5-7 months	Phalanx II	1	3	
7-10 months	Phalanx I	1	6	
<b>Subtotal&lt;1yr</b>		<b>7</b>	<b>10</b>	<b>59</b>
15-20 months	Tibia,d	1	1	
20-24 months	Metacarpal	1	3	
	Metatarsal		2	
<b>Subtotal&lt;2yrs</b>		<b>2</b>	<b>6</b>	<b>75</b>
36 months	Calcaneus	2	2	
<b>Subtotal&lt;3yrs</b>		<b>2</b>	<b>2</b>	<b>50</b>
36-42 months	Femur,p			

		Fused	Unfused	% unfused
42 months	Humerus,p			
	Radius,d	1	3	
	Ulna,p		1	
	Femur,d		1	
	Tibia,p		2	
	<b>Subtotal&lt;3.5yrs</b>	<b>1</b>	<b>7</b>	<b>88</b>
<b>(iii) Pig</b>				
		Fused	Unfused	% unfused
12 months	Scapula			
	Humerus,d	1		
	Radius,p	1		
	Pelvis	4	1	
	Phalanx II	2	1	
	<b>Subtotal&lt;1yr</b>	<b>8</b>	<b>2</b>	<b>20</b>
24 months	Tibia,d		2	
	Metapodial		2	
	Phalanx I	1	1	
	<b>Subtotal&lt;2yrs</b>	<b>1</b>	<b>5</b>	<b>83</b>
24-30 months	Calcaneus		3	
	<b>Subtotal&lt;3yrs</b>		<b>3</b>	<b>100</b>
36-42 months	Ulna,p			
	Femur,p			
42 months	Humerus,p			
	Radius,d		1	
	Femur,d			
	Tibia,p			
	<b>Subtotal&lt;3.5yrs</b>		<b>1</b>	<b>100</b>

TABLE 73. METRICAL DATA FOR MAMMALS: SOUTH-EAST LAYERS

Period	Taxa	Element	Measurement	ABMAP range
4	<i>Cervus elaphus</i>	Antler	Max 60.7	
3	Cattle	Horn core	47	45 46
3	Cattle	Horn core	135	44.9 31.6
3	Cattle	Horn core		68.2 41.7
3	Cattle	Horn core		53.2 41.7
3	Cattle	Horn core		52.8 39.4
4	Cattle	Horn core		65.1 43.8
4	Cattle	Horn core		38.7 31
4	Cattle	Horn core		65.6 44.5
4	Cattle	Horn core	143	55.3 34.9
4	Cattle	Horn core		68.9 54.2
4	Cattle	Horn core		27.2
4	Cattle	Horn core		38.5
4	Cattle	Horn core		65 44.1
4	Cattle	Horn core		44.5 33.3
4	Cattle	Horn core		67.7 44.6
4	Cattle	Horn core		45.7 36
		<i>Element</i>	<i>GL</i>	
3	Pig	Lower third molar	31.4	
3	Pig	Lower third molar	32.6	
4	Pig	Lower third molar	36.2	
3	Pig	Lower third molar	31.3	
3	Pig	Upper third molar	30.8	
4	Pig	Upper third molar	34.4	

Period	Taxa	Element	Measurement				ABMAP range
			GLP	BG	LG	SLC	
3	Cattle	Scapula	81.3	56.6	68	62	
3	Cattle	Scapula		43.5	51.5	44.3	
3	Cattle	Scapula		33.5			35.3-57.3
3	Cattle	Scapula			51.2	41.3	0.2
3	Cattle	Scapula				43.2	
3	Cattle	Scapula		53.9			
3	Cattle	Scapula		43.7	48		
3	Cattle	Scapula		52.4			
3	Cattle	Scapula					36
3	Cattle	Scapula		42.8	51.2	46	
4	Cattle	Scapula				46.4	
4	Cattle	Scapula		43.4		50.9	
4	Cattle	Scapula				38.9	
4	Cattle	Scapula				48.1	
3	Sheep/goat	Scapula		18.7		18.4	
3	Sheep/goat	Scapula		15.1			
3	Sheep/goat	Scapula	29.7	19.9	24.5	17.6	
3	Sheep/goat	Scapula	30	18.4	22.3	17.7	
3	Sheep/goat	Scapula				20.3	
3	Sheep/goat	Scapula		20.7		19.3	
3	Sheep/goat	Scapula				17	
3	Sheep/goat	Scapula		18		16.7	
3	Sheep/goat	Scapula				18.9	
4	Sheep/goat	Scapula		22.1	25.1	17.8	
4	Sheep/goat	Scapula	32.3	22.1	26.2	21.8	
3	Pig	Scapula	35.8	24.8	28.4	21.8	
3	Pig	Scapula		24.1			
3	Pig	Scapula				25.2	
3	Pig	Scapula	35.2	24.5	28.3		
4	Pig	Scapula	31	22.6	25.9	19.2	
4	Pig	Scapula				22.5	

4	Pig	Scapula	37.5		29.2	26.1							
4	Pig	Scapula	35.8	26	26.9								
4	Pig	Scapula		25	28	23							
4	Pig	Scapula	34	E26.1	E30.1	22.4							
4	Pig	Scapula	33.5	25	29.5								
3	<i>Capreolus capreolus</i>	Scapula		19.4	21.5								
			SD	Bd	BT	HT	HTC						
3	Cattle	Humerus				39.1	28.6						
3	Cattle	Humerus			58.4	41.8	31.1						
3	Cattle	Humerus	39.4				33.9						
3	Cattle	Humerus		59.5	55.5	44	32	61-94				1.5	
3	Cattle	Humerus				36.1							
3	Cattle	Humerus		65	62.2	40.3	31						
3	Cattle	Humerus	26										
4	Cattle	Humerus			74.5	46.3	32.9						
4	Cattle	Humerus				35.8	26.9						
4	Cattle	Humerus				34.7	25.3						
3	Sheep/goat	Humerus	14.5		29.8	19.4	13.3						
3	Sheep/goat	Humerus	15		29	19	13.6						
3	Sheep/goat	Humerus			27.6	17.5	13.2						
3	Sheep/goat	Humerus		30.4	29	19.2	13.5						
3	Sheep/goat	Humerus	12.5										
4	Sheep/goat	Humerus	13	26.6	25.6	17.2	13						
4	Sheep/goat	Humerus		29.9	28.8	18	14.4						
4	Sheep/goat	Humerus	13.3										
4	Sheep/goat	Humerus				19							
4	Sheep/goat	Humerus				17.4							
3	Pig	Humerus		35.4	29.3	26.5	17.6						
3	Pig	Humerus	16.9										
3	Pig	Humerus		44.6	35.7	32.7	22.3						
3	Pig	Humerus			34.1	28.9	20.7						

Period	Taxa	Element	Measurement				ABMAP range	
			<i>Bp</i>	<i>BFp</i>	<i>SD</i>	<i>Bd</i>		<i>BFd</i>
4	Pig	Humerus	16.6		31.9	26.5	18.7	
4	Pig	Humerus		38	29.2	27.9	20.2	
4	Pig	Humerus	18.5					11.2-16.9
3	Horse	Radius						
3	Cattle	Radius	74.7	68.2		59.8	51.5	
3	Cattle	Radius	75.5	68.4				
3	Cattle	Radius	75.1	68.5				
3	Cattle	Radius	67.1	63.3				
3	Cattle	Radius		67.5				
4	Cattle	Radius						45.3
4	Cattle	Radius						46.1-73.8
4	Cattle	Radius	78	69.7				59.2
4	Cattle	Radius	80.6	73				
4	Cattle	Radius	68.7	53.3				
4	Cattle	Radius	83	76.9				
3	Sheep/goat	Radius	28.1	26.6				
3	Sheep/goat	Radius	27.2	25.1	13.3			
3	Sheep/goat	Radius	30.5	28.2	14.8			
3	Sheep/goat	Radius	28.9	25.9	13.3			
3	Sheep/goat	Radius	32	30.3				
3	Sheep/goat	Radius	32.2	30.4				
4	Sheep/goat	Radius	30.9	28.8				
3	Sheep/goat	Radius			15.1			
3	Sheep/goat	Radius			15.1			
3	Sheep/goat	Radius			14.8			
3	Sheep/goat	Radius			13.8			
3	Sheep/goat	Radius			15.3			
3	Sheep/goat	Radius			15.5			
3	Sheep/goat	Radius			14			
4	Sheep/goat	Radius	27.7	24.3				

4	Sheep/goat	Radius	12.5			
4	Sheep/goat	Radius	13			
4	Sheep/goat	Radius	16.7			
3	Pig	Radius	30			
3	Pig	Radius	27.8			
3	Pig	Radius	16.4	27-33.2	1	
3	Pig	Radius	26			
4	Pig	Radius	29.6			
4	Pig	Radius	31.1			
4	Pig	Radius	27.4			
4	Pig	Radius	26.7	27-33.2	0.3	
4	Pig	Radius	36.1			
4	Pig	Radius	31.4			
4	Pig	Radius	27.3			
4	Pig	Radius	29			
4	Pig	Radius	25.8			
3	<i>Lepus europaeus</i>	Radius	9.1			
3	<i>Lepus europaeus</i>	Radius	8.8			6.1
4	<i>Lepus europaeus</i>	Radius	9.6			6.2
						<i>L4</i>
3	Cattle	Pelvis	67.8			
3	Cattle	Pelvis	61.5			
3	Cattle	Pelvis	72			
4	Cattle	Pelvis	60.9			
4	Cattle	Pelvis	55.2			
3	Sheep/goat	Pelvis	27.3			
3	Sheep/goat	Pelvis	27			
4	Sheep/goat	Pelvis	26.7			
4	Sheep/goat	Pelvis	27.8			
4	Sheep/goat	Pelvis	25.8			
4	Sheep/goat	Pelvis	26.4			





3	Cattle	Tibia	62.8			
3	Cattle	Tibia	61.7	44.3		
3	Sheep/goat	Tibia	25.2	18		
3	Sheep/goat	Tibia	20.7	16.4		
3	Sheep/goat	Tibia	23.9	18.5		
3	Sheep/goat	Tibia	25.3	19.1		
3	Sheep/goat	Tibia	24.4	19		
3	Sheep/goat	Tibia	28.7	21.6		
3	Sheep/goat	Tibia	24.2	19.2		
3	Sheep/goat	Tibia	24.4	18.5		
3	Sheep/goat	Tibia	27.2	21.9		
3	Sheep/goat	Tibia	27.2	21.6		
3	Sheep/goat	Tibia	25.5	20.4		
3	Sheep/goat	Tibia	26.2	21		
3	Sheep/goat	Tibia	23	18.4		
3	Sheep/goat	Tibia	25.2	18.6		
3	Sheep/goat	Tibia	26.9			
3	Sheep/goat	Tibia	27.7	22		
3	Sheep/goat	Tibia	26.6	20		
3	Sheep/goat	Tibia	27.1	21.2		
3	Sheep/goat	Tibia	26.7	19.5		
4	Sheep/goat	Tibia	22.4			
4	Sheep/goat	Tibia	26.9	19.9		
4	Sheep/goat	Tibia			16-22.4	
4	Sheep/goat	Tibia	22.7	16.8		
4	Sheep/goat	Tibia	23	26.8		
4	Sheep/goat	Tibia	27.4	19.1		
4	Sheep/goat	Tibia	26.3	20.4		
4	Sheep/goat	Tibia	26.8	20.5		
4	Sheep/goat	Tibia	26.7	20.8		
4	Sheep/goat	Tibia	26.9	21.3		
4	Sheep/goat	Tibia	23.1	18.2		
					27.3	21.5





Period	Taxa	Element	Measurement	ABMAP range
3	Cattle	Metacarpal	54.4	
3	Cattle	Metacarpal		53
3	Cattle	Metacarpal		50.7
3	Cattle	Metacarpal		55
3	Cattle	Metacarpal	177	53
3	Cattle	Metacarpal	50.4	28
3	Cattle	Metacarpal	48.6	
3	Cattle	Metacarpal	53.5	33.2
3	Cattle	Metacarpal		50.6
3	Cattle	Metacarpal		60.7
3	Cattle	Metacarpal		74.2
3	Cattle	Metacarpal	55.7	33.3
3	Cattle	Metacarpal	61	36.2
3	Cattle	Metacarpal	52.2	31.2
3	Cattle	Metacarpal	57	34.4
3	Cattle	Metacarpal	54	31.7
3	Cattle	Metacarpal	54.2	33
3	Cattle	Metacarpal		50.7
3	Cattle	Metacarpal	52.2	33.8
3	Cattle	Metacarpal		52.9
3	Cattle	Metacarpal		
3	Cattle	Metacarpal		
3	Cattle	Metacarpal		
4	Cattle	Metacarpal	54.2	33.5
4	Cattle	Metacarpal		55.6
4	Cattle	Metacarpal	53.1	30.2
4	Cattle	Metacarpal	51.2	33.2
4	Cattle	Metacarpal		51.8
4	Cattle	Metacarpal		52.4
4	Cattle	Metacarpal	49.9	
4	Cattle	Metacarpal	58	33.8
4	Cattle	Metacarpal		32.3
4	Cattle	Metacarpal		53.6
4	Cattle	Metacarpal	49.5	30.1

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4	Cattle	Metacarpal	60.7	37.8				
4	Cattle	Metacarpal	52.5	33.5				
4	Cattle	Metacarpal	52.6	33.8				
4	Cattle	Metacarpal			64.4			
4	Cattle	Metacarpal			53.7			
4	Cattle	Metacarpal	53.1	33.3				
4	Cattle	Metacarpal	51.9	31.1				
4	Cattle	Metacarpal	59.7	36.1				
4	Cattle	Metacarpal	51.3	30.1				
4	Cattle	Metacarpal	55	50.8				
4	Cattle	Metacarpal	53.2	33.9				
4	Cattle	Metacarpal			54.6			
4	Cattle	Metacarpal			56.7			
4	Cattle	Metacarpal			76.8	46-76		0.8
4	Cattle	Metacarpal			57.3			
4	Cattle	Metacarpal	54.2					
3	Sheep/goat	Metacarpal					11.8	
3	Sheep/goat	Metacarpal	115.8	14.7			11.1	
3	Sheep/goat	Metacarpal					26	
3	Sheep/goat	Metacarpal	20.2	15.4			11.4	
3	Sheep/goat	Metacarpal	20.4	15.4			11.5	
3	Sheep/goat	Metacarpal					22.6	
3	Sheep/goat	Metacarpal	124.7	15.1			13.2	
3	Sheep/goat	Metacarpal					11.4	
3	Sheep/goat	Metacarpal	19.4	14.9				
3	Sheep/goat	Metacarpal	21.4	15.5			13	
3	Sheep/goat	Metacarpal	23.3	16.2				
3	Sheep/goat	Metacarpal					15.3	
3	Sheep/goat	Metacarpal	21.3	15.5			13.8	
3	Sheep/goat	Metacarpal	22.5	16.3			13.6	
3	Sheep/goat	Metacarpal	22.3	17				

Period	Taxa	Element	Element	Measurement	ABMAP range
3	Sheep/goat	Metacarpal	24.1	17.7	
3	Sheep/goat	Metacarpal	20.2	15.8	
3	Sheep/goat	Metacarpal		13	
3	Sheep/goat	Metacarpal	20.3	15.8	11.8
3	Sheep/goat	Metacarpal	19.6	14.8	11.2
3	Sheep/goat	Metacarpal		12.4	
3	Sheep/goat	Metacarpal	24.2	18.4	
3	Sheep/goat	Metacarpal		14.7	
4	Sheep/goat	Metacarpal			21.5
4	Sheep/goat	Metacarpal			23.8
4	Sheep/goat	Metacarpal			25.3
4	Sheep/goat	Metacarpal			24.3
4	Sheep/goat	Metacarpal	122.2	16.8	22.8
4	Sheep/goat	Metacarpal	131.2	17.2	25
4	Sheep/goat	Metacarpal	120.7	15.4	22
4	Sheep/goat	Metacarpal	22.1	17.3	14.4
4	Sheep/goat	Metacarpal	21.6	16.6	
4	Sheep/goat	Metacarpal	20.5	14.4	11.6
4	Sheep/goat	Metacarpal			11.3
4	Sheep/goat	Metacarpal	26.2	20.1	
4	Sheep/goat	Metacarpal		13.6	
4	Sheep/goat	Metacarpal		14.2	
4	Sheep/goat	Metacarpal	24.1	17	
4	Sheep/goat	Metacarpal			22.4
4	Sheep/goat	Metacarpal	22.4	16.6	
4	Sheep/goat	Metacarpal	21.6	16.4	
4	Sheep/goat	Metacarpal	22.7	16	
4	Sheep/goat	Metacarpal	19.7	16	
4	Sheep/goat	Metacarpal	23	17.6	
4	Sheep/goat	Metacarpal	E22.8	17.2	
3	<i>Capreolus capreolus</i>	Metacarpal			21.5
3	Horse	Metatarsal	GL	Dp	Bd
			Bp	SD	
			48.8	40.4	

3	Cattle	Metatarsal	211	51.9	46.2	26.95	57.3		?
3	Cattle	Metatarsal					51.1		
3	Cattle	Metatarsal					47.2		
3	Cattle	Metatarsal		55.6	53.1		36.5-52.5	3.1	
3	Cattle	Metatarsal					54.4		
3	Cattle	Metatarsal					49.3		
3	Cattle	Metatarsal					48.3		
3	Cattle	Metatarsal					51.7		
3	Cattle	Metatarsal		45.1	46.8				
3	Cattle	Metatarsal	204	44	43.4	22.2	47		f
3	Cattle	Metatarsal		43.2	38.2				
3	Cattle	Metatarsal		45.3	45.7				
3	Cattle	Metatarsal		46.3	46.2				
3	Cattle	Metatarsal					51		
3	Cattle	Metatarsal					63		
3	Cattle	Metatarsal		49.1	49.1				
3	Cattle	Metatarsal		47.5	43.5		60.5		
3	Cattle	Metatarsal					59.5		
3	Cattle	Metatarsal							
3	Cattle	Metatarsal		46.4	45.7				
3	Cattle	Metatarsal					47.8		
3	Cattle	Metatarsal					52.8		
3	Cattle	Metatarsal					50.2		
3	Cattle	Metatarsal		37.2	35.5		36.2-49.3	0.7	
3	Cattle	Metatarsal					52.2		
4	Cattle	Metatarsal					57.2		
4	Cattle	Metatarsal					56.9		
4	Cattle	Metatarsal					48.5		
4	Cattle	Metatarsal					49.6		
4	Cattle	Metatarsal					49.7		
4	Cattle	Metatarsal					47.1		

Period	Taxa	Element	Measurement	ABMAP range
4	Cattle	Metatarsal		49.6
4	Cattle	Metatarsal	41.7	41.6
4	Cattle	Metatarsal		48.4
4	Cattle	Metatarsal		49.3
4	Cattle	Metatarsal		52
4	Cattle	Metatarsal		54.5
4	Cattle	Metatarsal	49.4	44.2
4	Cattle	Metatarsal		48.2
4	Cattle	Metatarsal		45.2
4	Cattle	Metatarsal	44.8	44.5
4	Cattle	Metatarsal		49.1
4	Cattle	Metatarsal		46.5
4	Cattle	Metatarsal	52	54.1
4	Cattle	Metatarsal		36.2-49.3
4	Cattle	Metatarsal		49.3
4	Cattle	Metatarsal		49.3
4	Cattle	Metatarsal		56.8
4	Cattle	Metatarsal	45.4	44.1
4	Cattle	Metatarsal	49.2	49.7
4	Cattle	Metatarsal		27.3
4	Cattle	Metatarsal	53.4	53.3
4	Cattle	Metatarsal	46.5	44.2
4	Cattle	Metatarsal		48.5
4	Cattle	Metatarsal	42.5	42
4	Cattle	Metatarsal	55	52.2
4	Cattle	Metatarsal		36.5-52.5; 36.2-49.3
4	Cattle	Metatarsal		2.5; 2.9
4	Cattle	Metatarsal		62.5
4	Cattle	Metatarsal	47.6	
4	Cattle	Metatarsal	E44.8	
4	Cattle	Metatarsal	45.1	
4	Cattle	Metatarsal	43.3	41.4
4	Cattle	Metatarsal		49
4	Cattle	Metatarsal	46.3	
4	Cattle	Metatarsal	18.1	19.2
3	Sheep/goat	Metatarsal		11.4
3	Sheep/goat	Metatarsal	19.7	20.2
				10.8



3	Sheep/goat	Metatarsal	19.5	19.5	19.5				
3	Sheep/goat	Metatarsal			10.5				
3	Sheep/goat	Metatarsal	21.5	22.3					
3	Sheep/goat	Metatarsal			9.9				
3	Sheep/goat	Metatarsal	19.9	20.4					
3	Sheep/goat	Metatarsal			11.4				
3	Sheep/goat	Metatarsal			12.4				
3	Sheep/goat	Metatarsal							
3	Sheep/goat	Metatarsal	18.9	19.8					
3	Sheep/goat	Metatarsal			9.8	22			
3	Sheep/goat	Metatarsal	18.5	19.5	9.8				
3	Sheep/goat	Metatarsal	18.4	19.7	9.8				
4	Sheep/goat	Metatarsal	143	21.9	22.1	12.3	25.3		
4	Sheep/goat	Metatarsal			20.2		23.2		
4	Sheep/goat	Metatarsal	144.6	20	21.4	11	23.9		
4	Sheep/goat	Metatarsal	127.2	20.6	22.2	11.9	25.2	15.7-22.1	0.1
4	Sheep/goat	Metatarsal	143.9	19.4	19.9	12.9	25		
4	Sheep/goat	Metatarsal		21.1	20.2				
4	Sheep/goat	Metatarsal				11.8			
4	Sheep/goat	Metatarsal	21.7	21.2	21.2	11.6			
4	Sheep/goat	Metatarsal	17.4						
4	Sheep/goat	Metatarsal	19.9	20.3					
4	Sheep/goat	Metatarsal	20						
4	Sheep/goat	Metatarsal	20	20.1					
4	Sheep/goat	Metatarsal				11.8			
4	Sheep/goat	Metatarsal	20.7	20					
4	Sheep/goat	Metatarsal				8.5			
4	Sheep/goat	Metatarsal				11.6			
4	Sheep/goat	Metatarsal	20.8	22.5				15.7-22.1	0.4
4	Sheep/goat	Metatarsal	25.7	20.7					
3	<i>Cervus elaphus</i>	Metatarsal							41

TABLE 74. METRICAL DATA FOR MAMMALS: 'HOUSE I' SEQUENCE

Period	Taxa	Element	Measurement type		
			GL	Max	Min
4	Cattle	Horn core			
4	Cattle	Horn core	123	50.5	34.3
				40.7	28
			GL		
4	Pig	Lower M3	31.2		
4	Pig	Upper M3	29.5		
			GLP	BG	SLC
3	Cattle	Scapula	72.2	52	62.8
3	Pig	Scapula	35.6		55.5
4	Pig	Scapula			24.5
3	<i>Capreolus capreolus</i>	Scapula	25.4	19.4	21
3	<i>Capreolus capreolus</i>	Scapula	29	20.5	22.5
			Bd	BT	Htc
3	Horse	Humerus	92	82.4	47.5
4	Pig	Humerus	38.8		30.4
4	Dog	Humerus	20.5	14.6	9.9
4	Dog	Humerus		13.1	
4	Dog	Humerus			14
4	Dog	Humerus	17.4	13.8	10
3	<i>Capreolus capreolus</i>	Humerus	26.1		18.7
			Bp	Bfp	Bd
3	Horse	Radius			65.5
3	Cattle	Radius	e82.8	77.8	43.9
3	Cattle	Radius	e68.2	63.6	
3	Cattle	Radius			48.8

3	Cattle	Radius				70.5	49.2	
3	Sheep/goat	Radius	30.9	27.9				
3	Sheep/goat	Radius			28.6	24.5		
4	Sheep	Radius	28.6	26.3				
4	Sheep/goat	Radius				26.3	22	
4	Sheep/goat	Radius						13
3	Pig	Radius	28.8					
3	Pig	Radius	29.3					
3	<i>Lepus europaeus</i>	Radius	8.5					
<i>LA</i>								
3	Cattle	Pelvis	58.3					
3	Sheep/goat	Pelvis	22.6					
3	Sheep/goat	Pelvis	24.5					
3	Pig	Pelvis	33.5					
4	Pig	Pelvis	39.6					
4	Pig	Pelvis	34.6					
<i>SD</i>								
<i>SD</i>								
<i>Bd</i>								
4	Horse	Tibia	60.4					<i>Dd</i>
4	Cattle	Tibia	49.7					35.8
4	Sheep	Tibia	23.2					
3	Sheep/goat	Tibia	23.2					18
3	Dog	Tibia	12.6					11.1
4	Dog	Tibia	9.4					
4	Dog	Tibia	8.6					
4	Dog	Tibia	8.3					
<i>GLM</i>								
3	Cattle	Astragalus	65.2					
3	Cattle	Astragalus	68.8					62.1e
3	Cattle	Astragalus						59.6

Period	Taxa	Element	Measurement type								
			Bp	Dp	SD	Bd	Bf	b	a		
3	Cattle	Astragalus	57.5								
3	Cattle	Astragalus	e70								
3	Sheep	Astragalus	24.7								
4	Sheep	Astragalus	25								
4	Pig	Astragalus	38.3								
4	Pig	Astragalus	36.9								
			GL								
4	<i>Lepus europaeus</i>	Calcaneus	31.9								
			GL								
3	Cattle	Metacarpal					59.2				
3	Cattle	Metacarpal					43.6				
3	Cattle	Metacarpal					56.9				
3	Cattle	Metacarpal	50.9	32.3							
3	Cattle	Metacarpal	49.9	29.6							
3	Cattle	Metacarpal	54.8	32.9							
3	Cattle	Metacarpal					51				
3	Cattle	Metacarpal					59.7				
4	Cattle	Metacarpal					55				
4	Cattle	Metacarpal	51.7	32.8							
3	Sheep/goat	Metacarpal	17.2	13.1							
3	Sheep/goat	Metacarpal	18.8	13.3							
3	Sheep/goat	Metacarpal	22	15.9							
3	Sheep/goat	Metacarpal	25.4	17.7							
4	Sheep/goat	Metacarpal							14.7		
4	Sheep/goat	Metacarpal							22.6		22.5
4	Sheep/goat	Metacarpal									
4	Sheep/goat	Metacarpal									
4	Sheep/goat	Metacarpal									
3	Cattle	Metatarsal	19.6	14.7							
3	Cattle	Metatarsal	38.5e	37.2e							
3	Cattle	Metatarsal					e56.5				51.5

3	Cattle	Metatarsal	52.5	50
4	Cattle	Metatarsal	60.2	54.4
4	Cattle	Metatarsal	59.5	54.2
4	Cattle	Metatarsal	57.3	51
3	Sheep/goat	Metatarsal		11
3	Sheep/goat	Metatarsal		11.4
3	Sheep/goat	Metatarsal		11.2
3	Sheep/goat	Metatarsal	18.9	19.2
4	Sheep/goat	Metatarsal		10.1

TABLE 75. METRICAL DATA FOR BIRDS

## (a) South-east layers

Period	Taxa	Element	Measurement			
			<i>GL</i>	<i>Dic</i>		
3	Anas/Aythya spp.	Scapula		11.5		
3	Anas/Aythya spp.	Scapula		10.8		
3	Anas/Aythya spp.	Scapula		11.3		
3	Galliform	Scapula		10.8		
3	Galliform	Scapula		9.3		
3	Galliform	Scapula		12.2		
4	Galliform	Scapula		11.7		
4	Galliform	Scapula		11.7		
4	Galliform	Scapula		12.2		
4	Galliform	Scapula	70.2	13.3		
4	Galliform	Scapula		13		
4	Scolopax rusticola	Scapula		8.2		
4	Corvus corax	Scapula		17.1		
			<i>GL</i>	<i>Bb</i>	<i>Bf</i>	
3	Anas/Aythya spp.	Coracoid	53.5	50.7		
4	Anas/Aythya spp.	Coracoid	56.6	53.1	20.5	
4	Columba spp.	Coracoid		33.8		
3	Galliform	Coracoid	47.2	45.4	10.7	
3	Galliform	Coracoid	49.8	47.4	10.3	
3	Galliform	Coracoid	42.9			
4	Galliform	Coracoid		51.2		
4	Galliform	Coracoid	54	51	11.4	
4	Galliform	Coracoid	49.1	46.7	10.5	
4	Galliform	Coracoid	49.1	46.2	10.8	
4	Galliform	Coracoid	50	47.9	13.2	
4	Galliform	Coracoid		45		
4	Galliform	Coracoid	54.8	53.7	12	
4	Galliform	Coracoid	54.5	52.6	11.6	
			<i>GL</i>	<i>Bp</i>	<i>SC</i>	<i>Bd</i>
3	Anas/Aythya spp.	Humerus	92.7		7.7	14.8
3	Anas/Aythya spp.	Humerus				14.4
3	Anas/Aythya spp.	Humerus				13.5
3	Anser anser	Humerus			10.3	
4	Anser anser	Humerus				22.5
3	Galliform	Humerus		18.2		
3	Galliform	Humerus				14
3	Galliform	Humerus		17.5		
3	Galliform	Humerus				15.5
3	Galliform	Humerus	71.6	19.1	17.1	15.2
4	Galliform	Humerus	61.7	16.5	6.1	13.3
4	Galliform	Humerus				13.7
4	Galliform	Humerus	68.7		6.5	14.1
4	Galliform	Humerus	64.5	17	6.4	13.4
4	Galliform	Humerus			6.8	15.3

Period	Taxa	Element	Measurement					
4	Galliform	Humerus	75.8	21.6	7.3	16.6		
4	Galliform	Humerus	63.9	17.3	5.8	13.6		
4	Galliform	Humerus				15.9		
4	Galliform	Humerus	66.3	18.2	6.8	14.4		
4	Galliform	Humerus	72.6	19.4	7.2	15.5		
4	Galliform	Humerus	72.6	19.2	7.7	15.6		
3	Scolopax rusticola	Humerus			4.5	10.3		
4	Corvus corax	Humerus	96.8	28.2	9.1	20.4		
4	Corvus corax	Humerus			8.6	21.8		
4	Corvus corax	Humerus			8.6	21.5		
4	Corvus corax	Humerus				19		
3	Corvidae spp.	Humerus	45.4	13.4	4.1			
			<i>GL</i>	<i>Bp</i>	<i>Did</i>			
3	Anas/Aythya spp.	Carpometacarpus	56	12.2	6.9			
3	Columba spp.	Carpometacarpus	33.1	9.7	5.8			
3	Galliform	Carpometacarpus	37.3	12.2	7.2			
3	Galliform	Carpometacarpus	37.2	10	7			
3	Galliform	Carpometacarpus	32.6	9.4	6.4			
4	Galliform	Carpometacarpus	32.3	9.5	6.2			
4	Galliform	Carpometacarpus	40.5	11.2	8.1			
4	Galliform	Carpometacarpus	34.4	10.5	6.7			
4	Galliform	Carpometacarpus	38.9		7			
4	Galliform	Carpometacarpus	35.8	10.7	6.5			
4	Galliform	Carpometacarpus		10.5				
3	Scolopax rusticola	Carpometacarpus	35.1					
4	Scolopax rusticola	Carpometacarpus	37	8.5	4.5			
			<i>GL</i>	<i>SC</i>	<i>Dd</i>			
3	Anas/Aythya spp.	Tibiotarsus			8.8			
4	Anser anser	Tibiotarsus		9.1	14.8			
3	Galliform	Tibiotarsus			12.8			
3	Galliform	Tibiotarsus			11.1			
3	Galliform	Tibiotarsus		5.3	10.7			
3	Galliform	Tibiotarsus			12.9			
3	Galliform	Tibiotarsus			10.5			
3	Galliform	Tibiotarsus			10.2			
3	Galliform	Tibiotarsus			10.3			
4	Galliform	Tibiotarsus			11.8			
4	Galliform	Tibiotarsus			13.2			
4	Galliform	Tibiotarsus			11.2			
4	Galliform	Tibiotarsus	114.8	6.5	12.2			
4	Galliform	Tibiotarsus			12.2			
			<i>GL</i>	<i>Bp</i>	<i>Dp/GLP</i>	<i>SC</i>	<i>Bd/LG</i>	<i>Dd</i>
4	Anser anser	Femur				21	14.1	
3	Galliform	Femur					13.6	11.1
3	Galliform	Femur		13.7	11.3			
3	Galliform	Femur		15.3	10.6			

Period	Taxa	Element	Measurement					
3	Galliform	Femur					14.1	12.3
3	Galliform	Femur		13.4				
3	Galliform	Femur					14.6	14.2
3	Galliform	Femur					16.8	12.5
3	Galliform	Femur					13.7	10.6
4	Galliform	Femur					13.8	12
4	Galliform	Femur					12.8	12.2
4	Galliform	Femur		13.9	9.2			
4	Galliform	Femur	69.1	12.8	9.7	5.6	13.1	15.7
4	Galliform	Femur	80.4	16.5	12.8	6.9	15.7	15
4	Galliform	Femur	80.7	16.8	12.8	6.8	15.8	14.7
4	Galliform	Femur	67.8	14.1	10.1	5.7	12.9	12
4	Corvus corax	Femur	65.8	14.9		6.6	15	12.1
4	Corvus corax	Femur	66.6	15.1		6.4	15.1	11.8
			<i>GL</i>	<i>Bp</i>	<i>SC</i>	<i>Bd/LG</i>	<i>Spur</i>	
4	Anser spp.	Tarsometatarsus	91.4	19.8	8.9	19.2		
4	Anas/Aythya spp.	Tarsometatarsus	44	9.1	4.2	9.2		
4	Anas/Aythya spp.	Tarsometatarsus		8.9				
3	Galliform	Tarsometatarsus	69.8	11.1	5.5			
3	Galliform	Tarsometatarsus	67.9	11.6	5.5	11.5		
3	Galliform	Tarsometatarsus	71.5	13.6	6.7	13.4		
3	Galliform	Tarsometatarsus	56.5	11.3	4.8	10.1		
3	Galliform	Tarsometatarsus				10.1		
3	Galliform	Tarsometatarsus	82.2	14.1	7.1	13.6	23.3	
3	Galliform	Tarsometatarsus				10.6		
3	Galliform	Tarsometatarsus		13.3	6.3	12.2		
3	Galliform	Tarsometatarsus		10.7				
3	Galliform	Tarsometatarsus	63.9	11	5.2	10.3		
3	Galliform	Tarsometatarsus		11.2				
3	Galliform	Tarsometatarsus		11.5				
3	Galliform	Tarsometatarsus				11.2		
3	Galliform	Tarsometatarsus	69.2	10.5	5.7	11.7		
3	Galliform	Tarsometatarsus	61.5	10.8	5.4	10.5		
4	Galliform	Tarsometatarsus		13.3				
4	Galliform	Tarsometatarsus		11.3				
4	Galliform	Tarsometatarsus	68.4	11.7	5.4			
4	Galliform	Tarsometatarsus		13.4	16.9	14.1	20	
4	Galliform	Tarsometatarsus		10.5				
4	Galliform	Tarsometatarsus		11.3	6			
4	Galliform	Tarsometatarsus				10.9		
4	Galliform	Tarsometatarsus					24	
3	Galliform	Tarsometatarsus				10.7		
4	Galliform	Tarsometatarsus	74.3	13.8	6.6	13		
4	Galliform	Tarsometatarsus	66.4	12.2	6	11.9		
4	Galliform	Tarsometatarsus	76.8	12.5	6.1	11.6	11.5	
4	Galliform	Tarsometatarsus				12.5	23.7	
4	Galliform	Tarsometatarsus		13.6	17		22.2	
3	Scolopax rusticola	Tarsometatarsus		6.6				
4	Corvus corax	Tarsometatarsus			4.9	9.8		



## (b). 'House 1' sequence

Phase	Taxa	Element	Measurement type				
			<i>GL</i>	<i>Dic</i>			
3	Galliform	Scapula	66.4	11.7			
			<i>GL</i>	<i>Bp</i>	<i>SC</i>	<i>Bd</i>	
2	Galliform	Humerus	72	19.9	7		
			<i>GL</i>	<i>Bp</i>	<i>Dip</i>	<i>SC</i>	<i>Did</i>
1	Galliform	Ulna	56.4	8.1	11.1	3.7	7.4
1	Galliform	Ulna					8.8
2	Galliform	Ulna		10.1			
			<i>GL</i>	<i>L</i>	<i>Bp</i>	<i>Did</i>	
1	Galliform	Carpometacarpus	33.2	30.6	10.8	6.4	
1	Galliform	Carpometacarpus	37.4				
2	Galliform	Carpometacarpus			7.9		
2	Galliform	Carpometacarpus				6.9	
			<i>Bp</i>	<i>Dp</i>	<i>SC</i>	<i>Bd</i>	<i>Dd</i>
1	Galliform	Femur	13.2	8.3			
1	Galliform	Femur				14.3	14.1
2	Galliform	Femur	13.6	10			
2	Galliform	Femur				13.6	11.8
2	Galliform	Femur			5.6		
2	Galliform	Femur	14.1	10.4			
			<i>SC</i>	<i>Dd</i>			
1	Galliform	Tibiotarsus		10.5			
1	Galliform	Tibiotarsus		9.6			
2	Galliform	Tibiotarsus	5.2				
			<i>GL</i>	<i>Bp</i>	<i>SC</i>	<i>Bd</i>	<i>Spur</i>
1	Galliform	Tarsometatarsus		11			
2	Galliform	Tarsometatarsus			5.5	10.5	
3	Galliform	Tarsometatarsus				11.6	
3	Galliform	Tarsometatarsus		11.5	6.2		16.4
3	Galliform	Tarsometatarsus	69.9	12.3	6.1	11.8	