Ancient Monuments Laboratory Report 99/90

THE HUMAN SKELETAL REMAINS FROM STAUNCH MEADOW, BRANDON, SUFFOLK

S Anderson

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Summary

The skeletal remains from the two Middle Saxon cemeteries uncovered at Brandon are examined. Remains of 153 individuals were recovered from Cemetery 1, as as a large amount of disarticulated bone. well minimum numbers of individuals Approximate were estimated as follows: 57 males, 41 females, 25 unsexed adults and 35 children. Cemetery 2 was only partially excavated and 31 individuals (3 males, 8 females, 20 juveniles) were recovered. Demographic, metrical, morphological, dental and pathological aspects of the population are considered.

Author's address :-

S Anderson

4 Chapel Road, Longham, Dereham, Norfolk NR19 2AJ



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THE HUMAN SKELETAL REMAINS FROM STAUNCH MEADOW, BRANDON, SUFFOLK. Sue Anderson.

Introduction

Two Middle-Saxon cemeteries were uncovered during the excavations at Staunch Meadow, one south of the remains of the church and the other 50m to the north of the first. The more northerly of the two is presumed to represent the second phase of burial and was only partially excavated. The human skeletons from the two cemeteries will be discussed separately in this study, although the second cemetery is too small to allow any meaningful comparison with the first.

Cemelery 1

One hundred and fifty-three articulated skeletons were excavated in the area of the first cemetery, although in practice a few contexts thought to be single skeletons are likely to belong with bones labelled separately but found close by. For example, the remains found in contexts 4055 and 4062 almost certainly belong to one individual whose grave was disturbed by 4061. The whole cemetery area was well used and a large amount of disarticulated bone was also uncovered and grouped in 157 contexts. The estimation of a minimum number of individuals was therefore not an easy task. An estimate was made based on the number of skulls and major long bones as shown in the table below.

Bone	Male	Female	Unsexed	Child	Total
Skull	57	45	42	61	205
R. Femur	57	41	25	35	158
L. Femur	62	46	24	40	172
R. Tibia	51	37	31	22	141
L. Tibia	49	37	30	25	141
R.Humerus	51	38	20	18	127
L.Humerus	59	42	20	25	146

The number of skulls may be too large since many of the disarticulated crania were incomplete and some have probably been split between two or three contexts. The total number of L. femora probably gives the best indication of the minimum number of individuals buried in the first cemetery, with the number of skulls providing an approximate maximum.

Cemelery 2

The number of individuals buried in the second cemetery was rather easier to assess since little disturbance had occurred and the graves tend to respect each other to a great extent. Thirty graves were excavated originally with a few more being uncovered close by at a later date (contexts over 9000). A

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total of 31 Individuals was seen, plus three disarticulated contexts from the later phase of excavation.

1. Method

Measurements were taken using the methods described by Brothwell (1981), together with a few from Bass (1971) and Krogman (1978). Sexing and ageing techniques follow Brothwell and the Workshop of European Anthropologists (1980). Sciatic notch angles were measured, where possible, using the method described by Dawes (1980, p.22). Stature was estimated according to the regression formulae of Trotter and Gleser (Trotter, 1970).

Teeth are recorded in the form illustrated below.

	R
Maxilla	R. 8765432112345X7UL.
Mandible	07654 //34567-
	A C
Code	Meaning
1 2 3 etc.	Tooth present in jaw.
Х	Tooth lost ante-mortem.
1	Tooth lost post-mortem.
U, u	Tooth unerupted.
О, о	Tooth in process of erupting.
	Jaw missing.
А	Abscess present.
С	Caries present.
R	Root only (if no attrition score is given crown lost p-m).

Lower case letters a-e and u/o are used for deciduous teeth. Attrition patterns are coded according to the scores suggested by Bouts and Pot (1989, modified version of Brothwell's original tooth wear chart). A few abbreviations have been used in the catalogue for commonly occurring pathological conditions and anatomical regions. These are as follows:

OA	osteoarthritis
OP	osteophytosis, osteophytes
C	cervical)
T	thoracic) vertebrae
L	lumbar)
MC, MT	metacarpal, metatarsal
L. & R.	left and right

2. Condition of Material

The majority of skeletons in both cemeteries at Brandon were in poor or fair condition. Only 4 of the articulated skeletons in Cemetery 1 were classed as

"Good". All were very fragmentary and no skeleton was complete. This is largely due to the acidic nature of the soil in which the remains were interred, but disturbance by grave-digging also played a part.

The percentages of articulated skeletons in each condition are given below (it should be noted that such categories are very subjective).

	Cemetery 1		Cemetery 2				
Condition	No. of burials	Percentage	No. of burials	Percentage			
V. Poor	21	14.4	0				
Poor	44	30.1	17	54.8			
Poor - Fair	21	14.4	6	19.4			
Fair	49	33.6	7	22.6			
Fair - Good	7	4.8	1	3.2			
Good	4	2.7	0	-			

There was no great difference between the sexes, although the majority of adult skeletons which could not be sexed not surprisingly fell into the very poor category.

3. Demographic Analysis 3.1. Age at Death

No attempt has been made to calculate the mean age at death for this population because the ageing of adult skeletons is in general extremely inaccurate. The following table gives a possible distribution of age for all those articulated skeletons aged more precisely than simply "adult" in Cemetery 1.

Age Group	Suggested age range	Male		Fem	ale		l (with exed)
		n	%	n	%	n	%
Young adult	18-25	11	23.4	13	31.7	29	29.0
Young - MA	25-35	13	27.7	10	24.4	24	24.0
Middle-aged	35-45	15	31.9	10	24.4	29	29.0
MA - Old	45-55	5	10.6	3	7.3	9	9.0
Old	55+	3	6.4	5	12.2	9	9.0

Six males, five females and 11 unsexed individuals could only be categorised as adults. It should be noted that many of the individuals in the categories "Young - Middle-aged" and "Middle-aged - Old" were put there simply due to the fact that it was impossible to decide which single category they fitted into. The suggested age range should therefore be seen as only a rough guide.

In this population the differences between male and female age distribution do not appear to be particularly great. The normal pattern in Saxon and Medieval cemetery populations tends to suggest that women were dying

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earlier in life than men, and this general trend is echoed here to some extent. However, it can be seen from the table that a larger proportion of women had survived to old age than men. The reasons for this are uncertain and in view of the small number of individuals in this category it is perhaps wise not to speculate too far. The cause may lie in the methodology employed in determining adult age in this population (see Catalogue for details of age determination for individual skeletons).

Of the 11 adults (3 males, 8 females) in Cemetery 2, two males could not be aged more closely than "adult", the other male was thought to be old, and the females were fairly evenly distributed through the categories (1 young, 2 Y-MA, 2 MA, 3 MA-Old).

The numbers of children found in each age group (and percentages of aged children) for both cemeteries are recorded in the table below.

Age Group	Ceme	tery 1	Cemetery 2		
	n	%	n	%	
Newborn - 2 years	6	23.1	10	50.0	
2 - 6 years	4	15.4	5	25.0	
6 - 12 years	10	38.5	2	10.0	
12 - 16 years	4	15.4	2	10.0	
16 - 18 years	2	7.7	1	5.0	

There were also 2 children and 3 "sub-adults" in Cemetery 1 who could not be aged more closely than those categories.

It can be seen from the table that the greatest proportion of infants and young children were buried in Cemetery 2. Child burials in Cemetery 1 were more evenly spread, but with slightly more emphasis on older children. Although on present evidence the skeletons from Cemetery 2 seem to suggest some form of selective burial, the greatest proportions of individuals being children and women, since the cemetery has not been fully excavated it is difficult to make any definitive statements about the nature of its population, or indeed use it as a comparison group for Cemetery 1. Having said this, it seems unlikely that a sample excavation of Cemetery 1 would have produced a similar picture regarding sex and age distribution.

3.2. Sex Distribution

Based on the number of L. femora from Cemetery 1 (both articulated and disarticulated remains) it seems likely that at least 62 men, 46 women and 24 unsexed individuals were originally buried there. If articulated skeletons only are counted the totals are 53 men (16 ?male), 40 women (16 ?female) and 24 unsexed adults. Both these totals give a ratio of men to women at this site of 57:43, which is a fairly common one at both monastic and secular sites of the period. Since a large proportion of the population is unsexable such sex ratios may provide a misleading picture, and it may be that the sexes would

actually be distributed closer to the norm of 1:1 if children and unsexed adults could be taken into account.

Of the 11 adults buried in Cemetery 2, three were male (two of which were only possible males) and eight were female (three possibles). As noted in the previous section, there does seem to have been some kind of selective burial process at work in this cemetery from the current evidence.

4. Metrical and Morphological Analysis

Measurements for individual skeletons and disarticulated remains, together with means and ranges, are recorded after the Catalogues.

4.1. Stature

The following means and ranges of height were calculated for the articulated skeletons from Brandon.

	Sex	n	Mean	Range
Cemetery 1	Male	24	171.6	160.8 (5' 3") - 186.5 (6' 1")
_	Female	15	161.0	147.8 (4'10") - 177.7 (5'10")
Cemetery 2	Male	0	-	-
	Female	2	161.5	156.8 (5' 2") - 166.3 (5' 6")

These means and ranges are fairly normal when compared with contemporary and later cemetery populations in East Anglia and the North of England, although they are short compared with the rather tall Burgh Castle population (Anderson and Birkett, 1989).

4.2. Cranial Indices

The cranial index (100L/B) could only be calculated for ten skulls from Cemetery 1 (of which 7 were disarticulated) and none at all from Cemetery 2. Other indices could only be calculated for 3 individuals at the most and these will not be considered for that reason (they are recorded in the tables of measurements at the end of the Catalogue). Such a small sample makes comparisons with other sites rather hazardous, but a few general observations can be made, provided that they are not viewed as conclusive.

Six of the skulls were male and four female. Of the male skulls, 5 were dolichocranial and one was mesocranial (but only just!). The females were distributed evenly between these two categories. The majority of populations after the Bronze Age and before the Medieval period tend to fall into the long-headed or dolichocranial category, and this seems to be the trend at Brandon. It also seems to be the case that females at similar sites often tend to be more round-headed than males, and the 50% distribution of the females at Brandon suggests a similar occurrence there. The means of this index for each sex at Brandon (73.1 for males, 73.5 for females) are very similar to

those found at the contemporary sites of Burgh Castle, Norfolk (Anderson and Birkett, 1989), and North Elmham (Wells, 1980).

4.3. Meric and Cnemic Indices

The platymeric and platycnemic indices measure the relative flattening of the femur (antero-posteriorly) and the tibia (medio-laterally) respectively. The actual cause of the two conditions is unknown, and it is thought unlikely that there is any relationship between them. They are recorded here simply for comparison with other groups. The distributions of the two indices for both sexes, including disarticulated bones which could be fairly reliably sexed, are presented in the following tables.

Cemetery 1 Meric Indices	Male	<u>,</u>			Fem	ale		
	Left		Right		Left		Right	
Category	n	%	n	%	n	%	n	%
Hyperplatymeric	12	32.4	12	32.4	13	41.9	5	21.7
Platymeric	21	56.8	19	51.4	17	54.8	17	73.9
Eumeric	4	10.8	6	16.2	1	3.2	1	4.3

Cemetery 2 Meric Indices	Male	Male				Female				
Category	Left		Right		Left		Right			
	n	%	n	%	n	%	n	%		
Hyperplatymeric	0	-	0		3	50.0	2	40.0		
Platymeric	2	66.7	1	100	1	16.7	2	40.0		
Eumeric	1	33.3	0	-	2	33.3	1	20.0		

The tables show that, in Cemetery 1 at least, femora tended to be narrow or very narrow antero-posteriorly. The figures from Cemetery 2 are too small to draw any conclusions.

Cemetery 1 Cnemic Indices	Male				Fem				
	Left		Right		Left		Right		
Category	n	%	n	%	n	%	n	%	
Platycnemic	6	33.3	3	17.6	3	18.8	2	12.5	
Mesocnemic	8	44.4	9	52.9	5	31.3	8	50.0	
Eurycnemic	4	22.2	5	29.4	8	50.0	6	37.5	

Cemetery 2 Cnemic Indices	Male				Female				
	Left		Right		Left		Righ	t	
Category	n	%	n	%	n	%	n	%	
Platycnemic	1	100	0	-	0	-	0	-	
Mesocnemic	0	-	1	50.0	0	-	1	33.3	
Eurycnemic	0		1	50.0	2	100	2	66.7	

The majority of tibiae fall into the two broadest categories at both cemeteries (although again the figures for Cemetery 2 are too small for conclusions to be made).

Relatively narrow bones are thought to be common in earlier populations, and in the case of Brandon this is true of the femora but not the tibiae. A similar pattern was found at Burgh Castle, Norfolk (Anderson and Birkett, 1989). Without a rational explanation of the cause of platycnemia it is impossible to suggest a reason for this.

4.4. Non-Metric Traits

Non-metric traits are small non-pathological variations in the "normal" anatomy of the skeleton. They can be scored for any bone in the body, but have been studied in most detail on the skull. Most are at least partly genetically determined (although the genetic components of single traits are unknown at present). Cranial non-metric scores for Brandon are recorded in the table below (for a breakdown into sexes and individual skeletons see the tables at the end of the catalogue, and notes in the catalogue).

Trait	Side	Pres	ent	Out o	f	%	
Cemetery:		1	_2	1	2	1	2
Metopism		7	1	82	13	8.5	7.7
Parietal Foramen	R	37	4	59	7	62.7	57.1
	L	32	Э	53	7	60.4	42.9
Coronal Wormian Bones		2	0	35	8	5.7	-
Sagittal Wormian Bones		4	0	35	8	11.4	-
Lambdoid Wormian Bones		26	1	40	4	65.0	25.0
Epipteric Bone	R	3	0	6	0	50.0	-
	L	2	0	7	0	28.6	-
Parietal Notch Bone	R	1	0	8	0	12.5	-
	Ĺ	0	0	8	0	-	-
Inca Bone		3	1	60	9	5.0	11.1
Asterionic Bone	R	0	0	7	0	-	-
	L	0	0	8	0		
Post-condylar Canal	R	7	0	25	2	28.0	-
	L	12	0	31	3	38.7	-

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Pre-condylar Tubercle	1	5	0	50	5	10.0	99 (9 - 92 (9 - 94 - 94 - 94 - 94 - 94 - 94 - 94 -
Double Hypoglossal Canal	R	9	2	56	7	16.1	28.6
	l_	11	2	59	7	18.6	28.6
Torus Palatinus		1	1	39	6	2.6	16.7
Tori Maxillares	R	1	0	45	5	2.2	
	L	1	0	44	5	2.3	
Torus Auditivus	R	0	1	66	9	-	11.1
	L	0	1	66	9		11.1
Tori mandibulares	R	2	1	61	10	3.3	10.0
	L	2	1	61	10	3.3	10.0

The traits listed in the table were scored systematically in this population. Other traits were noted when they were seen and are recorded under the skeleton concerned in the catalogue. It should be noted that there may be a bias in the scoring of wormian bones, since it is easier to record them as present than as absent (the whole suture has to be available for the latter but not for the former). The percentages for most traits are higher than those found in similar populations (e.g. Burgh Castle), and this may be due to the smaller numbers involved at Brandon, although minor differences between contemporary groups are probably to be expected.

Non-metric traits can be used to suggest tentative relationships between individuals buried in a cemetery. Some of the more uncommon traits found at Brandon were plotted on the site plan to see if any occurred in neighbouring skeletons. Plotting of Inca bones and tori mandibulares did not appear to show any clear relationships between skeletons. Epipteric bones were found in the skull of Sk. 4017 and disarticulated skull No. 1883 which are guite close together. The trait of metopism seems to show the most convincing groupings at this site, however. To the north-east of the cemetery two skeletons and two disarticulated skulls show the trait (Sk. 4038, Sk. 4016, No. 4024 & No. 4047), and on the south-western side four more skeletons are metopic (3095, 3060, 3073 and 1900). These remains seem to be close enough together for the groupings not to have occurred by chance, and similar groupings of metopic individuals have been found in other cemeteries. There does seem to be a fairly high probability that those individuals listed above have some kind of genetic affinity with each other. When assessing information of this type, however, it is as well to remember that married women were most likely to have been buried with their husband's family rather than with their own relations, and that there is usually a long period of burial activity in large cemeteries, often with hundreds of years between the first and last burials. Establishing familial relationships within a burial population is thus more difficult than may at first be apparent.

5. Dental Analysis

The following table shows the numbers of dental remains available for study in this population, including disarticulated remains.

	Cemete	ry 1	Cemete	ry 2
Number of:	Male	Female	Male	Female
Individuals	64	55	3	9
Maxillae	53	40	2	8
Mandibles	48	45	3	9
Position:				
Expected	1616	1360	80	272
Missing	334	276	14	38
Observable	1282	1084	66	234
Post-mortem Loss	253	300	7	32
Ante-mortem Loss	99	46	31	12
Unerupted/absent	13	21	0	2
Remaining teeth	917	717	28	188

In addition, 52 unsexed adults had teeth/jaws (35 maxillae and 37 mandibles), and there were 51 children with dental remains (32 maxillae, 41 mandibles) in Cemetery 1. Cemetery 2 contained 3 unsexed adults and 17 children with teeth.

5.1. Ante-mortem tooth loss

Ante-mortem loss of one or more teeth was observed in 25 males and 13 females in Cemetery 1, giving percentages of 39.1% and 23.6% respectively, 31.9% overall. Of these, 17 males and 8 females had caries and/or abscesses. Tooth loss by position in the jaw is recorded in the following tables (U = upper jaw, L = lower jaw).

	nere	<u>, </u>	WICh	~~												
U	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
N	21	35	36	42	44	44	41	40	39	41	44	42	44	39	39	31
+	1	3	8	5	2	1	2	1	1	3	1	3	4	7	4	0
%	5	9	22	12	5	2	5	3	3	7	2	7	9	18	10	+
L	8	7	6	5	4	3	2	1	[1	2	3	4	5	6	7	8
N	41	44	45	43	41	42	39	40	38	37	42	44	41	40	43	38
+	4	6	8	1	3	1	2	5	4	2	1	2	2	7	3	2
%	9	14	18	2	7	2	5	13	11	5	2	5	5	18	7	5

Cemetery 1: Males

Cemetery 1: Females

U	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
N	24	30	33	31	29	30	29	28	26	25	28	28	29	33	32	24
+	1	1	3	0	1	1	0	1	0	0	0	1	0	4	0	0
%	4	3	9	-	4	3	-	4	_	-		4	-	12	-	-
		100	-								Contraction of the local division of the loc				Summer Street Street Street	the second s
	8	1	6	5	4	3	2	1	1	2	3	4	5	6	7	8
L N	8 29	7 39	6 42		4	3 41	2 41	1 40	1 41	2 39	3 41	4 41	5 39	6 40	7 36	8 34
L N +	0	7 39 4			_	-		1 40 5	1 41 3		_		_	-	7 36 0	

Ante-mortem tooth loss is highest in the molars (particularly the first) and lower mesial incisors of both males and females, and is generally greater in males than in females. A similar pattern was observed at North Elmham (Wells, 1980), and at Burgh Castle (Anderson and Birkett, 1989).

In Cemetery 2, two men and four women had ante-mortem loss of one or more teeth, giving percentages of 66.7% and 44.4% respectively, 50% overall. These figures are higher than those for Cemetery 1, probably due to the smaller samples in Cemetery 2, and also to the larger proportion of older individuals buried there. The distribution of tooth loss in Cemetery 2 has not been calculated owing to the small numbers involved (individual dental charts are presented in the catalogue).

The table below records the total ante-mortem tooth loss by sex as a percentage of the total identifiable positions for the two cemeteries at Brandon, and some other sites for comparison.

Site	Male	Female
Brandon Cemetery 1	7.7	4.3
Brandon Cemetery 2	47.0	5.1
North Elmham	9.8	12.1
Burgh Castle	6.9	4.9
Ipswich School Street	15.3	6.7

The high figure recorded for the males in Cemetery 2 is due to the fact that out of the three males buried there, two were almost edentulous. The figures are very close to the almost contemporary site of Burgh Castle, but are lower than the later sites of Ipswich (Mays, 1989) and North Elmham (Wells, 1980).

5.2. Caries

In Cemetery 1 eight males, six females, three unsexed adults and 2 children had carious lesions in one or more teeth. All except one lesion were located in the molar area, the exception being a lesion in the lower R. canine of one unsexed adult (No. 3104). The juveniles were affected in the first deciduous molar in both cases. In Cemetery 2 no males, three females, one unsexed adult and one child were affected. Of the females 3 lesions were in molars, 2 in premolars and one in an incisor. The child (Sk. 4727) was affected in all

Sex	Jaw	Teeth		Caries		%	
	Cemetery:	1	2	1	2	1	2
Male	Maxilla	412	12	2	0	0.5	
	Mandible	494	17	4	0	0.8	-
Female	Maxilla	304	86	7	3	2.3	3,5
	Mandible	413	100	4	3	1.0	3.0
Unsexed	Maxilla	169	7	1	2	0.6	28.6
	Mandible	248	3	3	0	1.2	1. No. 74. Marco (1994). (1997). 1997
Total	Both	2040	225	21	8	1.0	3.5

four second deciduous molars. Percentages of adult carlous lesions are given in the following table.

In both groups the overall female caries rate was greater than that of the males, possibly because the greater rate of male ante-mortem loss was caused in the main by tooth decay. The men, being older on average, had a longer time in which to lose their carious teeth before death. The greater percentages found in Cemetery 2 are probably due to the small numbers of jaws available, although it may be due to a change in diet in the later group.

The overall rate of caries in this population (1% in Cemetery 1) is very low when compared with North Elmham (6.4%) and Ipswich School Street (10%), but is close to that at Burgh Castle (1.9%) and Norwich Castle (2.6%, Stirland, 1985). It is also close to the prevalences found by the present author in three Saxon populations in the North East of England (Jarrow, Monkwearmouth and Blackgate, Newcastle. Anderson, unpublished). A low caries rate may be suggestive of a diet containing few carbohydrates and/or good oral hygiene, although a low mean age at death for a population may also be a causative factor.

5.3. Periodontal disease

Out of 2366 possible positions in Cemetery 1, 59 (2.5%) were affected with periodontal abscesses, these being spread between 18 men and 12 women. In Cemetery 2 the prevalence was 1.9% (4/216), affecting two women only. Similar rates were found at North Elmham (2.0%), Burgh Castle (2.0%) and Ipswich School Street (3.0%). Abscesses were distributed as shown in the following tables.

_																
U	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
N	21	35	36	42	44	44	41	40	39	41	44	42	44	39	39	31
+	0	1	1	3	1	2	0	0	1	0	1	4	1	3	0	0
%	-	3	3	7	2	5	-		3	-	2	10	2	8	-	-
L	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
11	8 41	7 44	0	5 43	4 41			1 40	1 38	-	2	4 44	m	~	7 43	0
11	8 41 0	7 44 0	0	5	4	3	2	1	1	2	3	4	5	~	7 43 1	8

Cemetery 1: Males

THE HUMAN SKELETAL REMAINS FROM STAUNCH MEADOW, BRANDON, SUFFOLK. Sue Anderson.

Introduction

Two Middle-Saxon cemeteries were uncovered during the excavations at Staunch Meadow, one south of the remains of the church and the other 50m to the north of the first. The more northerly of the two is presumed to represent the second phase of burial and was only partially excavated. The human skeletons from the two cemeteries will be discussed separately in this study, although the second cemetery is too small to allow any meaningful comparison with the first.

Cemetery 1

One hundred and fifty-three articulated skeletons were excavated in the area of the first cemetery, although in practice a few contexts thought to be single skeletons are likely to belong with bones labelled separately but found close by. For example, the remains found in contexts 4055 and 4062 almost certainly belong to one individual whose grave was disturbed by 4061. The whole cemetery area was well used and a large amount of disarticulated bone was also uncovered and grouped in 157 contexts. The estimation of a minimum number of individuals was therefore not an easy task. An estimate was made based on the number of skulls and major long bones as shown in the table below.

Bone	Male	Female	Unsexed	Child	Total
Skull	57	45	42	61	205
R. Femur	57	41	25	35	158
L. Femur	62	46	24	40	172
R. Tibia	51	37	31	22	141
L. Tibia	49	37	30	25	141
R.Humerus	51	38	20	18	127
L.Humerus	59	42	20	25	146

The number of skulls may be too large since many of the disarticulated crania were incomplete and some have probably been split between two or three contexts. The total number of L. femora probably gives the best indication of the minimum number of individuals buried in the first cemetery, with the number of skulls providing an approximate maximum.

Cemetery 2

The number of individuals buried in the second cemetery was rather easier to assess since little disturbance had occurred and the graves tend to respect each other to a great extent. Thirty graves were excavated originally with a few more being uncovered close by at a later date (contexts over 9000). A

Cemetery 1: Females

										Contraction of the local division of the loc						
U	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
N	24	30	33	31	29	30	29	28	26	25	28	28	29	33	32	24
+	0	0	Э	1	2	0	1	0	0	1	0	1	0	4	2	0
%	-	-	9	3	7	-	3	-	-	4		4	**	12	6	-
1						_	_	_				the second s	the survey of th		and the second se	
L	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
N	8 29	7 39	6 42	5 41	4 41	3 41	2 41	1 40	1 41	2 39	3 41	4	5 39	6 40	7 36	8 34
N +	8 29 0	7 39 0	6 42 4			3 41 1	2	1 40 0	1 41 0			4 41 0			7 36 2	<u> </u>

The premolars and first molars are affected most, although the range of affected teeth seems to be wider in the maxilla than the mandible.

In Cemetery 2 the four abscesses were in female jaws, two in the maxilla (L. mesial incisor and L. first molar) and two in the mandible (both in the R. M2).

Abscesses are generally formed when the pulp cavity of the tooth is opened, allowing bacteria to reach the tip of the root. This can occur following heavy tooth attrition or it may be caused by a carious lesion. Food particles may also find their way down the side of the tooth, perhaps in a condition such as gingivitis (gum disease) and bacteria may use this as a means of reaching the root apex. At Brandon abscesses were found under 5 female carious teeth in Cemetery 1 and one in Cemetery 2. No male teeth were affected by both (although in all cases teeth have been lost post-mortem from alveoli with abscesses).

5.4. Unerupted/Congenitally Absent Teeth

Since it was not possible to radiograph the dentitions in this skeletal group, scoring of congenital absence or uneruption of the teeth has had to be based on the external appearance of the alveolar bone (except in a few cases were the jaw was broken at the appropriate point), and therefore no distinction can be made between the two possibilities. As is the case in most populations, the majority of "unerupted" teeth were third molars, and the numbers and percentages of these are given in the table below.

		Cem	etery 1			Cemetery 2					
		N	Abs	%	Tot	N	Abs	%	Tot		
Male	Max	53	4	7.5	9.1	0	0	-	-		
	Mand	79	8	10.1	1	5	0		1		
Female	Max	48	3	6.3	14.4	9	0	-	8.3		
	Mand	63	13	20.6	1	15	2	13.3]		

It is usually expected that females will show a greater rate of third molar agenesis, and if the combined percentages for maxillae and mandibles are considered Brandon appears to be no exception. However, the males have a greater percentage of the condition in the maxilla than the females, although the difference is not great. The totals are quite low when compared with other Saxon groups in the area. At Burgh Castle the totals were 13.5% for males and 21.1% for females, and at North Elmham there was a prevalence of 9.4% in the males and 22.6% in the females. The reason for this difference is unknown.

Of the six other "unerupted" teeth in this population, four were canines and two were premolars. Sk. 1917 (male) had an unerupted R. maxillary canine, Sk. 8019 (female) had retained her upper L. deciduous canine (although it was lost post-mortem) at the expense of the adult tooth, Sk. 3135 (female) had no lower second premolars and had retained the second deciduous molar on the right only, and one of the mandibles in No. 4011 contained unerupted canines bilaterally.

5.5. Calculus, Hypoplasia and Resorption

Articulated dentitions were also assessed for the presence or absence of calculus (tartar), enamel hypoplasia and alveolar resorption (although the latter may actually be caused by movement of the teeth rather than resorption of the bone). Calculus and resorption are scored according to the schemes of Brothwell (1981), and hypoplasia has been scored on a similar four point scale. The results are presented in the tables below.

Calculus	Ceme	etery 1				Cemetery 2				
	Male	%	Fem	%	?	%	Male	%	Fem	%
None	6	15.7	4	12.5	4	26.7	1	50.0	0	-
Slight	11	28.9	9	28.1	0		1	50.0	3	37.5
Medium	13	34.2	15	46.9	8	53.3	0	-	2	25.0
Heavy	8	21.0	4	12.5	Э	20.0	0	-	3	37.5
Total	38		32		15		2		8	

The males and females appear to be quite similar, although the males have more calculus in the "heavy" category. This may be because they were older on average and therefore the deposit had longer to form. The women had slightly more calculus overall, possibly due to a softer diet involving less chewing, although the difference is not great. The amount of calculus seems to correlate well with advancing age in this group, and the fact that the large majority of adults were affected suggests that oral hygiene was not good.

Hypo- plasia	Cemetery 1							Cemetery 2			
	Male	%	Fem	%	?	%	Male	%	Fem	%	
None	10	26.3	12	42.8	8	57.1	2	100	4	50.0	
Slight	16	42.1	14	50.0	2	14.3	0	-	4	50.0	
Medium	11	28.9	1	3.6	4	28.6	0	-	0	-	
Gross	1	2.6	1	3.6	0	-	0		0	-	
Total	38		28		14		2		8		

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Enamel hypoplasia was found to occur more in men than in women, and the lesions in males seemed to be more gross. The reasons for this are uncertain since the correlation of these lesions with disease and malnutrition is not well established in modern populations (Dobney, 1988).

The children were also assessed for the presence of enamel hypoplasia, with the following results.

Hypoplasia Children	Cem	etery 1	Cemetery 2		
	N	%	N	%	
None	8	53.4	12	75.0	
Slight	6	40.0	3	18.8	
Medium	1	6.7	1	6.3	
Gross	0	-	0	-	
Total	15		16		

It can be seen that adults were more affected with hypoplasia than were the children. This is not because they had a longer time to develop the lesions since hypoplasia is a malformation of the enamel of the teeth as they grow in childhood. The data from this group suggests that those individuals who survived into adult life show more and grosser lesions than those dying in childhood. It may be that those children dying of disease were affected by acute infections which left no mark on the teeth. Periods when enamel deposition was difficult are suggestive of chronic illness which individuals were generally able to survive.

Resorp- tion	Ceme	tery 1		Cemetery 2						
	Male	%	Fem	%	?	%	Male	%	Fem	%
None	9	25.7	12	40.0	8	61.5	0	-	2	28.6
Slight	9	25.7	7	23.3	1	7.7	1	33.3	3	42.9
Medium	11	31.4	5	16.7	1	7.7	1	33.3	1	14.3
Heavy	6	17.1	6	20.0	3	23.1	1	33.3	1	14.3
Total	35		30		13		3		7	

The males are more affected by resorption than the females, and to a greater degree. This is most likely to be due to the greater average age of the men, although periodontal disease may be a factor as well as old age.

6. Pathology

All prevalences given in the sections below are based on articulated remains only, owing to the difficulties of recording presence of small areas of bone in the disarticulated remains.

6.1. Congenital anomalies

Only two skeletons showed lesions which appeared congenital in origin. Sk. 4027 (Female, young) had an anomalous articulation for the fifth lumbar vertebra on the ala of the first sacral segment. Sk. 4587 (Cemetery 2, ?Young female) had spina bifida occulta (the neural canal is not covered by a bony arch) of the S4-5 sacral segments. Neither of these conditions would have had any effect on the individuals concerned.

6.2. Arthropathies and degenerative disease

Some degree of osteoarthritic change was found in the skeletal remains of 9 men, 7 women and 2 unsexable adults in Cemetery 1, and also in 4 women from Cemetery 2. The prevalence of arthritis in this population is difficult to assess since the bones of many individuals were in such poor condition. Many of the articular surfaces of bones did not survive or were only present in small fragments. Where arthritis was found it tended to involve sclerosis (thickening) of the bone or new bone formation, and it seems likely that purely destructive lesions would not have survived the taphonomic processes at work on this site. The tables below present the general areas of articulation in the skeleton and the presence of arthritis in those areas.

Cemetery 1							
Males	R.			L.			
	N	+	%	N	+	%	
Spine	43	5	11.6				
Knee	31	0	-	34	0	-	
Sacro-iliac	27	0		28	0	-	
Elbow	32	0	-	36	0	-	
Shoulder	28	0	-	42	2	4.8	
Hand/wrist	35	1	2.9	30	0	-	
Foot/ankle	36	0	-	38	1	2.6	
Hips	41	2	4.9	41	2	4.9	

Cemetery 1 Females	R.			L.		
	N	+	%	N	+	%
Spine	31	4	12.9	1		
Knee	22	2	9.1	25	0	-
Sacro-iliac	23	0	-	27	0	-
Elbow	21	0	-	24	0	-
Shoulder	25	1	4.0	22	2	9.1
Hand/wrist	22	0		17	2	11.8
Foot/ankle	26	0	-	25	0	-
Hips	28	1	3.6	32	0	-

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The tables suggest that the areas most affected by osteoarthritis in this group were the spine, the shoulder girdle and the hips. These joints are commonly affected in other Saxon groups, such as North Elmham (Wells, 1980). The relatively high percentage seen for female L. hand/wrist was due to two females with fractures of the forearm and secondary arthritis of the wrist (Sks. 3095 and 3101). Most of the other lesions recorded were likely to have been caused by general usage of the joints. In fact all of the prevalences seem rather low when compared with other similar sites and it may be that many lesions have gone unnoticed because they have been obscured by postmortem changes. It is also likely that there is a bias in preservation of articular surfaces in younger individuals since these are generally stronger and contain proportionally more bone. Older osteoporotic or arthritic joints are more likely to be lost and the percentage of these out of all adult joints is therefore lower than might be expected.

One disarticulated context contained bones with osteoarthritic lesions. A R. humerus head and L. radius head were affected in No. 3067.

In Cemetery 2 one female spine was affected out of six assessable (16.7%), and 3 out of 6 R. (50%) and one out of 7 L. (14.3%) hip joints were involved. No other arthritic changes were noted in this small group.

Another degenerative joint disease, which can be found in association with osteoarthritis but is more frequently seen on its own, is osteophytosis. This involves the growth of bony prominences around the joint and is related to advancing age. It is commonly seen in the spinal column but may occur on any articular border in the skeleton. In Cemetery 1, 46 individuals (26 male, 18 female and 2 unsexable adults) had some degree of osteophytosis on one or more joints, and in most cases this was only slight. In Cemetery 2 only three females were affected. The following tables show the frequencies of osteophytosis seen in the main articular areas of the skeleton.

Cemetery 1						مراطلة بالملاا الذار عدي يصفحهم
Males	R .			L.		
	N	+	%	N	+	%
Spine	43	20	46.5			
Knee	31	1	3.2	34	2	5.9
Sacro-iliac	27	3	11.1	28	3	10.7
Elbow	32	5	15.6	36	5	13.9
Shoulder	28	3	10.7	42	2	4.8
Hand/wrist	35	0	~	30	1	3.3
Foot/ankle	36	3	8.3	38	5	13.2
Hips	41	6	14.6	41	8	19.5

Cemetery 1						
Females	R.			L.		
	N	+	%	N	+	%
Spine	31	14	45.2]		
Knee	22	2	9.1	25	2	8.0
Sacro-iliac	23	1	4.3	27	1	3.7
Elbow	21	0	-	24	1	4.2
Shoulder	25	2	8.0	22	1	4.5
Hand/wrist	22	0	-	17	0	-
Foot/ankle	26	0	-	25	0	-
Hips	28	1	3.6	32	1	3.1

The spine shows the greatest amount of osteophytosis in both sexes, as is the case in most populations. There does seem to be a difference between the sexes not only in the amount of osteophytosis (which is less in females) but also in the site most affected after the spine. In males the hips and elbows have the greatest prevalences and in females the knee and the shoulder seem to be affected most. This seems to suggest differential usage of the joints between the sexes, and perhaps some occupational difference can be inferred.

Disarticulated context No. 3092 contained an innominate with lipping of the iliac crest at the widest point, possibly as a result of trauma.

In Cemetery 2 only the females showed evidence of osteophytosis. Two out of 6 spines (33.3%), one out of 6 L. shoulders (16.7%), 2 out of 6 R. hips (33.3%) and one out of 7 L. hips (14.3%) were affected.

Only one skeleton showed evidence of the condition known as DISH (diffuse idiopathic skeletal hyperostosis) in which there is new bone growth around most of the joints, in conjunction with calcification of the ligaments and cartilage (particularly thyroid and costal), and sometimes ankylosing hyperostosis (fusion of the spine). It is generally seen in middle-aged or older men. Sk. 8003/8004 (middle-aged male) showed lipping of most bones at joints and muscle attachments, and there was a large lip of bone on the lower left border of the T9 vertebral body of the sort associated with ankylosing hyperostosis. A number of other old individuals had calcified ligamentous attachments or osteophytosis of a number of joints, but none of these lesions could be categorised as DISH when they occurred alone.

Osteoporosis is a disease generally associated with old age, although it can occur in association with some deficiency diseases. Three skeletons seemed to have osteoporotic bones in this group. The long bones of Sk. 3086 (Female, 25-35?) had very thin cortices, as did the few remains of Sk. 4002 (unsexable, old), and Sk. 8007 (middle-aged female), although the femora of the last appeared rather heavy. Unfortunately it is difficult to be certain whether these changes are caused by ante-mortem processes due

to advancing age, or whether they have occurred after death due to postmortem erosion. In these three cases the diagnosis seems fairly reliable. A R. humerus in disarticulated context No. 3067 may also have been affected.

One other arthropathy which may be present at Brandon is ankylosing spondylitis. This is a disease of the spine in which fusion of the vertebral bodies and the neural arches occurs progressively from the sacrum to the neck. Unlike ankylosing hyperostosis, mentioned above, the spine becomes completely rigid in time and movement becomes very difficult for the individual involved. It has a male:female ratio of 9:1. The first stage of the disease is bilateral symmetrical fusion of the sacro-iliac joints, and such a condition is present in Sk. 4558 (Female, c.30-35) from Cemetery 2 (Plate 1). The diagnosis has to be tentative due to the ascribed sex of the individual. In fact sexing of this skeleton was rather difficult, the skeleton showing both male and female traits, so it is possible that the individual was in fact male. If this were so, greater weight could be given to the suggested cause of the lesions noted above.

6.3. Spinal pathology

The most common vertebral pathology in this population (after osteophytosis) was the condition known as Schmorl's nodes. This is a condition in which small depressions are formed in the upper and lower surfaces of the vertebral bodies due to breakthrough of the nucleus pulposus of the vertebral disc. It is associated with physical stress in young people. In the Brandon population it was observed in 9 males and 9 females from Cemetery 1, but none was seen in Cemetery 2. This fairly low prevalence can be accounted for by the poor condition of most vertebral bodies, with post-mortem erosion often occurring in the areas where Schmorl's nodes would be expected to develop.

A slight scoliosis was seen in the spine of Sk. 3081 (middle-aged female). The L5 vertebra was slightly wedged, the R. side being shorter than the L. (20mm and 25mm respectively). However, the L3 was slightly wedged in the other direction (27mm R., 24mm L.) and the two probably compensate each other to some extent.

A vertebral anomaly was seen in the L4 of Sk. 3101 (?middle-aged ?female). The proximal anterior border appears as though it had been pushed downwards, and osteophytes and reactive bone growth have formed around the anterior of the body and at the border. The vertebra is not wedged, the body simply curves downwards to the border. Unfortunately some post-mortem erosion had occurred and it was difficult to suggest a cause for this lesion. It may be a form of anterior epiphyseal dysplasia (see Section 6.5).

6.4. Cribra orbitalia and porotic hyperostosis

Cribra orbitalia is a lesion of the roof of the orbit (the part of the skull which encloses the eye). In its mildest form it consists of a number of small pits over

most of the roof area, but it can progress and growth of fibrous bone may occur over the surface of the orbital roof. It has been associated with iron deficiency anaemia. In Cemetery 1 the lesion was seen in 4 children, 5 females, 6 males and 2 unsexable adults. In Cemetery 2 it affected one male and 6 children. The following table records the prevalences.

Cribra Orbitalia		Cem	etery 1		Cemetery 2			
		N	+	%	N	+	%	
Male	R	23	5	21.7	2	1	50.0	
	L	21	6	28.6	2	1	50.0	
Female	R	19	4	21.1	6	0	-	
	L	19	4	21.1	7	0	-	
Unsexed	R	2	0	-	0	0	-	
	L	3	2	66.7	0	0	-	
Child	R	5	2	40.0	10	6	60.0	
	L	7	Э	42.9	9	6	66.7	

There is very little difference between males and females in Cemetery 1. The children seem to show some difference between the two groups, perhaps because of a difference in average age at death. Younger children may be more likely to die of anaemia than older ones. The figures for adults in Cemetery 2 and unsexed individuals in Cemetery 1 are too small to make any conclusions. Three individuals from disarticulated contexts also had cribra orbitalia, these being No. 3075 (child, c.3 years), No. 3082 (child), and No. 3085 (child, c.2 years).

In most cases the lesions were at the least developed stage, i.e. porotic or cribriotic (Brothwell, 1981), but a few individuals (mainly juveniles) showed a more advanced stage of the lesion with fibrous new bone on the roof surface.

Two adults in Cemetery 1 showed possible evidence of porotic hyperostosis, a lesion of the cranial vault which is associated with anaemia. Sk. 1746 (?middle-aged ?female) had a thickened frontal bone with enlarged diploe, suggesting the need for more blood to be manufactured. Sk. 4021 (young male) had pitting on both parietals, the superior part of the frontal and the occipital. This may be indicative of a scalp infection, but it could also be healed porotic hyperostosis, especially since cribra orbitalia was also present in both orbits. An extremely thick disarticulated skull (No. 1901) may also have been affected with a blood disorder, and disarticulated context No. 4035 contained a male skull with pitting and some striation on the parietals, possibly the result of healed porotic hyperostosis.

Children tend to show the most extensive lesions connected with anaemia, and at Brandon two children had unhealed porotic hyperostosis. Sk. 3094 (18-24 months) had two fragments of skull with a roughened and porous outer table, and microscopic examination of the cross-section revealed a "hair-onend" appearance which is characteristic of the disease radiologically. In Cemetery 2, Sk. 4946 (c.3-4 years) had porous bone symmetrically on both parietals running along the lambdoid suture in a band approximately 20-25mm wide, the R. parietal being slightly more affected than the L. (Plate 2). Some labyrinthian lesions were apparent. The frontal bone was involved in the region of the brow ridges and laterally on both sides with slight porosity. The temporals are also affected to a lesser extent, and the malar bones seem slightly porous. A cross-section of the parietals shows an intact inner table. enlarged diploe and lack of outer table. The mandibular chin area and the palate also show some porosity. The unerupted M1's are stained blue along the growth lines (transversely across the crowns), probably due to some enamel growth defect, although discolouration may have occurred postmortem due to easier take-up of minerals by some parts of the teeth. The coloured lines appear at similar stages in the development of the teeth, when the child was approximately 9-18 months old. The adult maxillary incisors are also affected at a similar stage in their growth. Cribra orbitalia is present with fibre bone as well as pitting (Plate 2). As well as the cranial lesions observed in this child, the femora were also involved (Plate 3). A cross-section of the L. femur shows thickening of the anterior part of the shaft with a layer of new bone outside the periosteum, and widening of the lower half of the shaft with enlargement of the medullary cavity. The cortex is thinner than normal. The R. femur was probably also affected but is in poor condition. Most of the rest of the skeleton was not preserved. These lesions are consistent with a diagnosis of a deficiency disease, most probably anaemia.

One other child from Cemetery 2, Sk. 4796 (newborn-6 months) also showed post-cranial lesions suggestive of a deficiency disease. The cortex of the R. femur appears abnormally thick with new fibrous bone growth on the outer surface. Unfortunately no other major bones survived from this individual, so the diagnosis can only be tentative.

6.5. Circulatory disturbances

The two most common diseases in this category which are seen in archaeological populations are osteochondritis dissecans, and anterior epiphyseal dysplasia of the vertebrae. Both are types of aseptic necrosis involving the "death" of a small area of bone. Osteochondritis dissecans is characterised by a small pit in an articular surface, from which a small area of bone has broken off. It often occurs in younger individuals (particularly males), is probably associated with physical stress or trauma, and may heal spontaneously. It occurred in one female and 5 males from Cemetery 1, none in Cemetery 2, as well as femora from two disarticulated contexts (No. 3067, fragment of femoral condyle with large healed lesion; No. 4011, L. femur distal lateral condyle with healed pit and secondary arthritis dorsally of pit). Details of the lesions in articulated remains are given below.

Sk.	Sex	Bone affected	Details
1850	М	Both tibiae	Bilaterally in medial malleolus, possibly developmental defect?
3101	F?	L. scapula	Glenoid, anterior border, small pit surrounded by ridge of new bone (12x4mm).
3106	M?	R. femur	Distal medial condyle, small pit (6x3mm) and larger pit superiorly on the lateral border (8x5mm).
3145	M?	L. humerus	Lateral condyle, healed lesion (6x3mm) with smooth floor and lipped edges.
4077	М	R. talus	Superio-medial edge, healed oval lesion with cone-shaped new bone deposit (10x6mm).
8005	М	L. femur	Medial distal condyle, large lesion with pitted floor and slight healing at edges (19x15mm, 5mm deep).

Anterior epiphyseal dysplasia occurs in 2 males and one female from Cemetery 1 and one male from Cemetery 2. Sk. 1706 (male, 25-35?) has a pit in the superior margin of one lumbar vertebra, and the section of body below has formed a lip to compensate. Sk. 1830 (?middle-aged male) has a slight aseptic necrosis of the superior border of the ?L2. The upper border of the T9 and the lower margin of the T7 of Sk. 1838 (?female, c.25-30) have collapsed slightly on the R. side, and this may be due to a necrotic lesion, or to a neuromechanical process such as Scheuermann's Disease (Ortner and Putschar, 1985). Sk. 4849 (adult ?male) from Cemetery 2 had one fragmentary thoracic vertebra with possible aseptic necrosis of the lower border. A lower T. vertebra from disarticulated context No. 3122 also had a necrotic lesion in the upper body.

6.6. Infectious disease

Very few infections are recognisable in the skeleton, and those which are seen are generally of the non-specific variety (the causative organism cannot be identified). The three major infectious diseases which are recognisable in the skeleton (leprosy, tuberculosis and the syphilitic group) are relatively rare in most archaeological populations, and Brandon is no exception.

The most common site for periostitis (an infection of the outer layer of the bone) in most archaeological populations is the lower leg. In Cemetery 1 at Brandon, 7 males, 7 females and 2 unsexable adults were affected with some form of this disease, ranging from slight graining and new bone growth (most cases) through to deep graining and thickening of the bone. In most cases the L. tibia and fibula were more affected than the R. although the reason for this is unknown. One skeleton (8008, ?male) had a periosteal reaction on all the leg bones, but in all other cases only the lower leg was involved. Bones

from three disarticulated contexts were also involved. No. 3087 contained a fragment of adult L. tibia shaft with fibrous bone growth, No. 3089 contained a L. tibia and fibula with periosteal reactions, and No. 9355 from Cemetery 2 included a pair of tibiae with slight graining on the shafts.

The distal halves of both femora of Sk. 3116 (young female) appear unusually large (Plate 4), and there is a small lesion just above the condyles of the R. femur dorsal surface (smooth edges, roughened floor, 8x5mm). The R. tibia shows graining and enlargement of the shaft, a thickened cortex and fibre bone laterally (Plate 5). The fibula is also affected, especially the distal half. The L. tibia in No. 3126 (disarticulated) belongs to this skeleton, and shows the same lesions as the R. (Plate 5). The metatarsals may also be slightly enlarged but there is too little preserved to be certain. The epiphyses and patellae appear to be unaffected. A lytic lesion was observed close to the lateral edge of the roof of the L. orbit. It was circular, c.6mm in diameter, with a pitted floor and reactive bone growth and destruction. The leg lesions are suggestive of osteomyelitis, but there are no cloacae, and it is unusual to see bilateral symmetrical lesions in this disease. A more reasonable diagnosis is probably chronic periostitis or osteitis of uncertain aetiology.

Osteomyelitic lesions were seen in one disarticulated bone, a R. femur from No. 9355 (Cemetery 2).

Two skeletons had an infection of the L. maxillary sinus. In Sk. 3135 (female, <30?) this was probably due to the breakthrough of an abscess around the first molar. The cause of that in Sk. 4019 (male, old?) is unknown. Abscesses were probably a factor in the development of sinusitis in the L. maxillary sinus of a disarticulated male maxilla from context No. 4052.

Two skeletons had skulls with enlarged diploe and ectocranial pitting (1804 and 1836), and the skull of Sk. 1499 had a thickened outer table and slight pitting. These lesions could have been caused by an infection or they could be the result of healed porotic hyperostosis.

The skulls of three individuals had new bone growth within the skull on the inner table. These were Sk. 3131 (child, c.12m), and two skeletons from Cemetery 2, Sk. 4558 (female, c.30-35), and Sk. 4821 (child, 7-8 years). In all three cases the new bone appears to have been deposited in layers and is especially thick on the suture lines. It was thickest on the frontal bones with some spread onto the parietals. The cause of this is unknown, but perhaps some infection of the meninges of the brain might have this effect.

Finally, Sk. 3110 (male, 35-45) had lost both his R. maxillary incisors and the alveolar bone was very resorbed/atrophied. There was a possible infection of the palate with pitting. Such lesions are consistent with a diagnosis of facies leprosa, but in view of the fact that the nasal border was still sharp, the maxilla was broken and the other half lost, and there was no evidence of leprosy in the two remaining metatarsals and one hallucial phalanx, it is unwise to see this as anything more than a tentative suggestion. A maxilla

from disarticulated context No. 3123 had an enlarged nasal aperture and the interior lateral margins of the nose appeared to have been eroded antemortem with possible partial destruction of the anterior nasal spine, pitting and porosity. As with Sk. 3110, any diagnosis made on this evidence alone must be uncertain, but facies leprosa might be considered a possibility.

6.7. New bone formation

Four males from Cemetery 1 (Sks. 1499, 1919, 3072, 3140) have new bone formation on one or both femoral heads below the foveae. All are middle-aged or old and this may be related to the degenerative disease DISH (see Section 6.2), in which ligamentous calcification occurs.

New bone formation which may also be linked with ageing processes was seen in Sk. 1706 (male, 25-35?, slight bone deposit below L. femoral neck), Sk. 1830 (male, middle-aged?, slight new bone growth on fibulae, roughened new bone at insertion of gluteus maximus on L. femur), and Sk. 3113 (middle-aged male, slight new bone growth on linea aspera of L. femur at insertion of vastus medialis?).

Three skeletons had lesions which may be benign neoplasms (osteomata). Sk. 3137 (child, 3-4 years) had a lump of bone at approximately midshaft of one finger phalanx, almost circular in shape, with a smooth periosteum. There was slight remodelling of the medial border of the L. femur approximately one-third down the shaft of Sk. 4018 (?female, 18-21?), forming a patch of new bone above the periosteum, possibly an osteoma or an ossifying haematoma (see Section 6.8). Sk. 4060 (old male) had a similar lesion in the same position (c.20x8mm in size).

6.8. Trauma

Eleven men and eight women from Cemetery 1 were affected by some form of traumatic lesion, ranging from simple ossifying haematomata, through fractures, to unhealed wounds.

The simplest form of traumatic lesion which can be seen in the bone is an exostosis or ossified haematoma. This occurs when a violent movement tears or strains the ligaments at their point of insertion with a bone. If bleeding occurs this will clot and eventually may become bone, forming a small raised bony spur or prominence. In most cases the individual concerned would not have been affected by the lesion once the initial shock and/or pain had passed. Four men and two women had evidence of this least traumatic form of injury. Sk. 1842 (?male, 16-18) had a small exostosis on the linea aspera of the L. femur at approximately one-third of the way down the shaft (c.11mm long, 1mm deep). The R. femoral gluteal tuberosity of Sk. 1850 (young/middle-aged male) was enlarged, with a slightly lumpy appearance, possibly due to tearing of the muscle attachment (21x10mm, c.4mm high). There was an exostosis (35x8mm, c. 2mm high) approximately midshaft of the anterior edge of the R. fibula of Sk. 1898 (female, 1825), which had a slightly lumpy

appearance and appeared to be above the periosteum, and was located at the distal attachment of the extensor hallucis longus. Such a lesion might follow a kick in the shins. Sk. 3098 (male, 25-35?) had a small exostosis just below the proximal border of the left side of the L3 vertebral body, possibly connected with an aseptic necrosis which may have been present (unfortunately the bone was very eroded). A linear exostosis was present at the centre of the soleal line of the L. tibia of Sk. 3144 (?male, 20-25). Sk. 4050 (female, 18-22) had a slight exostosis on the lateral border of the L. humerus approximately one-third down the shaft. None of these lesions could be considered serious, and those affected would have led normal lives after their accidents.

Bones from three disarticulated contexts also showed evidence of ossified haematomata or exostoses. A R. femur in No. 4011 had a lesion in the lower third medially, a L. femur in No. 4031 had an exostosis one third down the shaft on the linea aspera, and a L. humerus in No. 9355 had an exostosis at the distal end at the attachment of the brachioradialis.

Healed fractures were seen in the limb bones of seven individuals (five women and two men), all from Cemetery 1. Two women had fractures of the L. radius. That of Sk. 3101 (?middle-aged ?female) was located approximately three-guarters down the shaft (Colles' fracture) with displacement of the distal quarter medially. Some bone had been lost from the area of the lesion after death, but enough had survived to suggest that the bone was well-healed with little callus, although there was evidence of a slight infection above the area of the fracture (new bone growth and pitting), and there was gross arthritic change to the distal articular facet. Sk. 4009 (?middle-aged female) had a midshaft (parry) fracture of the L. radius, wellhealed with little callus but with slight misalignment. In both cases the ulna was unaffected and probably acted as a natural splint, although it is possible that some artificial splinting may have been used. Similar lesions occurred in the L. ulnae of two other individuals, although unfortunately neither bone was complete. Sk. 4027 (young female) had a well-healed fracture at approximately midshaft with smooth rounded callus formation (27mm thick) and a small exostosis on the ?anterior edge, and Sk. 4043 (?male, c.30) had a similar lesion with small exostosis in a distal fragment of L. ulna. Fractures in the L. forearm are often associated with violence, since the most obvious form of defence against a blow to the head by a right-handed attacker is to raise the left arm. When it occurs in women it has been attributed to wife beating, although this has to be merely conjecture in an archaeological group.

Two skeletons have fractures of a clavicle. Sk. 1907 (male, >30) had a wellhealed midshaft fracture of the L. clavicle, with slight displacement of the lateral half distally and cortical thickening of the distal surface. Sk. 4001 (female, >30) had fractures of the R. clavicle and one lower rib, both with little callus or distortion. The clavicle had a small ?abscess hole in the posterior surface of the lesion. Fractures of the clavicle are often caused by a fall, for example due to slipping on ice (Wells, 1980), but may be the result of violence. A midshaft fracture of the rib is also often associated with violence but could equally be caused by an awkward fall.

Sk. 3095 (female, young/middle-age) bears the scars of several lesions which are likely to be traumatic in origin. There is a deformity of the distal end of the L. radius, where the articulation with the ulna has been forced proximally, perhaps due to a fracture of the ulna, only a fragment of which is present. This fragment shows reactive bone growth around a ?cyst with slight widening of the shaft. The L. scaphoid and lunate are both deformed and flattened, with abnormal facets, slight osteophytosis and pitting. The part of the radius which articulates with these two bones is at a steeper angle than normal, and the anterior border appears to have been pushed outwards. These lesions are suggestive of a fall onto the outstretched palm, in which the bones of the wrist were crushed together.

The L. femur is abnormally thin medio-laterally, and in place of the head there is a flattened articular surface with pitting and osteophytosis (Plates 6 & 7). It seems likely that a traumatic event occurred some time in late childhood which caused a fracture of the neck of the femur, cutting off the blood supply to the femoral head and allowing it to be resorbed. However, if such a fracture occurred in adult life and a fragment of the femoral head remained, it is possible that this has been lost post-mortem since the real acetabulum has been lost in this way. Whichever was the cause, the shaft of the femur has become dislocated onto the ilium where a new flattened acetabulum has formed (Plate 8). There was probably only very limited movement of the joint. The R. femur is abnormally bowed medio-laterally, perhaps because the L. was slightly shorter due to its displacement upwards, and fragmentary remains of the R. knee joint show evidence of arthritis (eburnation and osteophytosis). Loss of the femoral head may be diagnostic of tuberculosis, and there was some reactive bone growth and pitting on the T4-6 vertebral bodies which might be further evidence for this disease. However, in view of the fact that there is no evidence for infection on the femur it seems likely that the lesions seen here are traumatic in origin.

In addition to the lesions recorded above, Sk. 3095 also had a deformity of the R. side of the mandible (Plates 9 & 10). This is shorter than the apparently normal L. side and the condyle is very deformed, being circular in shape with reactive bone growth on the articular surface, as is the glenoid cavity of the skull (Plate 11). The attachments of the genioglossus and geniohyoid are enlarged or "stretched". No signs of infection were visible, other than that around the alveoli of lost teeth, as would be expected. There was extreme overbite, despite the fact that the palate was also deformed, the L. half being narrower than the R., presumably to compensate. These lesions are likely to have been caused by a traumatic event, although the actual mechanisms involved are uncertain. The incident must have occurred in childhood for the mandible to be so much shorter on one side than the other. Whether all these lesions are the result of one accident or several is impossible to say from the evidence available. It is possible that this women was a victim of habitual violence as a child, but it is equally likely that she was accident prone, especially if the femoral head injury occurred first and she had difficulty in walking.

One individual, Sk. 1917 (male, 35-45?), had a crush fracture of the T4-5 vertebrae which had resulted in complete fusion of the bodies but no fusion of the arches (Plates 12 & 13). The two bodies together were the same size as a normal single vertebral body. The anterior borders of the vertebrae immediately above and below were slightly altered to articulate with the crushed bodies. Although such a lesion could occur in tuberculosis, the absence of any signs of infection in the spine or ribs (although there was periostitis/osteitis of the tibiae, see Plate 14) means that this diagnosis has to be rejected in favour of a purely traumatic one.

A healed depressed fracture of the frontal bone slightly to the left of the midline (c.27x13mm in size) was seen in Sk. 4019, an ?old male, (Plate 15). There was slight pitting inside the lesion and possible signs of infection over most of the frontal superior to the lesion. A blow to the head with a blunt object by a right-handed opponent might cause such a fracture.

Three individuals had unhealed cuts on their skulls, and two of these had cuts on other parts of the skeleton. Only one of these skeletons was undisturbed, and it is possibly that the cuts on the other two happened in antiquity when new graves were being dug.

Sk. 4038 (male, young/middle-aged) has a small cut (19mm long) on the lateral border of the R. deltoid tuberosity of the humerus at an angle of c.25 degrees running upwards from lateral to medial (Plate 16). There is no sign of healing. Part of the bone has broken off above the cut and has been lost post-mortem. The L. femoral medial border just below the lesser trochanter also appears to have been cut around (or soon after?) death, based on colouration of the bone. The fragment of detached bone is still present (Plate 17). The cut appears to have started at the posterior edge, with a roughened break at the anterior. As the skeleton was not buried in a prone position it is difficult to see how such a cut could have been made after interment. There is evidence for a root having penetrated the area from the posterior side, however, so perhaps the sliver of bone was pushed off by this. The sliver/cut area is rather large, extending 115mm down the shaft and 20mm across. It is hard to see how an injury of this size could have occurred through the muscles which overlay the rear of the femur, unless considerable force was used. However, the actual cut might only be c.69mm long, the rest of the bone having been forced off by the removal of the weapon. There are two cut areas on the skull. One extends over the region of the lambda and onto the L. parietal, removing the outer table of the skull but probably not piercing the brain (Plate 18). The other cuts through the middle of both parietals from right to left (Plate 19). It is difficult to suggest a scenario which would explain all of these wounds occurring shortly before death. The cut to the R. humerus would probably have had the effect of disarming a right-handed man, leaving him almost defenceless. The cut at the back of the head might have knocked him out, although this would make it difficult to inflict the other cut vertically

through the parletals unless he was still on his knees when it fell. The "lesion" on the medial surface of the femur is less easy to explain. It could have been made by a swordsman standing slightly behind and to the left of a man on horseback, although this would be difficult. It would be easier to stab the back of the leg if the victim were lying face down, but if this was the case then he would be almost defenceless and such a wound would be superfluous to any which might be made in the chest or head areas, where they would be more likely to prove fatal. Unfortunately the ribs were in poor condition, but no cuts were seen on the fragments that remained. It seems likely that most, if not all, of these cuts were made whilst the individual was still alive, especially given the fact that his grave was undisturbed.

Sk. 4055/4062 (?young male) was cut in half by Sk. 4061, and it is possible that any cuts seen on the skeleton of this individual were the result of grave digging. Three cuts were seen on the skull, one diagonally across the frontal from the R. orbit to the L. parietal, one on the R. parietal approximately midway across, and one which shaves the surface of the R. parietal dorsally to the former (PLate 20). Most of the edges of the fragments of skull appear abraded and are the same colour as the outer surface of the skull, implying that the skull was broken in antiquity. A small fragment of one rib also showed a cut mark on the inside. Whether these cuts occurred immediately prior to death or whether they are artefacts caused by gravedigging tools when 4061 was buried is difficult to say. The latter appears most likely.

Sk. 8007 (middle-aged female) has a cut at an oblique angle on the L. parietal extending from near the coronal suture to the lambda (Plate 21). The line is rough but the edges are sharp and well defined. Another small cut runs across the centre of the sagittal suture but unfortunately one side of it is lost in places and it is difficult to see what has happened. Both lesions must have happened in antiquity judging by the colour of the bone, but whether they are ante- or post-mortem is uncertain.

A healed cut was seen on the R. side of the frontal bone of disarticulated skull No. 3079 (Plate 22). It is irregular with rounded edges and a deposit of bone at one end. Another lesion (17mm long) was seen almost at the middle of the L. parietal, but it is incomplete (Plate 23). It has rounded edges, is deeper than the one on the frontal, and is pitted inside. It seems to be a partially healed or infected cut.

Two other skeletons had lesions which might be traumatic in origin. The L. third and 4th metatarsals of Sk. 1900 (?male, middle-aged/old) have abnormal articular facets between them, suggesting that they were pushed together during a traumatic incident, or that they were continually being forced together by the wearing of tight footwear. There was no sign of fracture on the remaining bones of the foot. The R. femoral lesser trochanter of Sk. 4027 (young female) was slightly deformed. It was flatter all over than that on the L., lipped towards the anterior and the anterior groove is much deeper than normal. The appearance suggests that the trochanter has been

pushed/pulled round to the anterior. The cause of this is unknown, but it could well be traumatic.

6.9. Miscellaneous lesions

A number of pathological lesions could not be categorised under any of the headings above, and some could not be diagnosed. These are recorded below.

Sk. 1882 (female, middle-aged/old) appears to have had a withered leg (Plate 24). The R. femur is extremely flattened anterior-posteriorly and the linea aspera is almost non-existent (Plate 25). The cortex is very thin. The R. tibia and fibula also appear thinner anterio-posteriorly and cortically than those on the left. Both tibiae are grained on the medial surface, but the L, is affected to a greater extent than the R. The R. femoral condyle appears slightly flattened (proximal-distal) but only the lateral half was preserved. There is lipping and new bone formation around the borders of the articular surface and the beginnings of eburnation at the most distal point. The proximal R. tibial condyles, also damaged, show eburnation on both sides (middle of the lateral and dorsal edge of the medial) with some pitting and lipping. This is presumably due to the pathological condition noted in the R. leg, although unless this leg was shorter than the L. it is difficult to see why this knee should have had more stress. Unfortunately most of the leg bones are too fragmented for their lengths to be measured. The femur does appear to be slightly shorter. The few fragments of R. foot which remain do not appear to be smaller than their opposite numbers. These lesions are suggestive of poliomyelitis or some other form of paralysis, in which a small diameter and smooth surface of the bone are expected due to lack of use of a limb (Ortner and Putschar, 1985, p.325).

A few lesions which may be developmental defects were noted in this population. Sk. 3090 (young male) had a possible developmental defect of the radial fossa of the L. humerus, where no compact bone covered the floor of the fossa and the cancellous bone was visible. The smooth edges of the defect and the cancellous bone suggested that this lesion had not occurred post-mortem.

The R. greater wing of the sphenoid of Sk. 3113 (young male) had a similar lesion at the centre of the endocranial floor (13x8mm), with rounded borders, pitted floor and some new bone growth. Alternatively this could have been some form of lytic lesion, but the rest of the skull showed no evidence of infection or destruction.

The articular facets on the R. side of the C2-4 vertebrae of Sk. 8015 (male, middle-aged?) are significantly larger than those on the L. The cause of this might be congenital, or it could be developmental.

The R. clavicle of Sk. 4842 (Cemetery 2, ?female, ?35-45) has an extra piece of bone antero-laterally which appears almost as an extra lateral end super-

Imposed on the original. A canal runs through the bone. The articular surface appears to be split into two levels. The cause of this is unknown.

Three skeletons showed evidence of an inflammatory disease of the ischial tuberosities, known as ischial bursitis. This is suggested by new bone growth over the tuberosities, giving them a roughened, craggy appearance. It is caused by continual movement whilst sitting on a hard seat, and is commonly known as "Weaver's Bottom", although it can occur in other occupations. The three individuals affected were Sk. 1499 (male, 45+), Sk. 1836 (adult ?female), and Sk. 3140 (old ?male). A L. ischium from a disarticulated context (No. 4028) also showed signs of the disease.

A L. second metatarsal in disarticulated context No. 3107 was ankylosed to the lesser multangular. This could have occurred due to trauma or because of some form of arthritis, although there may be other possibilities.

Three cranial lesions were noted on the frontal bone of the disarticulated skull from context No. 4003 (Plate 26). One was located on the central line c.25mm below the bregma, and was an irregular rounded shape with new bone around the edge and a central depression, c.7mm in diameter. Another lesion on the R. side of the frontal, c.35mm above the orbit, was an irregular ovoid depression with a pitted floor and slight rounded growth at the edges (13x7mm). A very slight rounded depression lies between the first two. The last two could be fractures but the cause of the first is unknown.

Summary and Discussion

The Middle Saxon population of Brandon appears to have been fairly unexceptional in comparison with other contemporary groups, at least in terms of demography and physical morphology. The male:female ratio of almost 60:40 is comparable with other contemporary secular and monastic burial groups, although the rather small proportion of juveniles in Cemetery 1 and the large percentage in Cemetery 2 require some comment. Of the articulated skeletons in Cemetery 1, 31 were juveniles under the age of 18 years and 122 were adults, that is only 20.3%, whereas in Cemetery 2 64.5% of articulated individuals were children (20 out of 31). It might be suggested that there was differential preservation between the two sites and that more fragile infant bones were lost at the former, but a large proportions of burials in both cemeteries were in poor condition. It is possible that some form of selective burial was occurring, and that younger children in particular were buried together. Until the rest of Cemetery 2 is excavated it is impossible to be certain of any interpretation of these results. The low number of children in the first cemetery can be compared with other Saxon burial groups, for example lpswich School Street (Mays, 1989) where only 16.8% of the inhumations were children and Burgh Castle (Anderson and Birkett, 1989) where 17.6% were juvenile.

Stature and cranial morphology was very similar to other contemporary sites in the region, although the Burgh Castle people were markedly taller than the

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Brandon group, and indeed many other contemporary populations. Percentages of non-metric traits were quite high, perhaps suggesting a relatively small gene pool, although for some traits only very few skulls could be scored thus artificially inflating the figures. Some genetic relationships are tentatively suggested from the presence of the metopic suture when plotted on the plan of Cemetery 1. This trait has been found to cluster in other burial groups and it seems fairly safe to assume that it is a reasonable indicator of family groupings.

The dental analysis yielded some ambivalent results. Despite the low frequencies of ante-mortem tooth loss, caries and abscesses, oral hygiene does not appear to have been of a high standard, since the majority of individuals had medium-heavy deposits of calculus on their teeth. This could be explained if it is assumed that caries was the major cause of periodontal abscesses and ante-mortem tooth loss, and the low frequency of carious lesions was attributable to a diet low in carbohydrates.

Fairly low frequencies of degenerative disease were seen in this population, perhaps due to better preservation of younger, more robust individuals and loss of diseased joints. As with other contemporary populations, however, it was the most common form of pathology to affect the group. Evidence of arthritis, Schmorl's nodes and osteochondritis dissecans suggests that for at least some of the Brandon population physical stress was a fact of life.

The presence of cribra orbitalia in conjunction with porotic hyperostosis suggests that nutrition was not always at its best in this group, and enamel hypoplasia of the teeth might also be evidence of malnourishment. However, extreme lesions of all these conditions were rare and it seems unlikely that people were badly affected by deficiency diseases in this population.

The types of bone infection noted in this population are commonly seen in other groups. Tibial periostitis may be caused by a number of different factors, including trauma and disease of the soft tissue, so its significance in so many archaeological populations is uncertain. Although there was a possibility of two skeletons having been infected with leprosy, and two with tuberculosis, the evidence for either of these diseases at Brandon was very slim, and other causes for the lesions appear more likely in the cases of Sk. 1917 and Sk. 3095.

A fairly high proportion of traumatic lesions was observed in this group. Although many are attributable to accidental injury, particularly the exostoses and some of the fractures, a few are not. At least one (Sk. 4038) of the three skeletons with unhealed cuts seems to have sustained these lesions before death, and it may be that one of them actually caused his death either directly or indirectly. Violence may also have been the cause of the lesions seen on the skulls of Sk. 4019 and No. 3079, and the left forearms of a number of individuals. One can only guess at the causes of the lesions observed in Sk. 3095. Whether they were inflicted intentionally or accidentally will never be known, but her deformities must have made life even harder than normal in a time when living was far from easy.

As well as evidence of violent behaviour in this group, there is some Indication of caring. The possible victim of pollomyelitis (Sk. 1882) must have required a fair amount of nursing during the course of the disease, and some help in adult life also. Sk. 3095 must also have found it difficult to fend for herself.

In general, then, the people from Brandon Staunch Meadow are normal when compared with other groups in their region. Daily life would not have been easy for them, and illness must have been a common occurrence, particularly when it is remembered that the majority of disease is not recognisable in the skeleton. That they were well adapted to their environment is evident from the fact that most of them lived into middle- or even old age by today's standards.

References

- Anderson, S. (Unpublished) A Comparative Study of the Human Skeletal Remains from Late First and Early Second Millenium Sites in the North-East of England. Thesis for the degree of MPhil, Durham University, November 1989.
- Anderson, S. and Birkett, D. (1989) *The Human Skeletal Remains from Burgh Castle, Norfolk, 1960.* AML Report 27/89.
- Bass, W. (1971) Human Osteology, Missouri Arch. Soc., USA.
- Bouts, W. and Pot, T. (1989) 'Computerized recording and analysis of excavated human dental remains', in Ronberts, C.A., Lee F. and J. Bintliff (Eds.), *Burial Archaeology: Current Research, Methods and Developments*, BAR British Series 211.
- Brothwell, D. (1981) Digging Up Bones, OUP/BM(NH).
- Dawes, J. and Magilton, J. (1980) *The Cemetery of St. Helen-on-the-Walls, Aldwark, York.* CBA/YAT.
- Dobney, K. (1988) 'An epidemiological pilot study of dental enamel defects: problems and procedures', (abstract). Paper presented at TAG conference, University of Sheffield, December 1988.
- Krogman, W. (1978) *The Human Skeleton in Forensic Medicine*, C.C. Thomas, Illinois, USA.
- Mays, S. (1989) *The Anglo-Saxon Human Bone from School Street, Ipswich, Sulfolk,* AML Report 115/89.
- Ortner, D. and Putschar, W. (1981) *Identification of Pathological Conditions in Human Skeletal Remains.* Smithsonian Inst., Washington, USA.
- Trotter, M. (1970) 'Estimation of stature from intact long limb bones', in T.D. Stewart (Ed.), *Personal Identification in Mass Disasters,* Smithsonian Institute, Washington, USA.
- Wells, C. (1980) 'The Human Bones', in P. Wade-Martins, *Excavations at North Elmham Park 1967-1972*, East Anglian Archaeology 9.
- Workshop of European Anthropologists (1980) 'Recommendations for age and sex diagnoses of skeletons', *J. Human Evolution* 9: 517-549.

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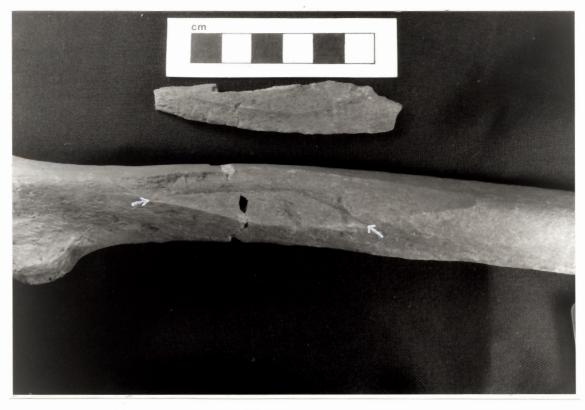
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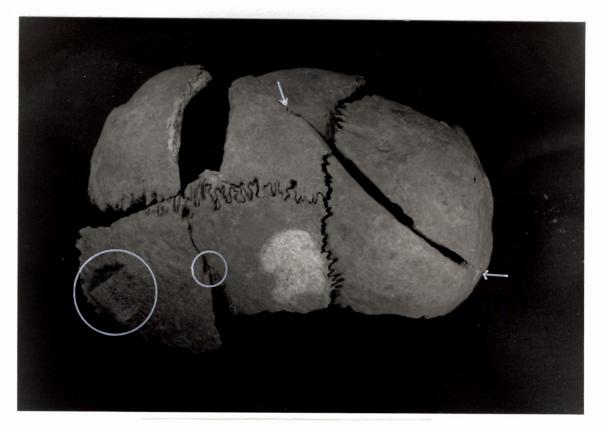
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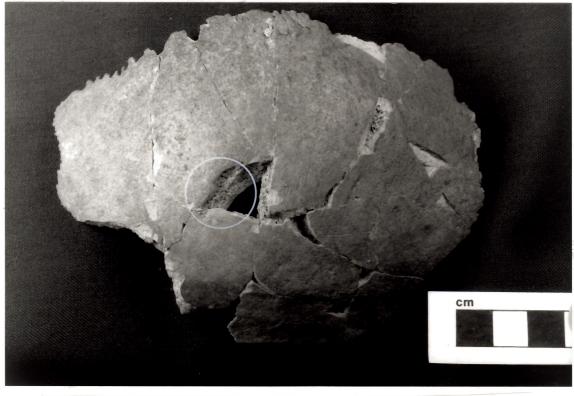
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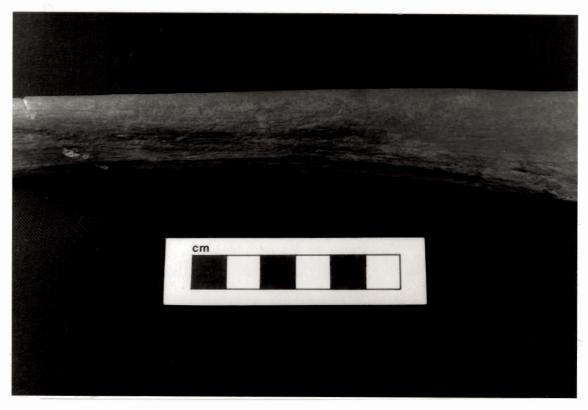
22. No. 3079, healed cut on frontal.



No. 3079, lesion on L. parietal, partially healed cut?



24. Sk. 1882, flattened R. tibia and femur with normal L.



25. Sk. 1882, posterior of femur showing lack of linea aspera.



26. No. 4003, three lesions on the frontal bone.

CATALOGUE OF ARTICULATED REMAINS

Cemetery 1

Sk. 1293 Sex: ?, Age: Adult Condition: V. Poor Small quantity of small fragments of bone, skull and mandible. Some animal bone. Determination of age: Teeth well worn. Determination of sex: Glabella appears small. Teeth: ----4321---------//////2/----Calculus: Heavy Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores: Pathology: Cribra orbitalia of L. orbit. <u>Sk. 1351</u> Sex: ?, Age: ? Condition: V. Poor V. small fragments of pelvis, L. leg and R. fibula. Determination of age: Labelled "early teens", but too little to be certain. <u>Sk. 1385</u> Sex: ?Male, Age: 17-25? Condition: Poor Very fragmentary skeleton, but most bones represented. No maxilla or mandible. Determination of age: Tooth wear slight, but slight OP of vertebrae. Determination of sex: Bones appear robust and guite large. Mastoid processes medium-large. Teeth: R - - - - - - - - - 5 - 7 -876 ---- -2 - 45678 Calculus: Not assessable Hypoplasia: Slight Resorption: Not assessable Attrition Scores: - - - - - - - - - - - 2+- - -2 2+4 - - - - - - 2+-2+2+4 2+2 Non-Metric Traits: Parietal foramen R. side only. Pathology: Slight osteophytosis of vertebral bodies (especially thoracics), one cervical vertebral facet and the L. radial tuberosity. <u>Sk. 1406</u> Sex: ?Female, Age: 18-25+? **Condition:** Poor Most long bones and skull present in fragmentary state, and with surface crumbling away. Determination of age: Slight tooth wear.

Determination of sex: Bones small, but relatively large mastoid processes. Femoral head appears small, Teeth: 87654321 -2345678 876543// 12345678 Calculus; Medium Hypoplasia: Gross Resorption: Medium Attrition Scores: 2-2+3+4+4333+ - 3344+42+2-2-2 4 3-2+4+ - - 5 4+4 2+3-4+2+2-Non-Metric Traits: R. third femoral trochanter. Pathology: Some dental calculus was below the cervical region of the teeth suggesting that this area was exposed in life. Hypoplastic lesions were particularly heavy on the canines and premolars. Sk. 1439 Sex: ?, Age: ?Adult Condition: V. Poor 3 bags of very small fragments, R. lower arm, R. and L. femora, and very fragmentary adult skull. <u>Sk. 1440</u> Sex: ?Female, Age: 25-35 Condition: Poor Frags of vertebrae, femora, scapulae, L. humerus, ulna, pelvis, ?libia, skull and mandible. Determination of age: Tooth wear medium. Determination of sex: Bones appear gracile, but occipital crests may be large. Pelvis has pre-auricular sulcus. Teeth: ----7-- 7 - - - - - - - - - 234567 -Calculus: Medium Hypoplasia: Slight Resorption: Not assessable Attrition Scores: 4 -- 4 - - - - - - 6-5 4 4+5 4 -Sk. 1497 Sex: ?Male, Age: 25-35 Condition: Poor Most of the skeleton from the pelvis upwards. Bones fragmentary and skull surface flaky. Determination of age: Tooth wear medium. No OP on vertebrae. Pubis suggests 24-32. Determination of sex: Sub-pubic angle wide? Bones quite robust, large mastoids, glabella medium, orbit margins rounded. Teeth: R - A? -765-32/123?5678 876543211234X678 C? Calculus: Heavy Hypoplasia: Slight Resorption: Slight

Attrition Scores:

- 3- 4+ 4 - 4 3+ - 5 - 3- - 4 4+ 3-2-

2 3-3+2+2+4 3 ? 3 3 2+2--3 2 2-

Extra bone: Distal radial epiphysis (bagged with cervical vertebrae), frag R. humerus (bagged with L. humerus), juvenile pollicial metacarpal and adult hallucial phalanx with OP and OA at distal end.

Note: Legs may be in disarticulated context 1528.

<u>Sk. 1499</u> Sex: Male, Age: 45+

Condition: Poor-Fair

Most of skeleton present but fragmented.

Determination of age: Teeth well worn, degenerative processes apparent. Determination of sex: Femoral head appears large, mastoids medium, glabella large, occipital robust, U-shaped palate.

Teeth:

- 7 - XX32 / /2//XX78

X76543//X/3/5678

Calculus: None Hypoplasia: None Resorption: Heavy Attrition Scores:

- 6- - - - 5+5+- - 5+- - - 6 4

- 4+ 5+ 4+ 5 4+ - - - - 5 - 6-6-5 4+

Pathology: ?OA of fovea on head of R. femur, and new bone growth on L. femoral head. New bone on proximal half of linea asperae. OP of L4-S1 vertebrae. Slight bowing of both tibiae antero-posteriorly (interosseous line is straight). New bone around ischial tuberosities. L. acetabular rim lipped. L. talus lipped on proximal edge of joint with navicular. Slight pitting and thickening of outer table of parietals. Most of these are simply degenerative processes, but the skull and tibiae seem to show some infection. Extra bone: Part of juvenile basi-occipital, juvenile vertebra, and fragment of animal hoof.

Sk. 1501 Sex: ?, Age: 45+?

Condition: V. Poor

Teeth:

R. arm and scapula, both legs, pelvis, ribs, vertebrae and skull frags, all very fragmentary.

Determination of age: Heavy tooth wear.

Determination of sex: Large mastoid process.

AA R

----32/123456--

--X54321/2345X78

R R

Calculus: Medium Hypoplasia: Medium Resorption: Heavy Attrition Scores:

- - - - 6-5+- 5+5+6-6-6-7 - -

- - - 6-6-6-6 - - 6- - 5+5+- 5 4+

Extra bone: Fragment of proximal juvenile femur (1500?). 2 teeth of child (lower L. M1 and upper R. PM2?).

Sk. 1527 Sex: ?, Age: 35-45? Condition: V. Poor Fragments of small adult: arms, legs, shoulders, ribs, hands, feet, vertebrae and skull. Determination of age: Medium-heavy tooth wear. Determination of sex: Mastoids and occipital crests medium. Teeth: -----------87654 - - - - 345-78 Calculus: Medium Hypoplasia: None Resorption: None Pathology: OP of mid-thoracic vertebrae. Sk. 1541 Sex: ?, Age: 18-25 **Condition:** Poor All bones present but extremely fragmented. Thin fragmentary skull, maxilla and mandible. Determination of age: Light tooth wear. Sacral body unfused. Determination of sex: Smooth glabella, large teeth. Teeth: 87654321 -2345678 87654321 -234567-Calculus: Heavy Hypoplasia: Medium Resorption: None Attrition Scores: 1 2 2+2+2 2+2+2+ - 2+3-2 2+2+2 1 1 2 3 2 2 2 + 2 + 3 - 2 + 3 - 2 2 3 - 2 -Pathology: Dental calculus especially heavy on labial surface of anterior teeth. <u>Sk. 1553</u> Sex: Male, Age: c.18-20 Condition: Fair-Poor Most bones present but fragmented, very fragmentary thin skull. Determination of age: Dist. ulna and prox. hum. unfused, fem. head, prox. tib. and dist. fib. appear recently fused. Determination of sex: Large robust bones, large mastoids, U-shaped palate. Teeth: R - - - 5 / / / 1 1/345678 87654321 12345678 Calculus: Slight Hypoplasia: Medium Resorption: Medium Attrition Scores: - - - - - - 2+ 2+- 3-2+2+3-2+2-2-232-23-2-2+ 2+232-2-322-Extra bone: Extra premolar and molar? Sex: ?Female, Age: 18-25 <u>Sk. 1587</u> Condition: Poor Very fragmentary skeleton and skull. Determination of age: Humerus head unfused? Bones appear adult-sized. Tooth wear slight.

Determination of sex: Femoral head appears large, small mastoid, small occipital crest, small teeth. Teeth: 87-5-3// ---4-67-87-54//1 /234/678 RRR R Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: 1 2 -- 2 +- 2 +- - - - - 2 +- 3 + 2 --1 2 -- - 2 -- -- -- 2+- - 3+2-1 Sk. 1588 Sex: ?Male, Age: MA+? Condition: Poor Very fragmentary and incomplete skeleton and skull. Determination of age: Medium tooth wear. Determination of sex: Bones appear guite large. Teeth: -76543-- --3-5678 8765 - - 21 - 234 - - 7 -Calculus: Medium Hypoplasia: Medium Resorption: Not assessable Attrition Scores: - 2-4 3-2+3+- - - - 3+-3+4 2-2-1 3 4+3 - - 3-5 - 3-3+3-- - 2+-Pathology: Part of R. radius shaft (or possibly ulna) appears abnormally thick, but difficult to be certain due to size of fragment. Slight lipping of vertebrae? <u>Sk. 1594</u> Sex: ?, Age: 25-35 Condition: V. Poor Fragments of clavicles, humeri, radii, femora, tibiae, L. ulna, pelvis and skull. Determination of age: Medium tooth wear. Teeth: ---5///1 ------7 - - 4321 - 23 - 567 -Calculus: Medium Hypoplasia: Medium Resorption: None Attrition Scores: - - - 4+- - - 6- - - - - - -- 3 - - 4+ 4+ 4 4 - 4 4+ - 3+ 4+ 2+ -Sk. 1624 Sex: ?, Age: ?Adult Condition: Poor A few fragments of eroded skull, arms and legs. Sk. 1656 Sex: ?Male, Age: Young **Condition:** Poor-Fair Very fragmentary skeleton and skull.

Determination of age: Tooth wear slight-medium. Determination of sex: Bones large, robust. Mastoid medium, large glabella?

Teeth: 87654-21 -- 345-78 876543-11-345678 Calculus: Medium Hypoplasia: Medium Resorption: Not assessable Attrition Scores: 2-2-445-3+4 - - 3 5 4 - 2 - 2 2-343-3-4+-3 3 - 5 3- 3-4 3 2-Pathology: Slight lipping of zygapophyseal joints? Pit for ligament on L. femoral head slightly lipped, pitted and enlarged (17mm diameter). Extra bone: Skull of 1624 in same bag, <u>Sk. 1706</u> Sex: Male, Age: 25-35? Condition: Fair Most of skeleton present, skull very fragmentary and incomplete. Determination of age: Medium tooth wear. Medial clavicle fused. No obvious lipping of joints. Determination of sex: Bones fairly large and robust. Large mastoids. Height: 169.1 cm from L. Ulna, Teeth: C? 87654321 12345678 Calculus: Heavy Hypoplasia: Medium Resorption: Medium Attrition Scores: 2-4 5 5+4 - - -2-3+4+5+3455+5+545+5+542-Pathology: Slight necrosis of one lumbar vertebral body? The edge of the vertebra has expanded to compensate, leaving a slight lump at the front of the body below the lesion. There is a small deposit of bone below the L. femoral neck. Extra bone: Upper L. lateral incisor with large calculus deposit, large hallucial phalanx, shaft of small L. femur, fragment of distal L. humerus, scapula, phalanx, small R. patella, distal end of L. fibula. Various animal ankle and leg bones. Sk. 1707 Sex: ?Female, Age: ?Young Condition: Fair Fragmented remains: legs, R. humerus, L. radius and ulna, feet, a few fragments of skull. Determination of age: Bone shows no signs of degeneration. Determination of sex: Small patella and foot bones. <u>Sk. 1708</u> Sex: ?Female, Age: 18-22 Condition: Fair-Poor Fragmented skeleton and skull with flaky periosteum. Determination of age: Prox. hum., dist. rad. and ulna and dist. fem. unfused. Dist. hum, prox. rad., ulna and fem. fused. Determination of sex: Bones small and gracile, mastoids medium, occipital smooth, glabella small, sciatic notch narrow.

Teeth: 8765/321 1-345678 876543// /2345678 Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: 2 2+3-2 - 3 2+3- 3- - 2+2 2 3-2+2 2 2+3-2 2 3 - - - 3-2 2 2 3-2+2 Non-Metric Traits: Lambdoid wormians. Third femoral trochanter R. side only. Extra bone: Two extra mandibular condyles, extra lower molar, large R. hallucial metatarsal, and a few animal teeth. Sk. 1709 Sex: Female, Age: Young Condition: Fair Most bones present, skull fragmentary. Determination of age: No obvious signs of degeneration. Determination of sex: Bones small and gracile, slight pre-auricular sulcus L.?, small mastoid, smooth occipital. Teeth: **C**? -7-5----7-------Calculus: Medium Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores: - 2- - 5 - - - - - - - - - - - 2- -Extra bone: Frags of large R. ilium (found upside down above elbow), juvenile clavicle (with L. innominate), L. femur of similar size to main individual. L. tibia was disarticulated and may not belong. Sheep tooth. Sk. 1746 Sex: ?Female, Age: MA? **Condition:** Poor Fragmentary skeleton and skull with surface erosion. Determination of age: Medium tooth wear. Slight degenerative processes apparent. Determination of sex: Bones gracile, mastoid medium-large, square chin, mandible appears child-like. Teeth: -7 - - - X / / - - - - - - - - --7X//////-----A Calculus: Heavy Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores:

Pathology: Slight OP of R. radial tuberosity. Ossification of ligamentous attachments on R. patella. Cribra orbitalia of R. orbit. The frontal bone is thickened with enlarged diploe, possibly as a result of anaemia?

Extra bone: Three finger phalanges (packed with feet) which seem too large for this individual.

Sk. 1772 Sex: ?, Age: Adult Condition: V. Poor Very small frags of skull, arms, hands, ribs, shoulders, vertebrae and pelvis. Determination of age: Tooth wear light. Determination of sex: Glabella medium. Teeth: -7---2- 12-4567--765-3-- ---567-Calculus: Medium Hypoplasia: Slight Resorption: Slight Attrition Scores: - 2+ - - - ? - 43 - 2+ - 342+ - 2+ 4 3 - 4 - - - - - - 3 4 2+ -Non-Metric Traits: Parietal foramina, lambdoid wormians. Sk. 1773 Sex: ?, Age: 35-45? Condition: V. Poor A few eroded skull frags, vertebrae, ribs, some long bones, 2 teeth and some animal bone. Determination of age: Tooth wear medium. Determination of sex: Large mastoid process. Teeth: ----67-Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores: Sk. 1778 Child, Age: 5-6 Condition: Poor-Fair Fragments of most major bones. Determination of age: Tooth eruption and long bone length. Teeth: -- Oed -- a a -- deOU--UOed/// O//deOU-Calculus: Medium Hypoplasia: Medium Resorption: None Non-Metric Traits: Double hypoglossal canal L. Extra bone: 2 adult R. maxillary molars (M2 & M3) with slight wear (2-), fragment of ?adult L. scapula, and fragment of adult metatarsal. Sk. 1780 Sex: ?, Age: 25-35? Condition: V. Poor Very fragmentary bone: R. humerus, L. arm, L. shoulder, vertebrae, pelvis, legs, feet, skull frags. Determination of age: Tooth wear medium. Determination of sex: Medium mastoid, robust occipital.

Teeth: -76---// //?//678 Calculus: None Hypoplasia: None Resorption: None Attrition Scores: - - - - - - - - 4+- 3+ -- 3+ 5 - - - - - - - - 5 3+ 3? Pathology: Lipping of odontoid process of axis. Extra bone: Larger ischium. Sk. 1781 Sex: ?Male, Age: Adult Condition: Poor-Fair Fragments of torso, L. arm, L. innominate and L. femur. Determination of sex: Fairly robust? Note: Skull could be 1747/1748/1749 (all one?), post-cranial = 1774? <u>Sk. 1802</u> Child, Age: c.6? Condition: V. Poor Very small fragments of juvenile skeleton and skull. Determination of age: Tooth eruption. Teeth: ---ed-UU -------6----U-6U-Calculus: Slight Hypoplasia: Slight Resorption: None Sk. 1804 Sex: ?, Age: 35-45? Condition: V. Poor Fragments of thick skull, mandible, scapula, clavicle, cervical vertebrae and ribs. Determination of age: Tooth wear medium. Determination of sex: Mandible gracile but skull appears large. Teeth:

876/432///345678

Calculus: Heavy Hypoplasia: None Resorption: Heavy Attrition Scores:

2-4+6 - - - - - - - 5 - - 6- - -4+5 5+ - 3 5 3- - - - 3+3 3 5 4+2-

Non-Metric Traits: Parietal foramen R.

Pathology: The diploe of the skull are thickened and there is some ectocranial pitting, possibly suggesting some form of infection. An infection may have been the cause of the pitting and resorption around the R. mandibular PM2-M2, possibly as a result of the large amount of calculus which affected all the teeth. Both lower M3s are partially impacted, with the crowns growing towards the anterior. The R. is very small and has the appearance of a premolar.

<u>Sk. 1816</u> Sex: Male, Age: <30

Condition: Fair

Most of the skeleton has survived but all bones are fragmented with flaky periosteum.

Determination of age: Tooth wear medium, ischial tuberosities smooth, medial clavicle and S1-2 sacral segments appear unfused.

Determination of sex: Bones large and robust, large mastoids. Height: 169.6 cm from L. fibula. Teeth: 87-54321 12345678 8-6---- 12345678 Calculus: Heavy Hypoplasia: Medium Resorption: None Attrition Scores:

2 2+ - 3+ 3- 4 2+ 3+ 3+ 2+ 4 3- 3+ 4+ 2+ 2

2 - 4 - - - - 3+3 4 2+2+4 3 2 Non Metric Traits: Precondular tuberale R third femore

Non-Metric Traits: Precondylar tubercle, R. third femoral trochanter. Pathology: Slight OP of mid-thoracic vertebrae.

Extra bone: Large R. navicular (bagged with skull), small frag of ?infant ?radius.

Sk. 1830 Sex: Male, Age: MA?

Condition: Fair-Poor

Almost complete skeleton and fragmentary skull.

Determination of age: Tooth wear medium-heavy.

Determination of sex: Bones very large and robust, large glabella, mastoid, occipital crest.

Teeth:

87X5/321 123456/-/76543/1 //3X5X78

Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition Scores:

2+5 - 5+ - 4+6-5+ 5+4+5 4+5 5+- -- 5+6 5+5+4+ - 4 - - 5 - 5+-5+3-

Non-Metric Traits: Inca bone? Pathology: Slight new bone growth on fib

Pathology: Slight new bone growth on fibulae (calcification of ligaments?). Very slight graining of both tibiae, especially laterally. Roughened new bone at insertion of gluteus maximus on L. femur. Schmorl's nodes of most lower thoracic and one lumbar vertebrae. Slight aseptic necrosis in superior border of L2 vertebra? OP of C5-6 vertebrae.

Extra bone: Frag of adult tibia, 5th metatarsal, frags of scapula and pelvis.

Sk. 1836 Sex: ?Female, Age: 35-45

Condition: Poor-Fair

Very fragmentary, both arms missing but most other bones represented. Determination of age: Tooth wear medium, some degeneration of bones. Determination of sex: Bones small, but not particularly gracile. Teeth:

--X543/X XX345678 BB Calculus: Medium Hypopiasia: Not assessable Resorption: Heavy Attrition Scores:

- - - 5+5+5+-- - - - - 5+5+5 4+

Non-Metric Traits: Parietal foramina.

Pathology: OP of some vertebrae. Slight lipping of both linea asperae. There is new bone formation around the distal borders of both ischial tuberosities making the surfaces appear lumpy. This is probably due to a condition known as ischial bursitis, an inflammatory process caused by continual rubbing of this area of the pelvis, possibly occupational in nature. The bones of the skull appear thickened with enlarged diploe, but the reason for this is unknown. Extra bone: Juvenile L. ischium (bagged with scapula) and ?juvenile L. talus (with feet) - possibly 1843?

Sk. 1838 Sex: ?Female, Age: c.25-30

Condition: Good

Almost complete skeleton.

Determination of age: Tooth wear medium, bones appear recently fused, medial clavicle fused, S1-2 unfused.

Determination of sex: Sciatic notch fairly wide, mandible gracile, bones small and gracile, skull gracile.

Height: 155.4 cm from Femora.

Teeth:

/76543// //3//6//

///54321 1//45678

Calculus: Heavy Hypoplasia: None Resorption: Medium Attrition Scores:

- 4 5 3 4 4 - - - - 4 - - 6 - - -

- - 3-2+4+5 5+ 5+- - 2+3-5+4 2

Non-Metric Traits: Double hypoglossal canal R., Inca bone, parietal foramina, septal apertures, third trochanters.

Pathology: R. patella slightly lipped around border of medial facet. Slight OP of T10-12 and L2-5 vertebrae. Schmorl's nodes on T6-L5 vertebrae. Slight collapse of R. side of upper border of T9 and lower border of T7 with OP, possibly with slight scoliosis.

Extra bone: Large L. navicular, 2 frags of atlas, ribs and small frags of long bones, sub-adult R. femur and L. humerus frags, shaft of juvenile humerus (c.13yrs), juvenile L. mandible (c.5yrs), frag humerus of infant, frags of juvenile skull (cribra R. orbit).

Sk. 1840 Sex: ?Male, Age: 16-18
Condition: Fair-Poor
Most of the skeleton and incomplete skull, fragmentary.
Determination of age: All epiphyses unfused, acetabulum not united.
Determination of sex: Sciatic notch appears narrow.
Teeth:
7654321 123456787654321 12345678
Calculus: Slight Hypoplasia: None Resorption: None

Attrition Scores:

- 2-3 2+2+3-3-3+ 3+3-3-2+2+3 2--2-2 3 2+2+3+3 3 3 3 3+2+2+3 2 2-Non-Metric Traits: Double mental foramen L. Pathology: Cribra orbitalia of L. orbit (R. missing). Extra bone: Misc. bag 1840/1842: 4 patellae, metacarpals and phalanges of 1840, fragment of adult radius head, lateral half of R. clavicle, frag of ulna, distal half of sub-adult R. ulna (1842?), various animal bones. Sk. 1842 Sex: ?Male, Age: 16-18 Condition: Fair Skeleton without head and R. arm. Determination of age: Distal L. humerus partly fused. Acetabulum not yet united. Other bones unfused. Determination of sex: Sub-pubic angle acute, iliac crest deep-S shape. Teeth: Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Non-Metric Traits: Small third trochanters both femora. Pathology: Small exostosis on the linea aspera of L. femur approximately one third down the shaft, c.11mm long and 1mm deep. Note: Skull = 1839? or 1926? Sk. 1843 Child, Age: c.9-10 Condition: Fair-Poor L. leg and R. lower leg only. Determination of age: Long bone lengths. Note: Skull possibly 1837? or 1846/1847, postcranial = 1861? Sk. 1844 Child, Age: 7-8 Condition: Poor-Fair Most of skeleton present in fragments. Determination of age: Long bone lengths and tooth eruption. Teeth: -UOed// - U//d/OU--- OedcOO O-UdeOU-Calculus: None Hypoplasia: Slight Resorption: None Non-Metric Traits: Third trochanter both femora. Extra bone: Adult mandibular condyle (1845?) <u>Sk. 1845</u> Child, Age: c.15? Condition: Poor Cervical and thoracic vertebrae, frags of ribs, R. scapula, L. innominate, L. humerus and skull. Determination of age: Size of M3 root. Teeth: _____

----/1 123//67U

Calculus: None Hypoplasia: None Resorption: None Attrition Scores:

- - - - - - 3- 3-3-2+- - 3-2--

Pathology: Crowding of incisors, left lateral mandibular incisor pushed back behind mesial and canine.

Sk. 1849 Sex: Female, Age: MA? **Condition:** Fair Fairly complete skeleton and skull. Determination of age: Medium tooth wear, Determination of sex: Sciatic notch appears wide, bones gracile, small mastoids, medium glabella, gracile mandible. Height: 158.1 cm from R. Ulna. Teeth: -7654321 12345678 U765432/ ///4567U Calculus: Slight Hypoplasia: Slight Resorption: Slight Attrition Scores: - 3-5 4+3 2+3 4+ 5 4 4 4 5 5+3+2-- 3 4+ 4 4 2- 3+ - - - - 3+ 3+ 4+ 3 -Non-Metric Traits: R. septal aperture, L. double hypoglossal canal, L. postcondvlar canal. Pathology: Both tibiae show periosteal graining on most of the shaft, particularly the medial surface of the L. and the lateral surface of the R., with some remodelling of the anterior border in the distal third. The fibulae are also affected to a lesser degree. Extra bone: L. scapula fragment, distal half of small R. humerus, 3 frags of a fibula, distal frag of large ulna, axis, frag of acetabulum, metatarsal, finger phalanx, some animal frags. Mostly 1860? <u>Sk. 1850</u> Sex: Male, Age: c.30 Condition: Fair Most of skeleton, but L. radius and innominate missing. Determination of age: Medium tooth wear, medial clavicle just fusing. Determination of sex: Bones robust and fairly large, mastoids and glabella large. Height: 166.9 cm from L. Humerus. Teeth: ----43// 12345678 87654321 1234567/ Calculus: Medium Hypoplasia: Slight Resorption: None Attrition Scores: - - - - 2+3+ - -3-2 3 2+3 3-2+2-2+3+4+3-2+3 2+3 3 2+3 2+3-4+3+ -Non-Metric Traits: Lambdoid wormians. Pathology: Slight OP of T5-8 vertebrae, Schmorl's nodes of lumbar vertebrae. Possible osteochondritic lesions in the medial malleolus of both tibiae (developmental defects?). The gluteal tuberosity of the R. femur is enlarged, possibly due to tearing of the muscle attachment, leading to an ossifying

haematoma (21mm long, 10mm wide, c.4mm high). The L. Is much smaller but still appears enlarged with a slightly lumpy profile.

Extra bone: R. third metacarpal and navicular. Some animal fragments.

Sk. 1857 Child, Age: 7-8

Condition: Poor

Small frags of a few vertebrae, ribs, L. pubis and ischium, proximal half L. radius, skull.

Determination of age: Tooth eruption, long bone length.

Teeth:

-U6eU-b - 1 -OUe -U-

RR

Calculus: None Hypoplasia: Slight Resorption: None Pathology: Possible cribra orbitalia of L. orbit. Note: Skull – 1858?

<u>Sk. 1860</u> Sex: ?Female, Age: Adult Condition: Poor C6-T4 and some lumbar vertebrae, frag R. ilium, ribs, scapula, clavicle, proximal R. radius and ulna Determination of sex: Small bones. Note: Skull = 1861?, post-cranial = 1928?

Sk. 1882 Sex: Female, Age: MA-Old

Condition: Fair

Most of skeleton and skull.

Determination of age: Teeth well worn.

Determination of sex: Wide sciatic notch, pre-auricular sulcus on L., skull and bones gracile.

Height: 155.4 cm from L. Femur.

Teeth:

RAR A AR

--X543// ?//X5X7/

-/65//XX -----

Calculus: None Hypoplasia: None Resorption: Heavy Attrition Scores:

Non-Metric Traits: Third trochanters both femora. Post-condylar canal L., double hypoglossal canal both sides.

Pathology: Slight OP of T5 and around L. patella articular surface (particularly on lateral extremity). The R. femur is extremely flattened A-P, linea aspera is almost non-existent, with very thin cortex. The R. tibia and fibula also appear narrower A-P than those on the L. Both tibiae are grained on the medial surface. The R. femoral condyle appears slightly flattened, but only the lateral half remains. The R. tibial condyles show eburnation. Suggestive of stress on R. knee, shorter leg? Foot not smaller.

Extra bone: ?Female mandible (not 1883): 87654/////345X78, L. scapula frag (1917?), R. hallucial metatarsal, ?foetal femoral shaft (bagged with fingers). Sk. 1898 Sex: Female, Age: 18-25 Condition: Fair Most of the skeleton and fragmentary skull. Determination of age: Slight tooth wear, medial clavicle unfused, iliac rim recently fused. Determination of sex: Bones small and gracile, sub-pubic angle wide?, sciatic notch wide. Height: 164.3 cm from R. Fem+Tib. Teeth: 87654321 12345678 876543// /2345678 Calculus: Medium Hypoplasia: Slight Resorption: None Attrition Scores: 2-2 3 4 4 4 3 4+ 4+ 3 4 4 4 4 3-2-2-3-3+443 - -- 3-44443-2-Non-Metric Traits: L. parietal foramen, L. post-condylar canal, distal acromial epiphysis unfused. Pathology: Schmorl's nodes of T9-12 and L2-4 vertebrae. Slight OP of T4-5. There is a deposit of new bone approximately midshaft of the R. fibula, anterior surface (35x8mm, c.2mm high). It is of lumpy appearance and appears to be above the periosteum, at the distal attachment of the extensor hallucis longus. There is slight graining of the tibia on the medial surface of the shaft. Extra bone: Fragment of lumbar vertebral zygapophyseal facet with OA (pitting and eburnation). Sex: ?Male, Age: MA-Old Sk. 1900 Condition: Poor-Fair Most bones present but fragmentary. Determination of age: Medium tooth wear, some signs of degeneration. Determination of sex: Bones appear quite large, glabella medium-large, mastoids medium. Teeth: AAA ---5/3/1 1234/---876543/1 1-3456// Calculus: Medium Hypoplasia: Slight Resorption: Heavy Attrition Scores: - - - 6 - 6-- 5+ 5+5+6-7 - - -3 3+ 5+ 5+ 5 4 - 5+ 5+ 4+ 4+ 6- 5+ - - -Non-Metric Traits: Metopism, L. third trochanter. Pathology: The L. 3rd and 4th metatarsals have an abnormal facet between them (on both bones), as if some kind of trauma had pushed them together, or they have been forced together continuously. They would have lain in the

normal position, and there is no sign of fracture on what remains of 3 and 4 or the other foot bones which have survived.

Extra bone: Juvenile vertebral body.

Sk. 1906 Child, Age: 8-9

Condition: Poor

V. frag bones: scaps, R. clav, R. hum, R. fem, R. ilium, lower legs, ribs, vertebrae.

Determination of age: Length of humerus.

<u>Sk. 1907</u> Sex: Male, Age: >30

Condition: Poor

L. shoulder and humerus, hips and legs, fragmentary with surface erosion. Determination of age: Medial clavicle fused, some ligamentous calcification. Determination of sex: Bones large and robust.

Pathology: The L. clavicle has a well-healed fracture midshaft with slight displacement of the lateral half distally and cortical thickening of distal surface. Slight OP of acetabular rims. Slight new bone growth on anterior shaft of R. fibula, and L. affected to a greater extent with graining and thickening over the whole shaft. The tibiae were in poor condition but may also have been affected. Probably non-specific periostitis.

Note: Skull = 1859?

<u>Sk. 1917</u> Sex: Male, Age: 35-45?

Condition: Fair

A

Most of the skeleton and skull, R. femur and fibula missing.

Determination of age: Medium-heavy tooth wear, medial clavicle fused. Determination of sex: Sciatic notch narrow, sub-pubic angle acute, bones fairly large, skull robust.

Height: 176.1 cm from L. Humerus. Teeth:

A /76-4U/1 1234567/ 87654/2- 12345678

A C

Calculus: Slight Hypoplasia: None Resorption: Medium Attrition Scores:

- 4+5 - 3+- - 4 4 3+4 5 5+6 4+-

4+3 4+3+5+6 5+2+ 3+6-75+4-3-

Non-Metric Traits: Septal apertures, 3rd trochanters, lambdoid wormians, L. parietal foramen, L. double hypoglossal canal, R. & L. post-condylar canal. Pathology: Crush fracture of T4-5(?) has caused kyphosis. The bodies are completely fused and are the size of one normal body, the arches remain unfused. The anterior borders of T3 and T6 are slightly reformed to articulate with the crushed vertebrae. No other vertebral or rib pathology was seen. Both tibiae show graining and thickening characteristic of chronic periostitis/osteitis. These lesions may be suggestive of tuberculosis, but in

the absence of any spinal infection it is likely that the crush fracture was caused by a traumatic incident. Slight cribra both orbits.

Extra bone: 2 rib frags and hallucial metatarsal of juvenile, adult petrous temporal, frags of juvenile calcaneus, clavicle and shaft of tibia (some of 1918?).

Sk. 1918 Child, Age: 12-24m Condition: Fair Fragmentary skull, most long bones (except R. forearm), and R. ilium. Determination of age: Tooth eruption, long bone length. Teeth: ---- ///deU----Uedc// -----Calculus: None Hypoplasia: None Resorption: None Extra bone: Adult R. navicular (bagged with skull). Note: Skull = 1881? Sk. 1919 Sex: Male, Age: 35-45+ Condition: Poor Most of skeleton, except L. forearm and lower leg (some frags in 1863?). Determination of age: Medium tooth wear, some degeneration. Determination of sex: All bones large with pronounced muscle markings, large glabella. Teeth: ---/8 87X//32X /////X78 A Calculus: Medium Hypoplasia: Medium Resorption: Heavy Attrition Scores: - - - 5 - 6 - - - - - - - 5 45 - - - 43 - - - - - - 65+

Non-Metric Traits: Acetabular crease both sides, lambdoid wormians, precondylar tubercle.

Pathology: New bone formation on L. femoral head, extending from just proximal to fove a down to just distal to it, possibly calcified ligamentous attachment. L. humerus has a lesion on the lateral border of the distal end (15mm long, 2mm deep), which could be post-mortem since the bone is badly eroded. Very slight OP of upper thoracic vertebrae. Extra bone: Juvenile L. ilium, frag of long bone end.

<u>Sk. 1920</u> Sex: Male, Age: MA?

Condition: Poor

L. arm, lower vertebrae, pelvis and legs.

Determination of age: No signs of old age, but bones do not appear young. Determination of sex: Bones large and robust.

Height: 174.2 cm from L. Humerus.

Note: Skull = 1874?, post-cranial = 1863? or 1923?

Sk. 3060 Sex: Female, Age: MA

Condition: Poor Most bones present but fragmentary. Determination of age: Medium tooth wear, some degeneration. Determination of sex: Bones gracile, sub-pubic angle probably wide.

Teeth:

CC 87654321 12345678 UX65432 - 12345X7U CA

Calculus: Medium Hypoplasia: None Resorption: Heavy Attrition Scores:

- - 5 4+ 4+ 5 6- - 6-6-6-5+5+ - 4+ -

Non-Metric Traits: Metopism.

Pathology: Slight OP of distal border of both acetabuli. Lipping of R. patella medio-distal border.

Extra bone: Frag proximal epiphysis of pollicial metatarsal, sub-adult lumbar vertebra, large finger phalanx, a few animal frags.

Sk. 3062 Sex: ?, Age: Sub-adult

Condition: Poor

Very fragmentary skeleton: mandible, L. arm, R. radius, L. pelvis and femur, hands.

Determination of age: No epiphyses fused.

Teeth:

- - - 5?- - - - 1 - - - - - 7? -

-----6?---

Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable

Attrition Scores:

Note: Skull = 1555?, post-cranial = 1485?

<u>Sk. 3070</u> Sex: ?Male, Age: 35-45 Condition: Poor Very fragmentary skeleton with no R. leg (in 1803 or 3067?). Determination of age: Medium tooth wear. Determination of sex: Bones appear gracile, but large mastoids and glabella. Teeth: $8 / 6 \times 4321 - 23456 \times 8$ 8 7 6 5 4 321 / 234567 /Calculus: Slight Hypoplasia: Medium Resorption: Slight Attrition Scores: 4+-6-5+555+-555+6-445+5+444+55+-4444+5+5-Non-Metric Traits: Double mental foramen R. Extra bone: R. ulna of Infant, shaft of juvenile femur, frag of large L. humeral distal epicondyle (bagged with talus, 3073?).

Sex: Male, Age: MA Sk. 3072 Condition: Fair Most of skeleton, but L. humerus and lower leg missing (in 4005?). Determination of age: Tooth wear medium, some degeneration. Determination of sex: Large, robust bones, large inion. Height: 175.1 cm from Ulnae. Teeth: 8XX5X3XX XX/4-XXX Calculus: None Hypoplasia: Slight Resorption: Heavy Attrition Scores: 4+--3-4+----3+----Non-Metric Traits: Lambdoid wormians. Pathology: Periodontal disease? OP of C6-7, Lipping proximal L, ulna and distally at articulation with radius. Anterior L. greater trochanter has new fibre bone growth. Calcified ligaments around both femoral head foveae. Extra bone: Lesser multangular. Sk. 3073 Sex: ?, Age: 18-20 Condition: Fair Most bones in fragmentary condition and incomplete skull. Determination of age: Slight tooth wear. Teeth: -7654321 1234567 -U7654321 1234567U Calculus: None Hypoplasia: None Resorption: None Attrition Scores: - 2- 4 2+ 3- 3-2 3-3-2+3-3-2+4 2--- 2+ 3+ 2 2+ 3- 2+ 3- 3- 2+ 3- 2+ 2 3+ 2+ -Non-Metric Traits: Metopism. Extra bone: Adult upper mesial incisor, small L. talus. Sk. 3074 Sex: Female, Age: 35-45? Condition: Fair Most of skeleton, but R. forearm, innominate and femur missing. Determination of age: Medium tooth wear, some degeneration. Determination of sex: Sciatic notch and sub-pubic angle wide, pre-auricular sulcus L., skull gracile, bones fairly large. Height: 167.5 cm from L. Femur. Teeth: /76543/- ----67/ 8765432- 12345678 Calculus: None Hypoplasia: None Resorption: None Attrition Scores: - 4+6-544+--- - - - - 6-5 -3-4+53-34+5-5+54+4354+3+

Non-Metric Traits: Parietal foramina, lambdoid wormians. Pathology: OP of C3-4 and T5-7 (v. slight). Slight Schmorl's nodes of L1-3. Slight lipping around fovea at head of L. femur with calcified ligaments below. Extra bone: Smaller R. talus, sub-adult?

Sk. 3081 Sex: Female, Age: MA Condition: Fair Most bones present, fragmentary. Determination of age: Medium tooth wear, some degeneration. Determination of sex: Bones small and gracile, sciatic notch wide, preauricular sulcus, skull fairly gracile. Height: 161.6 cm from R. Radius. Teeth: 8765/321 1/3/5678 8765//// ///45678 Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores: 3 5 5+ 5 - 5 5 5+ 5+ - 5 - 5 5+ 5 3 Non-Metric Traits: Third trochanters, parietal foramina. Pathology: Graining of L. tibia medial shaft and L. fibula. Ossification of ligaments proximal R. ulna. Large OP's distal L4 and proximal L5 borders of bodies R. side. The L5 is slightly "compressed" at this side, giving it a wedged appearance (20mm R. side, 25mm L. side). The L3 is slightly wedged the other way (27mm R., 24mm L.), which may compensate to some degree. Extra bone: Juvenile unerupted mandibular M2, adult R. 2nd cuneiform. Sk. 3083/3088 Child, Age: c.13 **Condition:** Fair Skull, L. humerus, and shoulders, plus R. humerus and femur from 3088. Determination of age: Tooth eruption, long bone lengths. Teeth: -/6//321 --//567U U7654321 1234567 -Calculus: None Hypoplasia: None Resorption: None Attrition Scores: - - 2+---- - - - - - 2+1 -- 1 2+---- - - - - - 2+1 -Note: Missing bones in 3082? Sk. 3086 Sex: Female, Age: 25-35? **Condition: Fair-Poor** Mandible, shoulders, L. arm, pelvis and legs, all fragmented. Determination of age: Medium tooth wear, some degeneration. Determination of sex: Bones gracile, sciatic notch wide.

Teeth:

 --65-3XX X23/567/

Calculus: Medium Hypoplasia: None Resorption: Medium Attrition Scores:

- - 2-4 - 2+ - - - 4+4 - 454 -

Pathology: OP and ?OA of C4-7 bodies (OA may be post-mortem destruction). OP of radial tuberosity. Thin cortices of most bones suggest osteoporosis. Both tibiae are grained medially with some new bone growth in the proximal third. The R. fibula is wider than the L. and there are signs of periostitis with new bone growth. Unfortunately the bone is too fragmentary to be certain of the processes taking place. Fibre bone on the R. side of the mandible also suggests some infection, but is broken at this point. Extra bone: Misc frags including R. upper mesial incisor and lower incisor,, R. 5th metacarpal.

Note: Skull = 3076?, post-cranial = 1779?/1803?

<u>Sk. 3090</u> Sex: Male, Age: Young Condition: Fair-Poor Fragmentary skeleton and skull.

Determination of age: Slight tooth wear.

Determination of sex: Bones large and robust, sciatic notch fairly narrow.

Height: 171.5 cm from L. Fibula.

Teeth:

-7654321 12345678

-7654321 1234567U

Calculus: Heavy Hypoplasia: Medium Resorption: Slight Attrition Scores:

- 2 2 2 2 3 2+4 4 2+3-3 3-4+2 1

- 2 2 2 2 3 2+3 3-2+3 3-3-4 2+-

Non-Metric Traits: Third trochanter R. side only.

Pathology: Schmorl's nodes of T12-L1, L3-5 vertebrae. ?Developmental defect of radial fossa of L. humerus - no compact bone covering the floor of this fossa, cancellous bone is visible, smooth edges suggest that the lesion is not post-mortem. Extremely heavy calculus build-up on all teeth of R. side from canines backwards, implying that these teeth did not occlude with those above.

Sk. 3094 Child, Age: 18-24m

Condition: Fair-Poor

Skull, R. arm and pelvis, fragmentary.

Determination of age: Tooth eruption, radius length.

Teeth:

--U-d//a abodoU--

--Uodcba abcdoU--

Calculus: None Hypoplasia: None Resorption: None

Non-Metric Traits: R. double hypoglossal canal.

Pathology: Two frags of skull show evidence of anaemia. The outer table is roughened, and microscopic examination of the cross section reveals a "hair-on-end" appearance. The porous nature of the bone suggests fast growth.

Determination of sex: Bones large and robust with prominent muscle markings, sciatic notch narrow, robust skull. Height: 174.2 cm from R. Femur. Teeth: 87654321 12345678 876543 - - - 34567U Calculus: Slight Hypoplasia: Medium Resorption: Slight Attrition Scores: 2 4 5 3+3-4 2+4 4 3-4 3-3+6-3+2 235334--- - 4 3 3 5+4 -Non-Metric Traits: R. acetabular crease, torus palatinus. Pathology: The L3 vertebra has a small exostosis just below the proximal border on the L. side of the body - possibly a necrotic lesion above, but eroded away. Extra bone: Juvenile hallucial metatarsal. Sk. 3099 Sex: Male, Age: Sub-adult Condition: Fair A few fragments of arms, pelvis and femora. Determination of sex: Narrow sciatic notch. Extra bone: R. patella of old individual, frags of adult long bones, juvenile rib. Note: Skull = 3068 or 3079?, other bones in 3063? Sk. 3100 Sex: Male, Age: MA-Old Condition: Fair Most of skeleton, but skull missing (3079?). Determination of age: Medium tooth wear, degeneration of some bones. Determination of sex: ?Narrow sciatic notch and sub-pubic angle, bones fairly large and robust, strong muscle markings. Height: 168.2 cm from L. Radius. Teeth: 87654321 12345678 Calculus: Medium Hypoplasia: None Resorption: Slight Attrition Scores: 3 4 4+ 3 2+ 3+ 3+ 4 4 3+3+2+3 4+4 3-Pathology: Calcified ligaments at heads of femora, L. patella, R. clavicle (fossa for costo-clavicular ligament). OP radial tuberosities, SIJ, glenoid border R. scapula, T4-9, T11-12 and L3-5 vertebrae. Slight enlargement of heads of both first ribs and corresponding on T1 articular facets with OP and possibly OA? Periostitis of proximal half L. fibula, slight graining and new bone. Slight OP 4th and 5th metatarsal heads both sides, both seem more curved than normal. Sk. 3101 Sex: ?Female, Age: MA? Condition: Fair Most of skeleton, lacks R. tibia and fibula. Determination of age: Tooth wear slight-medium, some degeneration?

The enamel on all three deciduous canines has not formed properly and has left large patches of dentine exposed.

<u>Sk. 3095</u> Sex: Female, Age: Y-MA? Condition: Fair Most of skeleton and skull fragments. Determination of age: Medium tooth wear. Determination of sex: Sciatic notch and sub-pubic angle wide, L. pre-auricular sulcus?, bones and skull gracile. Height: 168.8 cm from R. Ulna. Teeth:

A

Calculus: Heavy Hypoplasia: Slight Resorption: Medium Attrition Scores:

2-4 4+3-3 5+3 3 2+2 5 6-5+-4 2

- 2-4+ - - - 3-4+ - - 4 4+5+- 4 3-

Non-Metric Traits: Metopism, L. post-condylar canal.

Pathology: OA R. shoulder joint with enlargement of glenoid fossa, OP and pitting. Slight OP some T vertebrae, and OA T4-6? Deformity distal end L. radius, articulation with ulna forced proximally - trauma? R. femur abnormally bowed M-L, with slight lipping of condylar borders and corresponding on tibia with eburnation. L. femur thin M-L with no head and new articular facet, corresponding on ilium. Deformity R. side of mandible, shortened, L. condyle and glenoid very deformed. Further details, see main text (Trauma).

Sk. 3096 Sex: ?, Age: 18-25 Condition: Fair Most of skeleton and skull. Determination of age: Slight tooth wear, arm bones unfused distally and proximally, acetabulum not united. Determination of sex: Small mastoid. Teeth: - 7654321 1-34567 -U7654321 1234567U Calculus: Medium Hypoplasia: Medium Resorption: None Attrition Scores: - 2 3 2 2 3 2 2 + 2+ - 2 2 2 3 2 -- 2 3 2-2-2-2-2+ 2+2-2 2 2 3 2 -Non-Metric Traits: R. double hypoglossal canal. Extra bone: 2 ?adult metacarpals.

<u>Sk. 3098</u> Sex: Male, Age: 25-35? Condition: Fair Most of skeleton and fragmented skull. Determination of age: Tooth wear medium. Determination of sex: Bones fairly gracile, pre-auricular sulcus, sciatic notch probably wide, medium glabella, mastoids.

Height: 175.2 cm from R. Ulna.

Teeth:

-7-5----6--

Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable

Attrition Scores:

- 3+ - 3 - - - - - - - - 3+ - -

Non-Metric Traits: Septal apertures both humeri, third trochanters both femora,

Pathology: Small lesion at anterior border of L. scapula glenoid - pit surrounded by new bone in a ridge with larger flat deposit at proximal edge (12x4mm). Possibly osteochondritis dissecans? Proximal anterior border of L4 curves downwards with OP and reactive bone growth around the anterior of the body and on the border. Fracture L. radius c.three-quarters down shaft with displacement of distal quarter medially. Gross OA distal articular facet with deformity of joint and flattening of shaft above.

Extra bone: Adult L. femur (labelled R. tibia), possibly 3106?

Sk. 3103 Sex: Female, Age: Adult

Condition: Good

Most of post-cranial skeleton, except L. shoulder and humerus. No skull. Determination of sex: Bones small and gracile, very wide sciatic notch, L. preauricular sulcus.

Height: 158.0 cm from Tibiae.

Non-Metric Traits: Third trochanter L.

Pathology: Slight OP superior border R. side of S1 body. Note: Skull = 3104/3109/3108?, other bone = 3097/3102?

<u>Sk. 3105</u> Sex: ?, Age: Adult

Condition: Fair

Lower legs only.

Determination of sex: Bones medium-large.

Pathology: Shafts L. tibia and L. fibula grained. The articular surface of the medial condyle of the L. tibia is remodelled with pitting and rounded new bone, OP of borders. Hole in dorsal half - possibly sinus/cloaca, or developmental defect? Similar new bone growth affects the ?R. patella articular facet with OP of borders.

Note: These bones could belong to 3106 and the tibia there to 3101.

Sk. 3106 Sex: ?Male, Age: Y-MA?

Condition: Fair

Most of the post-cranial skeleton, but L. innominate and leg are missing. Determination of age: No obvious signs of degeneration.

Determination of sex: Sciatic notch appears narrow, sub-pubic angle acute. Height: 170.9 cm from Radii. Pathology: ?Schmort's node or developmental detect causing sinuses in one broken mid thoracic vertebra. Possible osteochondritic pit (6x3mm) in medial condyle of R. femur, with lipped edge laterally. Another similar, larger (8x5mm), superiorly and on lateral border, pitted floor.

Note: The tibla here may belong to 3101, and those in 3105 may belong here. Skull = 3108 (or 3104/3109)?, L. innominate = 3097/3102?

Sk. 3110 Sex: Male, Age: 35-45

Condition: Fair

Most of skeleton and incomplete skull.

Determination of age: Tooth wear medium.

Determination of sex: Sciatic notch narrow, bones robust, large glabella and occipital crest, small mastoid.

Teeth:

-76543XX 12X45--8 8765/3/1 1234567-

Calculus: Heavy Hypoplasia: Medium Resorption: Slight Attrition Scores:

-565+5+5-5+6-4+2+-2

2+45+5 - 5 - 2+ ? 342+243+-

Non-Metric Traits: Double condylar facet R. atlas, L. third trochanter, L. double mental foramen.

Pathology: Uneven wear of lower L. mesial incisor (L. half of occlusal surface worn, R. not) probably due to loss of upper R. incisors. Slight lipping odontoid process of axis. Distal end L. fibula slightly grained and OP. R. maxilla in incisor area is very resorbed/atrophied. Border of nasal aperture is still sharp. There is possible infection of the palate with pitting. Unfortunately broken and other half missing. Suggestive of facies leprosa, but remaining MTs and phalanges of feet unaffected.

Extra bone: Distal half of L. ulna (labelled "beneath 3101" and "3105", but changed to "3110"). Extra R. maxillary canine.

Sk. 3113 Sex: Male, Age: Young

Condition: Fair-Good

Most of skeleton and skull.

Determination of age: Tooth wear slight.

Determination of sex: Bones large and robust, sciatic notch appears narrow, large mastoid, rounded orbits.

Height: 163.7 cm from R. Fem+Tib.

Teeth:

-7-54321 123/5678

87654321 1/345678

Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores:

- 2 - 2+2+2 2 2+ 2+2 2 - 2+3 2+2-

2-232222+2+-22232+2-

Non-Metric Traits: Third trochanters both femora, parietal foramina both sides. Pathology: Cribra orbitalia both orbits. Slight Schmorl's nodes lower T vertebrae. Slight rough new bone growth causing raised prominence on linea aspera of L. femur at point of insertion of vastus medialis just above foramen. There is a lesion at thecentre of the endocranial floor of the R. greater wing of the sphenoid, with rounded borders, pitted floor, some new bone growth, 13x8mm, possibly a developmental defect? Extra bone: Finger phalanx (bagged with R. foot), and animal phalanx.

Sk. 3114 Child, Age: c.7 **Condition:** Poor Very fragmentary skeleton lacking R. arm. Determination of age: Tooth eruption, long bone length. Teeth: -U6edU-U U/cde6---/6edcOO OOU--6--Calculus: None Hypoplasia: Slight Resorption: None Non-Metric Traits: Parietal foramina. Extra bone: Adult vertebral fragment. Sk. 3116 Sex: Female, Age: 18-20 Condition: Fair-Good Most of skeleton and skull. Determination of age: Slight tooth wear. Determination of sex: Sciatic notch wide, skull gracile. Height: 157.8 cm from L. Femur. Teeth: -76/4/// --///67-U765432/12345/7U Calculus: Medium Hypoplasia: None Resorption: None Attrition Scores: -232232+- 42+322-2-Non-Metric Traits: L. post-condylar canal. Pathology: Distal halves of both femora are widened and the normal curvature is lost. A small lesion (8x5mm) just above the condyles of the R. femur dorsal surface has smooth edges and a roughened floor. Both tibiae (the L, is disarticulated and numbered 3126) show graining and enlargement of shafts with fibre bone laterally and thickened cortices. Fibulae also affected. Metatarsals may also be slightly enlarged but are in poor condition. Small lytic lesion in L. orbit (6mm diam) close to lateral edge, pitted, reactive. Note: L. tibia and fibula for this individual were disarticulated and are packed as 3126. Sk. 3131 Child, Age: c.12m **Condition:** Poor

Condition: Poor Fragments of skull and L. limb bones only. Determination of age: Tooth eruption. Teeth:

Calculus: None Hypoplasia: None Resorption: None

Pathology: Fibrous bone growth in layers above inner table of some fragments of skull. Seems especially thick on suture lines. Cribra orbitalia of R. orbit.

Extra bone: Juvenile L. femur, slightly larger. Frags of larger ulna and tibia.

Sk. 3132 Child, Age: 9-12m Condition: Fair Skull, R. shoulder and arm, pelvis and legs. Determination of age: Tooth eruption, long bone length. Teeth: ----//000---_ _ _ _ _ _ _ _ _ Calculus: None Hypoplasia: None Resorption: None Sk. 3134 Child, Age: 18-24m Condition: Fair Skull, R. arm, both legs. Determination of age: Tooth eruption, long bone length. Teeth: --Uod/ba abcdoU--Calculus: None Hypoplasia: None Resorption: None Sk. 3135 Sex: Female, Age: <30? Condition: Fair Most of skeleton and skull. Determination of age: Tooth wear light, medial clavicle just fusing. Determination of sex: Bones gracile, wide sciatic notch, mandible gracile. Teeth: CA 87654321 12345678 876e4321 1234U678 С Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores: 2-2 2+2+2+2 2-2+ 2+1 2 2+2+7 2 2-2+222 - 322-2-2342222+ Non-Metric Traits: L. double hypoglossal canal, lambdoid wormians, third trochanters, small Carabelli's cusp maxillary R. M2. Pathology: Lesion in the inferior surfaces of the T12-L3 bodies - cross section of T12 shows it to be continuous with the periosteum. It occurs on the L. half in T12-L1 but is more central in L2-3, on which it is rougher with OP of edges. On T12-L1 it has a smooth floor. There is an infection of the L. maxillary sinus due to breakthrough of the abscess in the M1. Extra bone: ?Sub-adult thoracic vertebra.

<u>Sk. 3136</u> Child, Age: c.13 Condition: Fair Most of skeleton and skull. Determination of age: Tooth eruption, long bone length. Teeth:

- U 6 e O / 2 / 1 2 O / 5 6 U -Calculus: Slight Hypoplasia: Slight Resorption: None Non-Metric Traits: Parietal foramina, L. post-condylar canal, lambdoid wormians.

<u>Sk. 3137</u> Child, Age: 3-4 Condition: Fair-Good Most of skeleton and skull, but lacking pelvis and L. femur. Determination of age: Tooth eruption, long bone length. Teeth:

----c-a //cdeU/-

--/edcb/ abcdeU--

Calculus: None Hypoplasia: Slight Resorption: None Pathology: One ?finger phalanx appears to have a lump in the bone at approximately midshaft on the dorsal surface, caused by thickening of the cortex at this point. The periosteum is smooth. Cribra orbitalia of both orbits. Extra bone: Fragment of mandible (coronoid process) of adult and one lower L. lateral incisor with heavy calculus.

Sk. 3140 Sex: ?Male, Age: Old

Condition: Fair

Fragments of radii, pelvis and femora only.

Determination of age: Signs of degeneration.

Determination of sex: Bones not particularly robust, L. sciatic notch appears narrow.

Height: 160.8 cm from Femora.

Pathology: All major articulations show lipping, especially SIJs, acetabular rims, ischial tuberosities and distal radii, but not femoral distal condyles. R. femoral head has new bone dorsal to fovea. R. 3rd metacarpal has cyst hole at joint with 2nd - also opens out onto joint with capitate - edge is slightly lipped and interior seems to show remodelling. Small button osteoma medial edge of R. femur two-thirds down shaft (15x5mm). Gluteal tuberosities rough on both femora.

Extra bone: Hallucial metatarsal of child. Note: Skull = 3124?, post-cranial = 3127?, 3143?, 4035?

Sk. 3141 Sex: Female, Age: MA-Old

Condition: Fair

Most of skeleton and skull.

Determination of age: Tooth wear medium, some degeneration.

Determination of sex: Small, gracile bones, wide sciatic notch, pre-auricular sulci, wide sub-pubic angle, gracile skull.

Height: 157.8 cm from L. Femur.

Teeth:

Α

U7X543// //3///7U U76543// //345X78 Calculus: Medium Hypoplasia: None Resorption: Heavy Attrition Scores: - 4 - 7 6 5+ - - - 6- - - - 4+ -- 5+ 6 4+ 4+ 4+ - - - - - 5 4+ 4+ - 5+ 3+ Non-Metric Traits: Lambdoid wormians (including ossicle at lambda), precondylar tubercle, tori maxillares. Pathology: OA medial clavicle with pitting, OP and deformation. OA C5-6 bodies and L5-S1 zygapophyseal articulations. OP and Schmorl's nodes of lumbar vertebrae. Slight cribra orbitalia of both orbits. Slight graining and new bone on shaft ?L. fibula. Sex: ?Male, Age; 20-25 Sk. 3144 **Condition: Good** Fairly complete skeleton and skull. Determination of age: Slight tooth wear, no obvious signs of degeneration. Determination of sex: Narrow sciatic notch, bones medium, skull and mandible fairly robust. Height: 168.7 cm from Fems+Tibs. Teeth: - - 6 - - - - - - - - 6 - -U76543/1 /234567U Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: --3----- 2 3 2+2+3--3 - 2+3-2+2+3 2 -Non-Metric Traits: Lambdoid wormians, post-condylar canals. Pathology: There is a deposit of new bone at the centre of the soleal line of the L, tibia. The shaft is slightly enlarged at this point with a raised area, but with an unbroken periosteum. Possibly the result of an ossifying haematoma? Extra bone: L. patella.

Sk. 3145 Sex: ?Male, Age: MA-Old?

Condition: Poor-Fair

Most of skeleton and skull, but R. arm and innominate missing (3147?). Determination of age: Medium-heavy tooth wear, some degeneration. Determination of sex: Bones seem quite robust, large glabella, mastoids and occipital crest. Rounded mandible.

Height: 167.7 cm from L. Ulna. Teeth:

Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition Scores:

- - 6- - 7 - 5 4 5 - - - 7 - -- - ? 3+ 3+ - - - - 3+ 4+ 3+ 3+ 5 4+ -

Non-Metric Traits: R. double mental foramen, R. parietal foramen.

Pathology: Cribra orbitalia of both orbits. OP of C7. OA of T1 facet for head of rib (only R. side preserved). Healed osteochondritic lesion lateral condyle of L. humerus (6x3mm) with smooth floor and lipped edges, some eburnation dorsally. OP lateral condyle.

Sk. 3146 Sex: ?Female, Age: Adult Condition: Fair Frags of mandible, L. malar, clavicles. R. scapula and humerus only. Determination of sex: Sharp border of orbit, bones gracile. Teeth: 8?-----Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores: M3 - 2-Pathology: Slight lipping of inferior border medial R. clavicle, possibly slight remodelling of facet in that area - no fossa for costo-clavicular ligament, just an attachment. Note: Some in 3127?, 3123? Sk. 4001 Sex: Female, Age: >30 Condition: Fair-Good Almost complete skeleton and skull. Determination of age: Tooth wear medium, medial clavicle fused. Determination of sex: Sciatic notch wide, pre-auricular sulcus, orbit sharp, smooth inion, bones and mandible gracile. Height: 158.8 cm from L. Fem+Tib. Teeth: CAICA ---- /234567/ 876/4321 12345678 CA Calculus: Medium Hypoplasia: Slight Resorption: Slight Attrition Scores: - - - - - - - - - 3-3455+6-3+5?-433-3 33-3454+43 Non-Metric Traits: Third trochanters, parietal foramina. Pathology: ?Cribra orbitalia of both orbits. Fracture of R. clavicle shaft, almost no shortening or distortion, smooth callus. Fracture of one lower rib midshaft, well healed with little callus or distortion. Schmorl's nodes T11-L5 vertebrae. Extra bone: 3 frags adult skull, 2 frags infant skull, rib frag, part of L. talus, and animal bone fragment. Sk. 4002 Sex: ?, Age: Old Condition: Fair-Poor Frags of skull and R. arm only. Determination of age: Medium-heavy tooth wear.

Determination of sex: Bones and skull medium.

Teeth:

С

-765. . 2 8XX/4/XX - - - 4 - - /8 Calculus: Medium Hypoplasia: None Resorption: Heavy Attrition Scores: - 3 4+ 6- - 6- -. 4 - - - 5 - - - - 5 - - - 4 Pathology: OA of inferior surface of ?C7 vertebral body, reactive bone growth. Bones seem fairly osteoporotic. Note: Some in 3127? <u>Sk. 4004</u> Child, Age: c.8 Condition: Fair Skull, L. arm and legs. Determination of age: Tooth eruption, long bone length. Teeth: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ -U6///-- -----Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Non-Metric Traits: Epicondylar process L. humerus, L. double hypoglossal canal, L. post-condylar canal. Extra bone: L. femur and tibia of child (c.7-8). R. femur, ulnae, L. radius, maxilla (U76-4U21 /2/4567U), scapula and vertebrae of larger child (c.11-12). Frag femur, R. tibia and fibula of infant. Frags adult fibula, tibia, MT, MC, phalanx. rib. Note: Some in 3127? Sk. 4007 Child, Age: 18-24m? Condition: Poor Frags of skull and femora only. Determination of age: Long bone size. Sk. 4009 Sex: Female, Age: MA? **Condition: Good** Most of post-cranial skeleton except lower legs and R. shoulder. No skull, mandible present. Determination of age: Slight tooth wear. Determination of sex: Bones gracile, very wide sciatic notch. Height: 151.5 cm from Femora. Teeth: 87654321 12//5678 Calculus: Medium Hypoplasia: Medium Resorption: Medium Attrition Scores: 2 2+4 2+2+3-3-4+ 4+3---3-4 2+2 Non-Metric Traits: Third trochanters. Pathology: OP articular facets of ribs, OA rib head articulation of T1 vertebra, slight OP patella border, Schmorl's nodes T11-L2, slight spina bifida S4-5.

Fracture midshaft L. radius, slight misalignment but well healed, little callus.

Extra bone: Infant/foetal tibia shaft (bagged with fingers).

<u>Sk. 4012</u> Child, Age: 4-5 Condition: Fair Skull, L. arm and legs. Determination of age: Tooth eruption, long bone length.

Teeth:

---ed/// -//de------ed/// ///de---C

Calculus: None Hypoplasia: None Resorption: None Extra bone: Frag of smaller R. ilium.

<u>Sk. 4016</u> Sex: Male, Age: MA? Condition: Fair-Good Skull, frags of both arms, axial skeleton and femora. Determination of age: Tooth wear medium, some degeneration. Determination of sex: Sciatic notch appears narrow. Height: 167.6 cm from R. Femur. Teeth:

A

--6543/1 //345/7/ 87654321 1234567/ CA

Calculus: Heavy Hypoplasia: Slight Resorption: Slight Attrition Scores (some obscured by calculus):

- - ? ? ? 3- - 5+ - - 6-6 6 - 4+-

?????3+35 534455+4-

Non-Metric Traits: 3rd trochanters, atlas double condylar facet L., metopism, lambdoid & sagittal wormians, R. parietal foramen.

Pathology: Small patches of new bone in L. scapula glenoid fossa and larger lesion on head L. humerus near medio-distal edge (18x16mm with patch of new bone inside). May be some erosion but periosteum intact so main part is sclerosis. Possibly OA? Head is small compared with femoral head and the bone is not particularly robust suggesting little use. Slight OP thoracic vertebrae, slight lipping head L. femur border and fovea. Schmorl's nodes T10-L3 vertebrae.

Extra bone: Distal end L. humerus, rib and L1-3 of sub-adult (4018?), T12 of ?adult.

Sk. 4017 Sex: Female, Age: MA?

Condition: Poor-Fair

Skull almost complete, unbroken. Most long bones present but fragmentary. Determination of age: Medium tooth wear, slight degeneration. Determination of sex: Sciatic notch probably wide, skull quite robust but mandible and long bones fairly gracile. Teeth:

8//5///X /////6~-/7X/XX2/ /////678 Calculus: Medium Hypoplasia: Not assessable Resorption: Heavy Attrition Scores: 3--- 5--- - - - - - - 5+--- 4 - - - 5 + - - - - 5 4 2+ Non-Metric Traits: Epipteric bones both sides, lambdoid wormians, R, double hypoglossal canal. Pathology: Slight OP some thoracic vertebrae, large OP of S1 body and L5. Extra bone: Distal frag ulna, frag clavicle (bagged with L. foot), 2 finger phalanges (one with ribs and one with L. foot). Note: Some post-cranial in 4030? Sk. 4018 Sex: ?Female, Age: 18-21 Condition: Fair Most of R. leg missing, some bones disarticulated but most seem to belong together. Determination of age: Slight-medium tooth wear, femoral and humeral heads just fusing, distal ulna and iliac rim unfused. Determination of sex: Sciatic notch probably wide, skull gracile. Teeth: /////// //345678 876?432/ 1234?678 Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores: 2-3 4+-2+4 4+- 5 4+4+3+-4 3 2-Non-Metric Traits: Slight 3rd trochanter L., R. parietal foramen, double hypoglossal canals. Pathology: Slight remodelling of medial border of L. femur about one third down the shaft - new bone patch, unbroken periosteum, cortical thickening? Cribra orbitalia of both orbits. Extra bone: Adult L. clavicle, L. ulna, frag L. tibia shaft, juvenile ischium and ulna (4029?). Animal long bone shaft. Note: Some in 4011? Sk. 4019 Sex: Male, Age: Old? Condition: Fair Skull, R. arm and shoulder, L. ulna and both femora. Determination of age: Tooth wear medium-heavy, some degeneration. Determination of sex: Large robust bones, skull and mandible. Height: 186.5 cm from R. Ulna. Teeth: -7X//3/1 //345X78 8765432/ //345X78 A Calculus: Slight Hypoplasia: Slight Resorption: Heavy Attrition Scores: - 4+--- - 5+-6- --555-44?

2+4654+4+4 - - 44+5-4+4?

Non-Metric Traits: Lambdoid wormians, R. parietal foramen, R. post-condylar canal, tori mandibulares.

Pathology: New bone growth head L. femur around fovea, with pitting and lipping of border. OA lateral R. clavicle (pitting, OP and enlargement). OA bodies C3-4, C6-7 and facets of C3-4 (pitting, new bone, OP and sclerosis). C7 may have been ankylosed to T1 body. Oa R. radial tuberosity. Maxillary sinusitis of L. sinus. Depressed fracture of frontal bone slightly to L. of midline (c.27x13mm). Slight pitting inside lesion area and possible signs of infection over most of frontal superior to lesion. Note: Some in 4011/4028?

<u>Sk. 4021</u> Sex: Male, Age: 18-25

Condition: Fair

Skull, frags of arms, ribs and spine.

Determination of age: Slight tooth wear, medial clavicle just fusing? Determination of sex: Skull and bones large and robust.

Height: 178.9 cm from R. Humerus.

Teeth:

87654/// 1/34567U

U765/32X /234567U

Calculus: Medium Hypoplasia: Slight Resorption: Slight Attrition Scores:

1 2 - 3 3 3 - - - 3 - - 3 3 - 3 3 2 - -

- 2-32 - 2+2 - - 2+2+3-2+32- -

Non-Metric Traits: Lambdoid wormians, slight parietal foramina, R. double mental foramen.

Pathology: Pitting on parietals and superior part of frontal and occipital, suggesting possible scalp infection (or healed porotic hyperostosis?). Cribra orbitalia of both orbits.

Extra bone: 2 frags sub-adult vertebrae, upper R. mesial incisor with wear=5. Note: Some in 4011/4028?

<u>Sk. 4022</u> Sex: ?, Age: c.18-20

Condition: Poor-Fair

Very fragmentary skeleton and skull.

Determination of age: Tooth wear slight, prox hum, radius and ulna unfused, distal humerus fused, lateral clavicle unfused.

Determination of sex: Large mastoid, mandible rounded?

Teeth:

076543// //345670

87654/2 - -/4567/

Calculus: None Hypoplasia: None Resorption: None Attrition Scores:

2-2+3+22 - 3-- - - 22-3+3- -

Non-Metric Traits: Epicondylar process R. humerus.

Pathology: Cribra orbitalia of L. orbit.

Extra bone: ?Adult L. cuboid (bagged with vertebrae), adult pollicial phalanx.

Sk. 4027 Sex: Female, Age: Young Condition: Fair Most of skeleton and skull present. Determination of age: Slight-Medium tooth wear, medial clavicle fused. Determination of sex: Wide sciatic notch, large glabella, Height: 177.7 cm from Radii. Teeth: 876//// ///4567--7654321 /2345678 R Calculus: Medium Hypoplasia: Slight Resorption: Slight Attrition Scores: 3+4 4 3 4+5 - - 5 4 3 4 4 3+3-Non-Metric Traits: R. double hypoglossal canal. Pathology: Fracture L. ulna ?midshaft, well healed with large amount of smooth rounded callus formation, and small exostosis on ?anterior edge. Slight deformation of R. femoral lesser trochanter - flatter all over than L., lipped towards anterior and groove at anterior is much deeper than usual appears that trochanter has been pushed/pulled round to the anterior, possibly some traumatic cause? Articular facet for L5 on S1 L. ala. Extra bone: Axis, large lumbar vertebra, R. malar, Sk. 4029 Child, Age: <6 Condition: Fair A few fragments of skull, ribs, vertebrae and R. ilium. Determination of age: 1st adult molar unerupted. Teeth: ------Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Extra bone: Small frag of adult ?sacrum and ?ischium. Note: Some in 4011/4028? Sk. 4038 Sex: Male, Age: Y-MA Condition: Fair Fairly complete skeleton and skull. Determination of age: Medium tooth wear, medial clavicle fused. Determination of sex: Large robust bones with prominent muscle markings. Height: 162.9 cm from R. Radius. Teeth: -765432/ /234567U 87654321 /2345678 Calculus: Slight Hypoplasia: Slight Resorption: None

Attrition Scores:

- 4 5 5+ 5+ 5 4 - - 4+ 5 4+ 4+ 5 4 -

3 3+4 3+3+4 3 3+ - 3 4 3+3+4 3+3

Non-Metric Traits: Metopism, parietal foramina, coronal, sagittal and lambdoid wormians.

Pathology: Some OP T and L vertebrae. Insertion latissimus dorsi R. humerus Is a deep groove with rounded edges/new bone, suggesting frequent rigorous use? L. not affected. Cut in R. deltoid tuberosity, apparently antemortem, no sign of healing. Medial border of L. femur also appears to have been cut around the time of death. Two cut areas noted on the skull - over region of lambda and onto L. parietal, and through the middle of both parietals from R. to L. See Notes on Trauma for full description.

Sk. 4039 Sex: Male, Age: Adult

Condition: Fair

R. leg and L. lower leg only.

Determination of sex: Bones large and robust.

Height: 169.8 cm from R. Tibia.

Pathology: Lipping of L. femoral condyles, slight lipping head R. 4th metatarsal, OA 1st hallucial phalanx with enlargement of proximal end, new bone and OP. Head of hallucial metatarsal also affected. Some periosteal reaction on all metatarsals of L. foot especially 4th laterally, and anomalous articulation with 3rd medially.

Note: Skull = 3142 or 4041?, post-cranial = 3143/3127/4035?

Sk. 4040 Sex: Male?, Age: Adult

Condition: Fair

L. lower leg, R. fibula and feet only.

Determination of sex: Bones not particularly robust, but large?

Height: 166.7 cm from L. Fibula.

Extra bone: Finger phalanx.

Note: Skull = 3142?, post-cranial = 3143/3127/4035?

<u>Sk. 4042/4098</u> Sex: Male, Age: 18-20

Condition: Poor

Most of skeleton, except L. lower arm. Lower leg of 4098 probably belongs to this individual.

Determination of age: Slight tooth wear, prox hum and tib unfused,

acetabulum joined, femur partly fused.

Determination of sex: Sciatic notch narrow, large brow ridges and mastoids. Teeth:

//6//3/1 ---4/6--

8765432/ /2345678

Calculus: Medium Hypoplasia: Gross Resorption: None Attrition Scores:

-- 4 - - 4 - 3 - - - 3 - 4 - -2 3 4 3 3 4 3 - - - 4 4 3 4 4 3 - 2

Non-Metric Traits: Parietal foramina, double condylar facet L. occipital.

Pathology: Periosteal reactive bone growth can be seen on fragment of R. fibula. The L. tibia and fibula (4098) are also affected. The L. tibia has slight new bone growth periosteally along the interosseous line. The L. fibula has

an enlarged thickened shaft with porous cortex, graining, pitting, especially in the ?distal half where there are two small holes (possibly cloacae?), suggestive of osteomyelitis.

<u>Sk. 4043</u> Sex: ?Male, Age: c.30 Condition: Poor L. shoulder, arm, innominate and leg and R. lower leg. Determination of age: Medial clavicle recently fused? Determination of sex: Sciatic notch appears narrow, bones fairly large. Pathology: ?Fracture or ossified haematoma distal fragment of L. ulna - lump with small exostosis, periosteum intact. Note: Skull = 4047?, post-cranial = 4037?

<u>Sk. 4048</u> Sex: Male, Age: MA? Condition: Poor Most of skeleton and mandible, but no skull. Determination of age: Tooth wear medium, some degeneration. Determination of sex: Bones large and robust. Teeth:

87X54321 12345678

Δ

Calculus: None Hypoplasia: None Resorption: Heavy Non-Metric Traits: 3rd trochanter both sides. Pathology: Slight OP R. humeral condyles, slight lipping linea aspera, exostosis L. femur proximal end at attachment of vastus medialis (c.6mm high, 14mm long). Note: Skull = 4046?

Sk. 4050 Sex: Female, Age: 18-22

Condition: Fair

A few fragments of skull and most of skeleton. R. innominate missing. Determination of age: Tooth wear slight, prox hum just fusing, dist rad and ulna unfused, fem fused dist and prox.

Determination of sex: Sciatic notch appears wide, sub-pubic angle wide, glabella smooth, orbit sharp.

Height: 147.8 cm from L. Fibula.

Teeth:

-----78

Calculus: None Hypoplasia: None Resorption: None Attrition Scores:

- - - - - - - - - - 2 2-

Non-Metric Traits: R. 3rd trochanter, L. double hypoglossal canal, R. parietal foramen.

Pathology: Slight extra rough bone at insertion for latissimus dorsi of R. humerus. L. is unaffected, although there is a slight exostosis on the lateral border approx. one third down the shaft. Cut marks on midshaft L. femur probably happened in antiquity during digging of another grave (e.g. 4054). Extra bone: Distal frag juvenile L. radius (12-18m).

Sk. 4054 Sex: Male, Age: Young? Condition: Fair-Poor Fairly complete skeleton and skull. Determination of age: Medium tooth wear. Determination of sex: Bones appear robust, sciatic notch and sub-pubic angle narrow, large mastoids. Teeth: 876//3// 12345678 8765432/ /-345678 Calculus: Slight Hypoplasia: Slight Resorption: Slight Attrition Scores: 345 - - 5 - -5 4+ 4+ 4 4+ 5 4 3 3 4 4+ 3+ 3+ 4+ 4+ - - - 4+ 3- 3- 4+ 4 3 Non-Metric Traits: Large Poirier's facet R., lambdoid wormians, Pathology: Schmorl's nodes of lower thoracic vertebrae. Cribra orbitalia of both orbits. Extra bone: Fragments of frontal and R. malar, fragment of L. ilium with OP of SIJ. Sk. 4055/4062 Sex: Male, Age: Young? Condition: Poor Frags of skull, L. arm and innominate, plus frags of R. arm, torso, feet and hands from 4062. Determination of age: Tooth wear slight. Determination of sex: Large, robust bones and large glabella. Height: 184.5 cm from R. Radius. Teeth: ----/67/ * Calculus: None Hypoplasia: None Resorption: None Attrition Scores: Non-Metric Traits: L. post-condylar canal and L. double hypoglossal canal. Pathology: The skull shows at least three cut marks - diagonally across the frontal from R. orbit to L. parietal, midway across R. parietal, and shaving surface of R. parietal dorsally to the second. Most of the edges of the frags appear abraided and are the same colour as the outer surface of the skull. Cuts obviously occurred in antiquity, but whether they were inflicted immediately prior to death or whether they are artefacts caused by grave digging is difficult to say. Also cut in one rib. Cribra L. orbit. Note: Some of post-cranial in 4063? <u>Sk. 4057</u> Sex: ?Female, Age: 30+ **Condition:** Poor Frags of skull and upper half of skeleton only.

Determination of age: Tooth wear medium, medial clavicle fused.

Determination of sex: Bones appear gracile, glabella smooth, mastoids small.

Teeth:

--/54321 12345/--

-//54321 12345678

Calculus: Slight Hypoplasia: Slight Resorption: Slight Attrition Scores:

- - - 4 2+3 3 4+ 4+3 3 2+4 3+5 3 Non Metric Traits: Deristal foreming, control we

Non-Metric Traits: Parietal foramina, sagittal wormians.

Pathology: Slight cribra orbitalia of L. orbit. OA lateral end L. clavicle with pitting and deformation.

Note: Some in 4058?

Sk. 4060 Sex: Male, Age: Old

Condition: Poor

Most of skeleton except skull (= 4059?), very fragmentary.

Determination of age: Degenerative processes.

Determination of sex: Bones large and robust.

Pathology: R. scapula glenoid appears slightly enlarged with OP of border. OP acetabular rims, possibly also OA. OA articular facets some ribs. Large OPs L4? and OA lower body. OA S1 body, R. zygapophyseal facets of C7-T1 and body C6-7. Gross OA L.acetabulum with enlargement, flattening, OP, periosteal new bone on outer surface with pitting. Probable cyst/abscess under centre of acetabulum. L. femur head also affected with OP of fovea, destruction, pitting, cysts and deformation. ?Osteoma medial L. femur.

Sk. 4061 Sex: ?Female, Age: Y-MA?

Condition: Poor

Most of skeleton except skull (= 4056?), in fragmentary condition. Determination of age: Slight tooth wear, slight degeneration. Determination of sex: Bones gracile. Teeth:

8 / / - - - - - / / / 7 8 Calculus: None Hypoplasia: None Resorption: None Attrition Scores:

Pathology: Schmorl's nodes of lower thoracic vertebrae. Slight OP of SIJ. Roughened gluteal tuberosities both sides.

<u>Sk. 4064</u> Sex: ?, Age: Adult Condition: V. Poor Lower half only, very fragmentary. Determination of age: Distal femur fused.

<u>Sk. 4065</u> Sex: ?, Age: Sub-ad Condition: Poor Fragments of skull, mandible and R. shoulder only. Determination of age: Slight tooth wear, M3s unerupted.

Teeth: U7654321 ----8 R Calculus: None Hypoplasia: None Resorption; None Attrition Scores: -23----- 2 3 2+3--3 3+ - - - - 2 Sk. 4066 Sex: Female?, Age: Adult Condition: V. Poor Fragments of the legs only. Determination of age: Distal femora and tibiae fused. Determination of sex: Bones appear small and gracile. Note: Skull = 4025? Sk. 4067 Sex: Male, Age: Adult Condition: V. Poor Lower legs and feet only. Determination of sex: Bones large and robust. Pathology: Slight OP lipping posterior articular surface for talus on both calcaneii. L. is partially sclerosed. Note: Skull = 4023? or 4069? or 4020? Sk. 4071 Sex: Male?, Age: Adult Condition: V. Poor Most of skeleton in very fragmentary state. Determination of age: Femoral head fused. Determination of sex: Bones appear large. Pathology: OP of some thoracic and lumbar vertebrae. Sk. 4072 Sex: ?, Age: Adult? Condition: V. Poor A few fragments of torso and L. arm only. Sk. 4073 Sex: Male, Age: Young? Condition: Poor Most of skeleton and skull in very fragmentary state. Determination of age: Slight tooth wear. Determination of sex: Bones large and robust. Teeth: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ -/65/321 --3 -----R Calculus: None Hypoplasia: None Resorption: None Attrition Scores: --3+--433+ --4----Non-Metric Traits: R. atlas double condylar facet, L. post-condylar canal.

<u>Sk. 4074</u> Sex: ?, Age: Adult Condition: V. Poor

A few fragments of skull, R. arm, torso, femora and R. tibia. Determination of age: Distal femora fused. Teeth: ----678 R Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable Attrition Scores: Sk. 4075 Sex: ?, Age: Adult **Condition:** Poor Fragments of skull, torso, small frags of arms, and R. leg. Determination of age: Bones appear to be fused. Determination of sex: Bones appear large. Teeth: -7//4321 1-3///// Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition Scores: - - - - - - - - - - - 5 -- 4+ - - 5 ? 4+ 5 5 - ? - - - -Sk. 4076 Sex: ?, Age: 35-45? Condition: Poor Fragments of skull, vertebrae, ribs and scapula only. Determination of age: Tooth wear medium. Determination of sex: Large mastoid. Teeth: _____ -7 - - - - - - / 5678 Calculus: Medium Hypoplasia: None Resorption: None Attrition Scores: - 3 - - - - - - 4+5 4+2 <u>Sk. 4077</u> Sex: Male, Age: 35-45 Condition: Poor Most of skeleton in fragmentary state. Determination of age: Tooth wear medium, medial clavicle fused. Determination of sex: Sub-pubic angle narrow, bones large and robust, large glabella. Teeth: 8---432- 1234----/765-3-1 ---45678 Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition Scores: 2 - - 3+3 3+ - 4 3+3 4+ - - -

- 4 5+ 4+ - 3 - 3 - - - 4+ 5 5+ 4+ 3-

Non-Metric Traits: L. parietal foramen.

Pathology: OP upper border of L4? body. Healed osteochondritic lesion (oval with new bone inside in the form of a cone, 10x6mm) in the superiomedial edge of the R. talus.

Extra bone: Fragment of adult premolar (bagged with vertebrae), fragment of distal tibia and fibula.

Sk. 4078 Sex: Male, Age: MA-Old

Condition: Poor

Most of skeleton and skull, fragmentary.

Determination of age: Almost all teeth lost ante-mortem, degeneration. Determination of sex: Bones large and robust, large occipital crest. Teeth:

A ?XXXXXX//X/XXX// XXX/XXXX/XXX/XX?

Calculus: Not assessable Hypoplasia: Not assessable Resorption: Not assessable

Non-Metric Traits: L. double hypoglossal canal, R. parietal foramen. Pathology: Most thoracic vertebrae show medium OP and may be osteoporotic but are very poor. L. acetabulum appears slightly flattened, some new bone on floor, lipping at border. OA of C7? upper body. Slight OP of fovea both femora.

Sk. 4079 Sex: Male, Age: Adult

Condition: Poor

Legs and feet only.

Determination of sex: Bones large and robust. Extra bone: Small femoral head, cervical vertebra. Note: Skull = 4084/4085/4094?, post-cranial = 4082?

<u>Sk. 4080</u> Sex: ?, Age: Adult? Condition: V. Poor A few fragments of R. leg, L. lower leg and L. innominate. Determination of sex: Large acetabulum?

<u>Sk. 4081</u> Sex: ?, Age: Adult Condition: Poor Legs and feet only, very fragmentary. Determination of age: Distal femur and proximal tibia fused. Pathology: Calcified ligaments L. patella. Extra bone: Cervical vertebra and animal vertebra.

<u>Sk. 4083</u> Sex: ?Female, Age: Adult Condition: Poor Legs and feet only. Determination of sex: Bones appear gracile. <u>Sk. 4086</u> Sex: Female, Age: 30+ Condition: Poor Fragments of R. arm, shoulder, ribs, vertebrae and pelvis. Determination of sex: Pre-auricular sulcus. Pathology: Slight OP S1 body. Note: Some in 4082?

<u>Sk. 4089</u> Sex: Male, Age: 35-45? Condition: Poor Most of the skeleton and skull in fragmentary and eroded state. Determination of age: Medium tooth wear. Determination of sex: Bones and mandible robust, large mastoids. Teeth:

---- 4+ 4+

<u>Sk. 4093</u> Sex: ?, Age: Sub-ad Condition: V. Poor A few fragments of L. shoulder, ribs, vertebrae and L. leg. Determination of age: Humerus head unfused. Note: Skull = 4085?

<u>Sk. 4097</u> Child, Age: c.9 Condition: Fair-Poor R. arm, ribs, ilium and femur only. Determination of age: Long bone lengths.

Sk. 8000 Sex: Female, Age: MA-Old Condition: Fair Fragments of maxilla and mandible, torso, arms and L. femur. Determination of age: Tooth wear medium. Determination of sex: Sciatic notch medium-wide, pre-auricular sulcus, bones gracile. Teeth: R C 876543// ----/// 876////- -/345678 RRR Calculus: Slight Hypoplasia: Slight Resorption: Slight Attrition Scores: 3 4 4+ - - - - - 4 - - - 4+3+

Non-Metric Traits: Tori mandibulares. Pathology: Schmori's nodes of 711-12?, and L2-3. OP of L5. Slight lipping of ischial tuberosities.

Extra bone: Some frags of animal vertebrae and carpals/tarsals.

<u>Sk. 8001</u> Sex: Female, Age: 18-25
Condition: Fair
Fragmentary skeleton and skull.
Determination of age: Iliac rim just fusing, M3s unerupted.
Determination of sex: Sciatic notch appears fairly wide, ?pre-auricular sulcus, bones medium.
Teeth:
U76-432/123//67O76543211234567U
Calculus: Slight Hypoplasia: Slight Resorption: None
Attrition Scores:
-23-2+22-3-2+--32-232232+3-32+3+2+232-

Non-Metric Traits: Acetabular crease both sides.

Sk. 8003/8004 Sex: Male, Age: 35-45?

Condition: Fair-Good

Skull (8004 and 8018) and most of skeleton.

Determination of age: Tooth wear medium, some degeneration. Determination of sex: Sciatic notch and sub-pubic angle narrow, bones very large and robust, large glabella. Height: 178.9 cm from L. Tibia. Teeth:

A /7X/432//234/X/-

a set y a set y y set was set as set y set y

Calculus: Heavy Hypoplasia: Not assessable Resorption: Medium Attrition Scores:

- 4+ - - 5+ 4+ 4+ - - 4+ 4 5 - - - -

Non-Metric Traits: Poirier's facet both sides, L. parietal foramen. Pathology: OP of all remaining vertebrae, T9 has large DISH lip on lower border. Schmorl's node of T12. Lipping of most bones (DISH?). Graining

medially shaft L. tibia and fibula.

Extra bone: Various animal bones, fragment of extra patella and proximal end of sub-adult L. radius.

Note: Some bones in 8002 probably belong here.

<u>Sk. 8005</u> Sex: Male, Age: 25-35

Condition: Fair-Poor

Most of skeleton and skull in fragmentary state.

Determination of age: Medium tooth wear, medial clavicle fused.

Determination of sex: Large glabella and occipital crest.

Height: 169.7 cm from R. Radius.

Teeth:

- 7854321 123458 - -U765432/ /234567U Calculus: Heavy Hypoplasia: Slight Resorption: Slight Attrition Scores: - 4 5+4+5 5 5 5 5455+44- -- 3+ 4+ 5 4+ 4+ 5 - - 5 4+ 4+ 4+ 4 3+ -Pathology: Schmorl's nodes of some mid-thoracic vertebrae. Large osteochondritic pit in medial condyle of L. femur (19x15mm, 5mm deep), pitted floor, slight healing around edges. Sex: Female, Age: MA Sk. 8007 Condition: Poor-Fair Most of skeleton except L. tibia (present on plan). Determination of age: Tooth wear medium, some degeneration. Determination of sex: Small gracile bones and skull. Teeth: AAA -7654/21 1/34/X7---X////X X2/45X78 Calculus: Heavy Hypoplasia: Slight Resorption: Heavy Attrition Scores: - 3 6-7 7 - 5+5+ 5+- 5 6-- - 4 -

Non-Metric Traits: Parietal foramina both sides.

Pathology: Cortices of the bones (except femora) appear thin, osteoporotic? OA edge of R. acetabulum with pitting and new bone deposits. Two possible ante-mortem cuts on the skull (possibly due to digging in antiquity?). The one on the L. parietal is more convincing - oblique angle, cut from near coronal suture extending to lambda, rough but edges sharp and well-defined. Could be post-mortem, but if so happened in antiquity.

Sk. 8008 Sex: Male?, Age: 30+

Condition: Fair

Most of skeleton except skull (8009?) and R. humerus.

Determination of age: Medial clavicle fused.

Determination of sex: Bones quite large and robust.

Height: 165.4 cm from Ulnae.

Non-Metric Traits: Large third trochanters both sides.

Pathology: OA medial end L. clavicle with reactive bone growth and destruction/pitting. Shafts of all leg bones are grained with some new bone growth and thickening, especially on anterior surface. It is worst on medial and lateral surfaces of tibiae. One metatarsal shaft has fibrebone. Non-specific periostitis?

Note: R. scapula may not belong.

<u>Sk. 8011</u> Sex: ?, Age: Adult Condition: Fair L. leg and R. lower leg only. Non-Metric Traits: Large L. third trochanter. Pathology: Periosteal reaction on both tiblal shafts with graining and some thickening, especially midshaft laterally R. (area c.24x20mm). Fibulae also affected.

Note: Some in 8006?/8010?

Sk. 8013 Sex: Male, Age: 30+ Condition: Fair L. clavicle, L. forearm, hands, lower legs and feet. Determination of age: Medial clavicle fused. Determination of sex: Bones large and robust. Height: 185.1 cm from L. Ulna. Pathology: OP of ?L3. Slight periosteal reaction of fibulae with graining and thickenina. Extra bone: Frag R, hallucial metatarsal with part of an exostosis(?) on proximal surface, continuous with periosteum (broken at this point). Note: Some in 8006/8010? Sk. 8015 Sex: Male, Age: MA? Condition: Poor Very fragmentary skeleton lacking L. forearm, pelvis and L.leg. Determination of age: Tooth wear medium-heavy. Determination of sex: Bones very large. Teeth: Calculus: Slight Hypoplasia: None Resorption: Medium Attrition Scores: Pathology: R. articular facets of C2-4 vertebrae are significantly larger than L. Sk. 8017 Child, Age: 12-13? Condition: Poor Pelvis and legs only. Determination of age: Long bone length. Note: Could be lower half of 4065. Sex: Female, Age: 25-35? Sk. 8019 Condition: V. Poor Fragmented and flaky bones and skull. Determination of age: Medium tooth wear. Determination of sex: Bones small and gracile, mastoids and occipital small, glabella medium. Teeth: R 87654321 12U45678 87654321 //345678

C R

R

Calculus: Medium Hypoplasia: Slight Resorption: Slight

Attrition Scores:

2+4 5 3 3-3-2 4 4 2 -3-3+5 4 -3-3+4+2 2 -3-2+ -2 2 4+3+3=Non-Metric Traits: Parietal foramina.

Sk. 8020 Sex: Female, Age: 18-25 Condition: Poor Most of the skeleton and skull in fragmentary state. Determination of age: Slight tooth wear, elbow fused, acetabulum united. Determination of sex: Bones small and gracile. Teeth: -76---- 1-3-----76543-1 1-3----R Hypoplasia: Slight Resorption: None Calculus: Medium Attrition Scores: - 2+ 4 - - - - - 3-- 3 - - - - -- 2 4 3 -- 3 +- 3 3 - 4 -- ---<u>Sk. 8021</u> Sex: Male?, Age: 35-45? Condition: V. Poor Most of skeleton in fragmentary and flaky condition. Determination of age: Tooth wear medium. Determination of sex: Bones seem medium-large. Teeth: 87-54321 12345-78 87654321 12345-78 А Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition Scores: ? 5 - 5 4 4+4 4+ 4+4 4+4 5 - 5 4 4+5743+434 4343+4-54 <u>Sk. 8022</u> Sex: Male, Age: 25-35? **Condition:** Poor Most of skeleton and skull in fragmentary and flaky state. Determination of age: Tooth wear medium. Determination of sex: Bones large and robust. Teeth: 876543// /23456// -7654321 - -345678 Calculus: Medium Hypoplasia: Medium Resorption: Medium Attrition Scores: 3 4 5+ 5+ 5 + 5 - - - 2+ 4+ 6- 5 5+ - -- 4 5 4 4 4 4 4 + - - 2 4 3 + 5 3 + 3

Cemetery 2: Articulated Remains

Sk. 4557 Child, Age: c.4

Condition: Poor

Most of skeleton and skull in fragmentary state. Determination of age: Tooth eruption, long bone length.

Teeth:

---edcba a/cdeU--

--Uedcb/ //cdeU--

Calculus: None Hypoplasia: Slight Resorption: None Pathology: Cribra orbitalia of both orbits.

Sk. 4558 Sex: Female, Age: c.30-35

Condition: Fair

Fairly complete skeleton and skull.

Determination of age: Tooth wear slight, medial clavicle fused.

Determination of sex: Sciatic notch fairly wide, gracile bones, mandible and skull.

Height: 156.8 cm from L. Humerus.

Teeth:

87654/2/ 1//45678

U7654/// /2345678

Calculus: Slight Hypoplasia: Slight Resorption: None

Attrition Scores:

1 2 3 2+2+-2 - 3+- - 2+2+3 2 1

- 2 3 2+2+- - - - 2+3 2+2+3 2+1

Non-Metric Traits: Metopism, lambdoid wormians, inca bone.

Pathology: Partial bilateral ankylosis of SIJs (very smooth on L.) possibly due to early stages of ankylosing spondylitis, although this has a male:female ratio of 9:1. Periosteal reaction endocranially, particularly affecting the frontal bone, but also spreading approx halfway over parietals. Deposits thickest on most ventral parts. The bone is fairly compact at the centre but appears more porous at edges. Spread is symmetrical on either side of metopic suture. Growth in layers. Cause unknown.

<u>Sk. 4559</u> Child, Age: c.2? Condition: Poor Fragments of skull, R. arm, pelvis and legs. Determination of age: Size of long bones.

<u>Sk. 4563</u> Sex: Female, Age: MA-Old Condition: Poor Most of skeleton and skull in fragmentary state. Determination of age: Tooth wear heavy, some degeneration. Determination of sex: Bones and skull gracile. Teeth:

A /76//321 123XXX - -87654321 12//5XXX Α Calculus: Heavy Hypoplasia: None Resorption: Medium Attrition Scores: -75 - -55+5+ 5+5+5 - - - -46-654545 5 4 - - 4+- - -Non-Metric Traits: R. double hypoglossal canal, parietal foramina both sides. Pathology: Some OP on lumbar vertebrae? OA R. acetabulum (pitting proximal border), L. also affected on superior and inferior surfaces. OP and OA around fovea on both femoral heads (pitting, new bone and eburnation). Sk. 4580 Child, Age: 11-13 Condition: Poor Most bones and skull in fragmentary, flaky condition. Determination of age: Tooth eruption, long bone lengths. Teeth: RR -7654321 12 c / 56 --U76e0021 120de67-Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores: - 2 3---- 2 2+ 2+2 - - - 3---- 2 3 - - - 2 2 + 2 + 2 - - - 3 - 2 -Non-Metric Traits: Metopism. Pathology: Cribra orbitalia both orbits. Extra bone: Animal ulna fragments (bagged with ribs). Sk. 4584 Sex: Male, Age: Old? Condition: Fair-Good Fairly complete skeleton and skull. Determination of age: Tooth wear medium. Determination of sex: Skull and bones appear robust. Teeth: -7-/4/?X XXXXX6--XXXXXXXX XX3 4XXXX Calculus: None Hypoplasia: None Resorption: Heavy Attrition Scores: Non-Metric Traits: R. parietal foramen. Pathology: Cribra orbitalia of both orbits. Sk. 4587 Sex: Female, Age: Young? Condition: Fair Almost complete skeleton and skull. Determination of age: Tooth wear medium.

Determination of sex: Sciatic notch wide, pre-auticular sulcus, bones and skull gracile. Teeth: 87654321 123456/8 87654321 12345678 Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: 2+3 4 3+3+4 4 4+ 4+4 4 3+3+4 - 2 2 3 3+3-3-4 3 3+ 3+3 4 3-3-3+3 2+ Non-Metric Traits: L. atlas double condylar facet and occipital double condylar facet, R. torus auditivus. Pathology: Spina bifida occulta S4-5. Sk. 4602 Sex: ?Female, Age: MA-Old? **Condition: Poor** Most of skeleton and skull in fragmentary state. Determination of age: Tooth wear heavy, some degeneration. Determination of sex: Bones medium, skull gracile. Teeth: --65--21 1-34----C C Calculus: Heavy Hypoplasia: Slight Resorption: None Attrition Scores: - 6-3---55 5-33+----Pathology: Lipping R. glenoid fossa borders. Small fragment of R. femoral head which has survived shows gross OA changes with eburnation and pitting. Sk. 4665 Child, Age: 5-7 Condition: Fair-Poor Most of skeleton and skull in fragmentary state. Determination of age: Tooth eruption and long bone lengths. Teeth: --Oedcba abcdeO---UOedcba abcdeO--Calculus: None Hypoplasia: None Resorption: None <u>Sk. 4675</u> Sex: ?Male, Age: Adult Condition: Poor Fragmentary skeleton and skull. Determination of age: Proximal femur and ulna fused. Determination of sex: Bones large and robust. Teeth: -76---- - 234567 -87654321 12345X78 Α Calculus: Slight Hypoplasia: None Resorption: Slight

Attrition Scores:

- 3 4 - - - - - - - - 3-4+3 3 3+3 -2 3+4 3 3 4 3-3+ 3+3-4+3 3 - 3+2+

Sk. 4727Child, Age: c.4Condition: PoorVery fragmentary skeleton (limb bones only) and skull.Determination of age: Tooth eruption.Teeth:CC- UedUUUUbUdeU--

C C Calculus: None Hypoplasia: Medium Resorption: None Pathology: Hypoplastic lesions on most deciduous teeth. Occlusal carious lesions on all deciduous second molars probably result from this.

<u>Sk. 4728</u> Child, Age: c.6m Condition: Poor Very fragmentary skeleton (humeri, femora, tibiae) and skull. Determination of age: Tooth calcification. Teeth:

-----uu--u----

---ed-UU UbcdeU--

Calculus: None Hypoplasia: None Resorption: None

<u>Sk. 4729</u> Child, Age: c.9m

Condition: Poor

Very fragmentary skull and a few unrecognisable fragments of post-cranial skeleton.

Determination of age: Tooth calcification.

Teeth:

<u>Sk. 4732</u> Child, Age: Newborn Condition: Poor Fragments of skull, R. arm, R. femur, L. ilium, ribs and vertebrae. Determination of age: Tooth calcification and long bone lengths, mandibular symphysis unfused. Teeth:

<u>Sk. 4733</u> Child, Age: 6-9m Condition: Poor A few fragments of skull and unidentified post-cranial bones.

Condition: Fair Fairly complete skeleton and skull. Determination of age: Tooth wear slight-medium, some degeneration. Determination of sex: Sciatic notch wide?, bones and skull gracile. Height: 166.3 cm from L. Radius. Teeth:

C C - -6543 / 1 /2345678 87X54321 12345678 Calculus: Heavy Hypoplasia: None Resorption: Slight Attrition Scores: - - 3 3+4 4+ - 5 - 4 4+3+4 5 4 2

2 3 - 3+ 3+ 4+ 4 5 5 4 4+ 3+ 3+ 4+ 4 2

Pathology: Fragments of vertebrae show lipping, calcification of ligaments and possibly OA.

<u>Sk. 4796</u> Child, Age: n.b.-6m Condition: Fair-Poor Four small fragments of skull, 3 vertebra frags, R. femur and a few rib and misc fragments. Determination of age: Size of R. femur.

Pathology: Cortex of R. femur appears thick and there is new fibrous bone growth on the outer surface.

<u>Sk. 4805</u> Child, Age: Foetal? Condition: Poor A few fragments of very tiny infant skull and unidentified long bones.

<u>Sk. 4807</u> Child, Age: 18-24m
Condition: Fair
Fragments of skull, torso and legs only.
Determination of age: Tooth eruption.
Teeth:
-Ued-bU Ub/deU-Uedcb/ /bcdeUCalculus: None Hypoplasia: Slight Resorption: None
Pathology: Cribra orbitalia of both orbits.

<u>Sk. 4817</u> Child, Age: c.3-4 Condition: Fair-Poor Fragments of skull, legs and a few misc fragments. Determination of age: Tooth eruption. Teeth:

---edUUa_abc-eU-----dc//a//deU--Calculus: None_Hypoplasia: None_Resorption: None_

<u>Sk. 4818</u> Child, Age: c.2-3 Condition: Fair Fragmentary skull, ribs and L. ilium. Determination of age: Tooth eruption. Teeth: - - U e d c U U U - U d e - - -- - U e d / / / / / / d e U - -Calculus: None Hypoplasia: None Resorption: None

Non-Metric Traits: Metopism (but only 2-3 years old). Pathology: Cribra orbitalia of both orbits.

Sk. 4821 Child, Age: 7-8

Condition: Fair

Most of skeleton and skull in fragmentary state.

Determination of age: Tooth eruption and long bone lengths.

Teeth:

-U6edcba abcde6U-

-U6edcbO Obcde6U-

Calculus: None Hypoplasia: None Resorption: None Pathology: Cribra orbitalia of both orbits. Thin layer of new bone growth endocranially on the parietals (partial) and frontal. Same as that noted in Sk. 4558, but not as thick.

<u>Sk. 4822</u> Sex: Female, Age: 25-35
Condition: Fair-Poor
Fragmentary skeleton and skull, fairly complete from knees upwards.
Determination of age: Tooth wear medium, medial clavicle fused.
Determination of sex: Pre-auricular sulci, bones and skull gracile.
Teeth:
87654321 1-345-7 8765432 / //345673
Calculus: Medium Hypoplasia: Slight Resorption: Slight
Attrition Scores:
2 4 5 3-4 4 3-5 5 - 3+4 3- - 4 3 4 4 3-3-5 4+ - - 4 3-3-4 3+2+
Non-Metric Traits: L. third trochanter.

Sk. 4824 Child, Age: Newborn Condition: Poor A few fragments of skull, R. humerus and legs. Determination of age: Tooth calcification. Teeth: Calculus: None Hypoplasia: None Resorption: None

Sk. 4835 Sex: ?Female, Age: MA-Old? Condition: Poor-Fair Very fragmentary skeleton and skull. Determination of age: Tooth wear medium-heavy, some degeneration. Determination of sex: Bones fairly gracile. Teeth: AC: -7654321 1234 - - - -8/X543-1 1--X5X7U A (CR) Calculus: Slight Hypoplasia: None Resorption: Heavy Attrition Scores: - 6-6-5 5 4+5+6- 6-5+5 5+---5 - - 6 5 4+ - 6- 6- - - - 6- - 4 -Pathology: OA and OP proximal border R. acetabulum. Enlarged fovea both femoral heads. Lipping L? scapular glenoid fossa. Extra bone: Fragments of sacrum bagged with skull. <u>Sk. 4842</u> Sex: ?Female, Age: 35-45? Condition: Poor Most bones and fragments of skull present. Determination of age: Tooth wear medium, medial clavicle fused. Determination of sex: Wide sub-pubic angle and sciatic notch, bones large and robust. Teeth: /76543// ///4/67/ 87654//1 12345678 Calculus: Medium Hypoplasia: None Resorption: Slight Attrition Scores: - 4 5 3 3-3+-- - - - 3 - 5 4+-2+3+4+3-2+--4+4+442+3-4+4+3 Non-Metric Traits: R. third trochanter, torus palatinus, L. torus mandibularis, double hypoglossal canal both sides. Pathology: The R. clavicle has an extra piece of bone antero-laterally which appears almost as an extra lateral end superimposed on the original. A canal runs through the bone. The articular surface appears to be split into two levels. Sk. 4849 Sex: ?Male, Age: Adult Condition: Poor Most of skeleton and skull in fragmentary state. Determination of age: Some degeneration. Determination of sex: Bones appear robust, large glabella and inion. Teeth: XXXX//////XXXXXX?Calculus: Not assessable Hypoplasia: Not assessable Resorption: Medium

Non-Metric Traits: Parietal foramina, L. double hypoglossal canal. Pathology: OP of one upper thoracic vertebra with possible aseptic necrosis of lower border. Calcified ligaments R. patella.

Sk. 4853Child, Age: c.14Condition: PoorVery fragmentary and flaky skeleton and skull.Determination of age: Tooth eruption and long bone lengths.Teeth:U 7 6 5 4 3 2 1U 7 6 5 4 3 2 11 2 3 4 5 6 7 UU 7 6 5 4 3 2 /U 7 6 5 4 3 2 //// 4 5 6 7 UCalculus: NoneHypoplasia: NoneResorption: NoneAttrition Scores:- 2 - 3 - 2 + 2 + 2 + 2 - 3 - 3 - 2 - 2 + 2 + 2 + 3 - 2 - -- 2 + 3 - 2 + 2 + - - - 2 - 2 - 3 - 2 - -Non-Metric Traits: Lambdoid wormians.Sk. 4946Child, Age: c.3-4

Condition: Fair Fragmentary skull, arms and femora. Determination of age: Tooth eruption. Teeth: - - U e d - UU /b/d e U - -- - U e d / / / //d e U - -

Calculus: None Hypoplasia: None Resorption: None Non-Metric Traits: Lambdoid wormians.

Pathology: Cross-section of L. femur shows thickening anterior shaft with layer of new bone outside cortex, widening of lower half of shaft, enlargement of medullary cavity. Medium cribra orbitalia both sides. Porotic hyperostosis on both parietals with some labyrinthian lesions. Frontal also affected. Crosssection of parietals shows intact inner table, enlarged diploe and lack of outer table. The unerupted M1s are stained blue along the growth lines, probably due to enamel growth defect. See Path. section.

Sk. 4956 Child, Age: Newborn

Condition: Poor

A few fragments of skull, shoulders, L. humerus, ilia, femora and R. tibia. Determination of age: Tooth calcification, long bone length.

Teeth:

Calculus: None Hypoplasia: None Resorption: None

<u>Sk. 9315</u> Child, Age: c.15-18

Condition: Poor-Fair

Most of skeleton and skull from knees upwards.

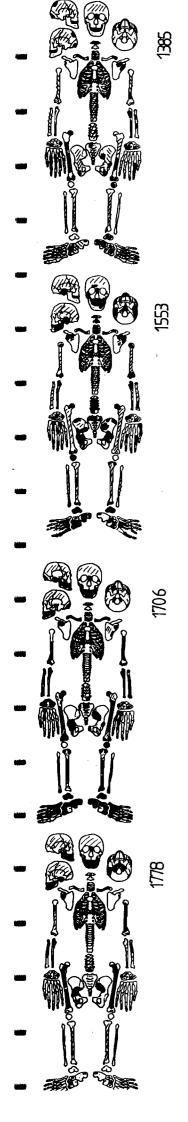
Determination of age: Acetabulum not united, tooth wear slight.

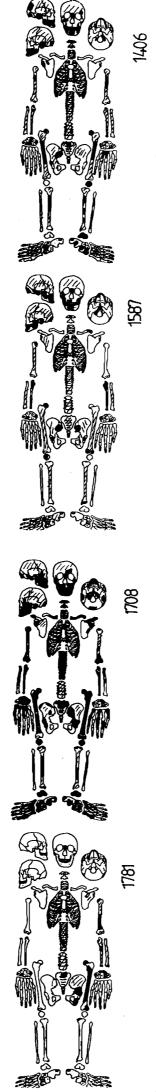
Teeth:

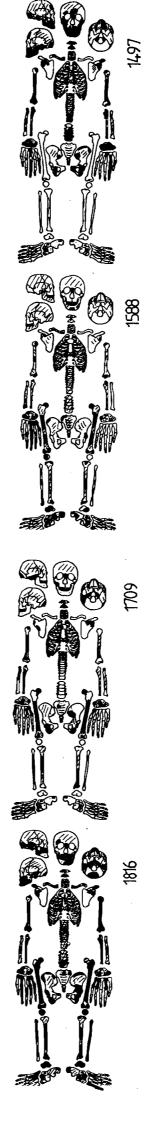
- 765/321 123456 - -U7654321 /234567U Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: - 2+32+- 22+3-2+2+2+223 - -

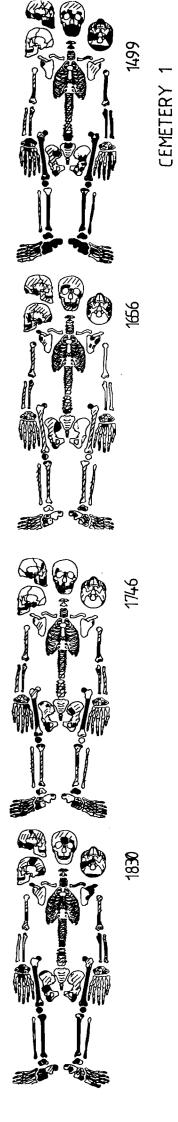
- 2 3 2 2 2 + 2 + 3 - 2 + 2 + 2 2 3 2 -

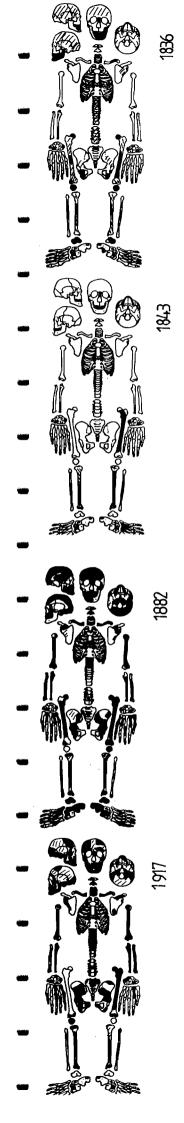
Extra bone: Talus (bagged with mandible), fragment of tibial epiphysis (with scapula), 2 metatarsals, 2 frags of another L. ulna.

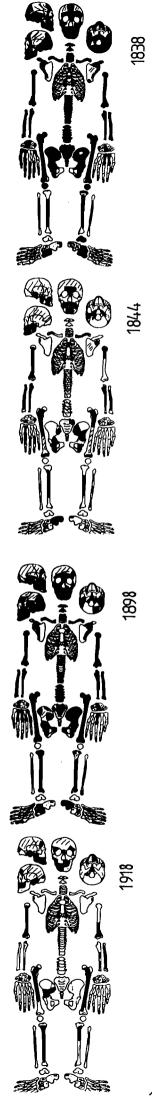


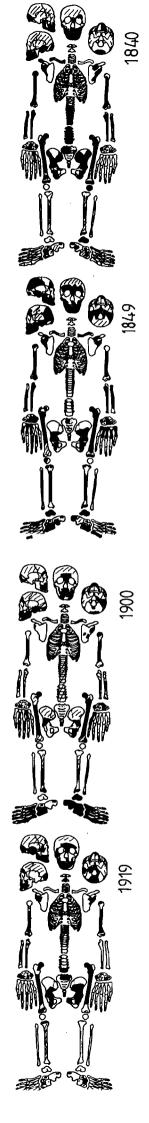


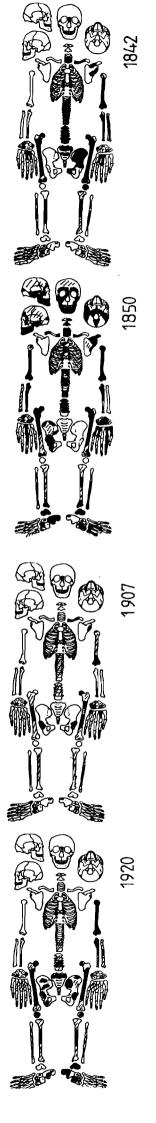


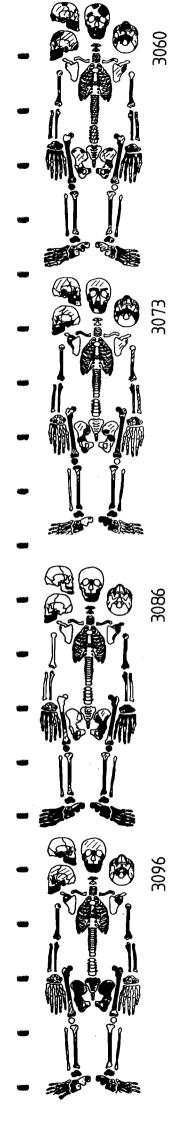


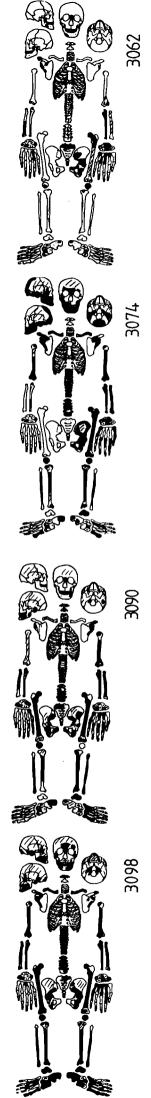


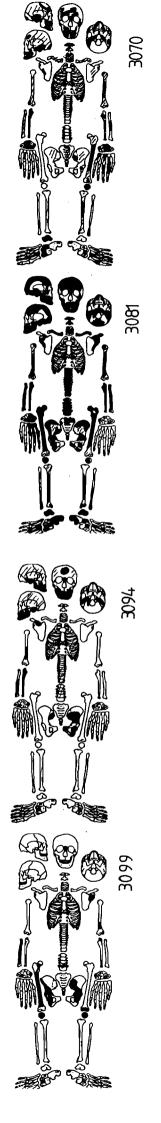


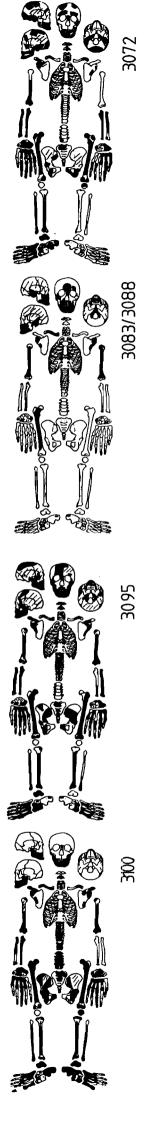


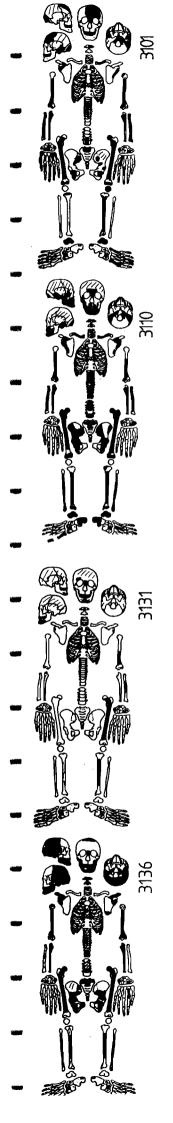


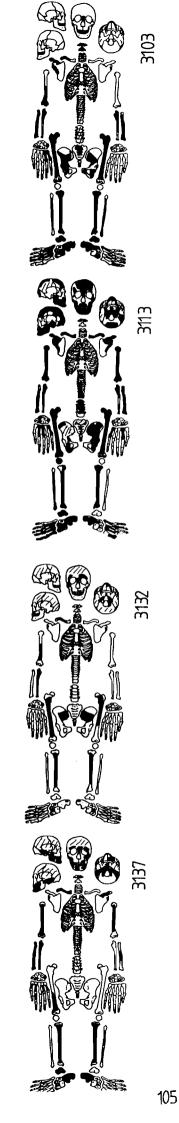


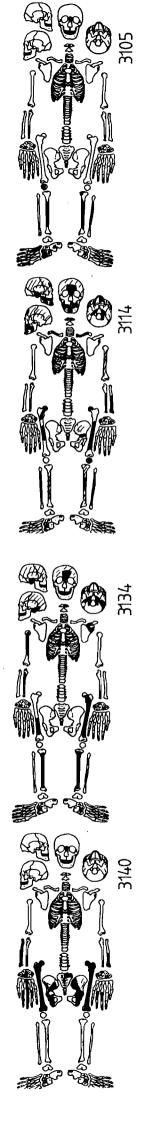


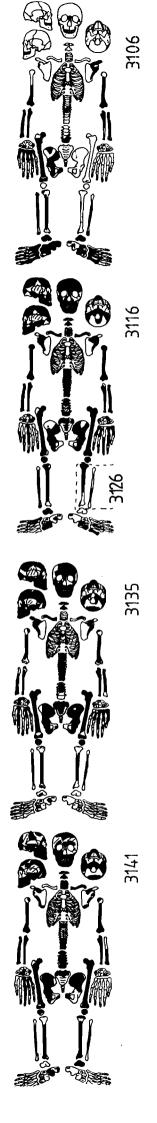


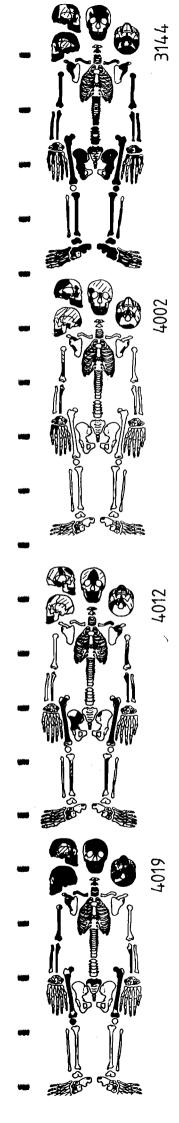


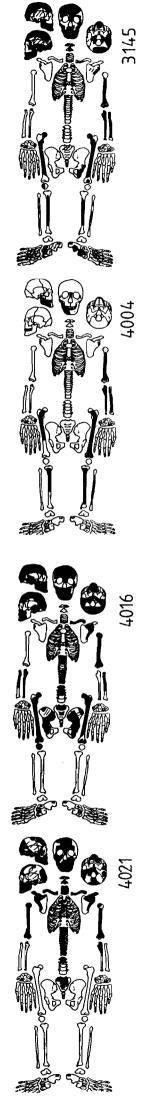


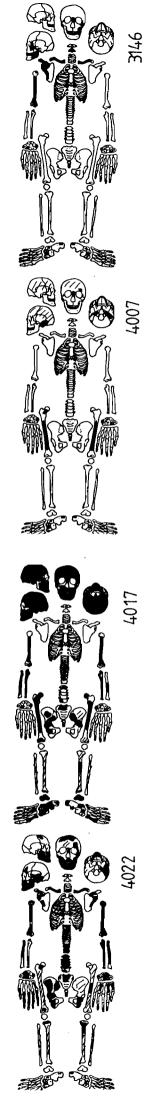


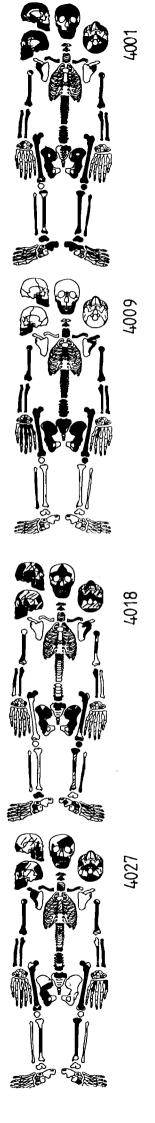


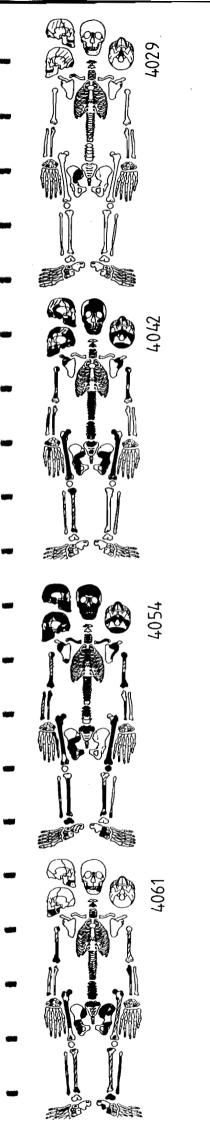


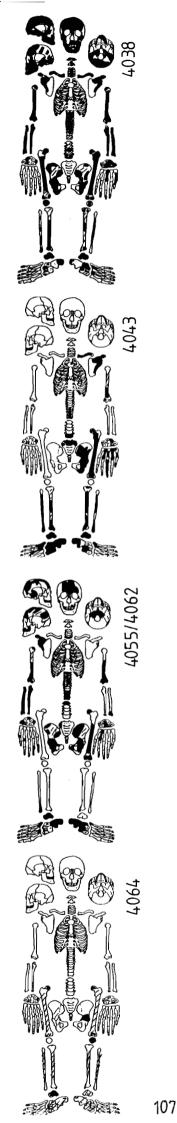


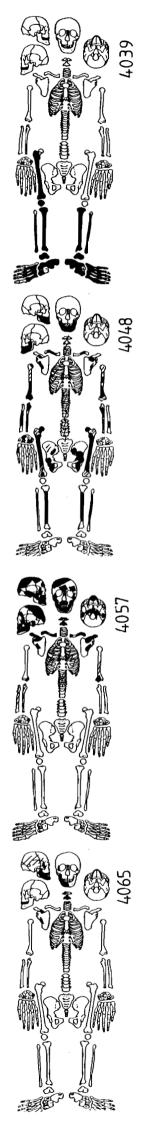


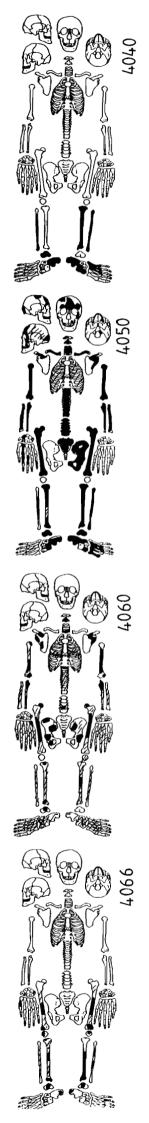


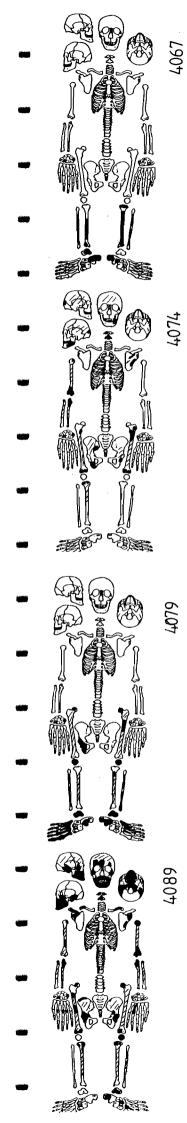


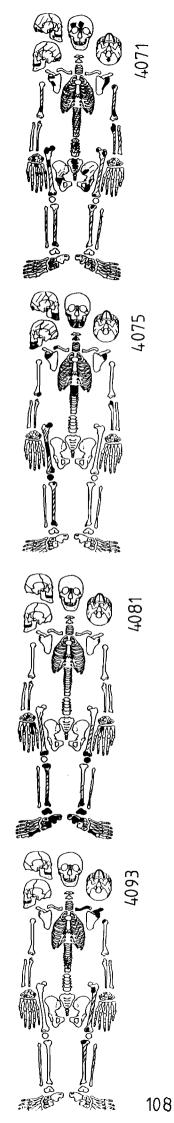


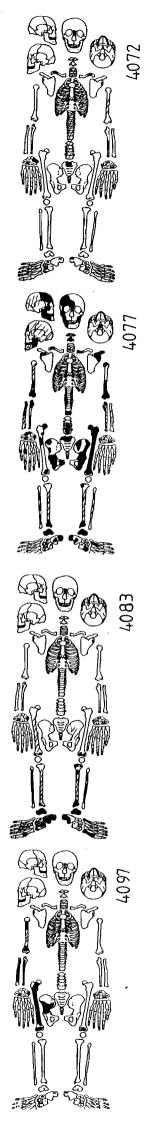


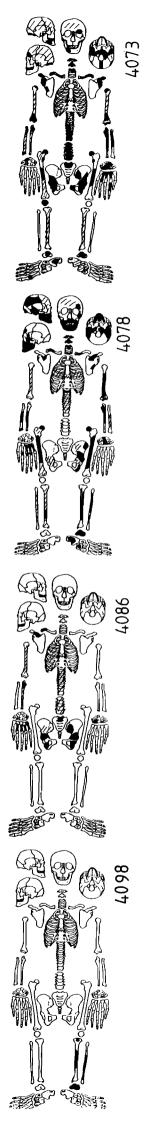


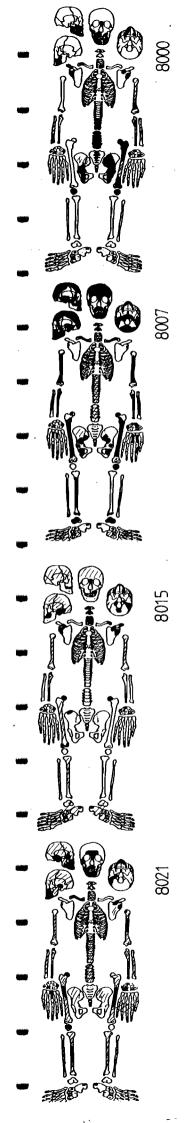


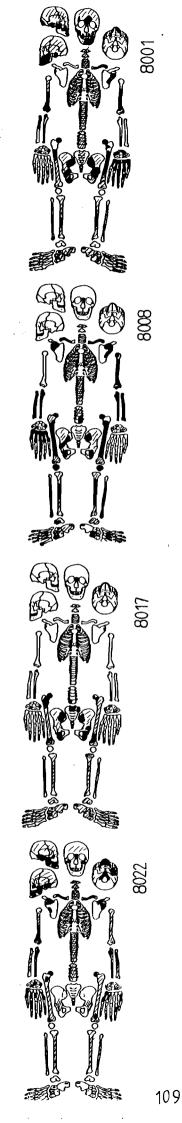


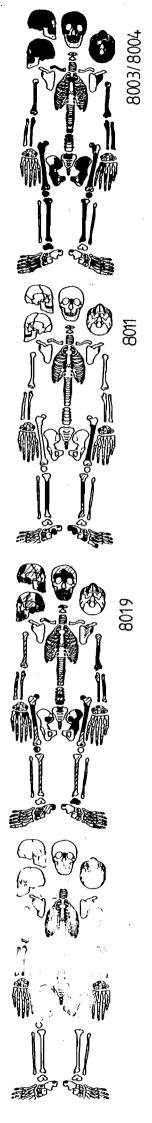


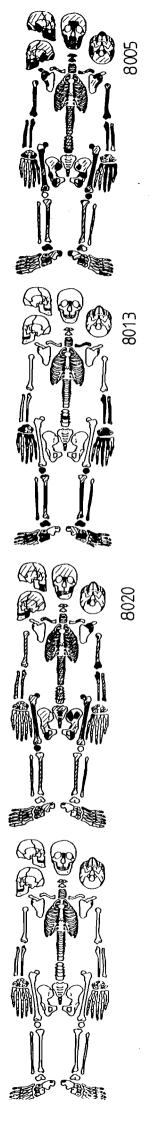


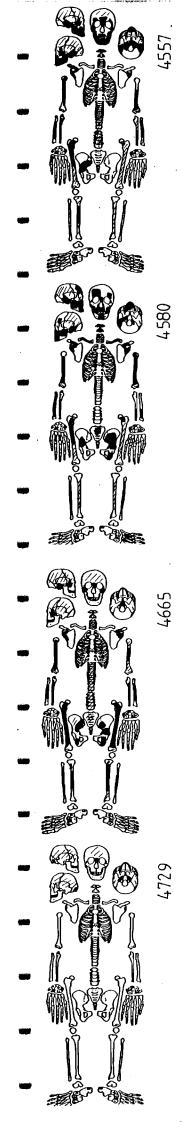


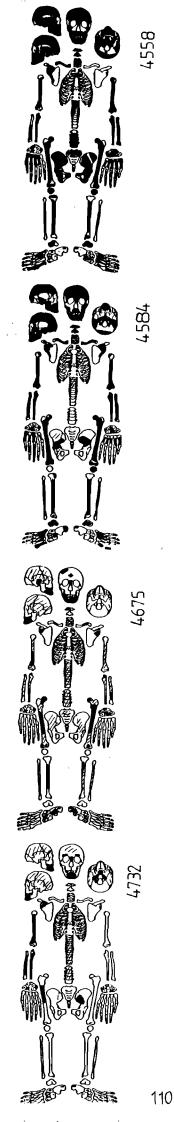


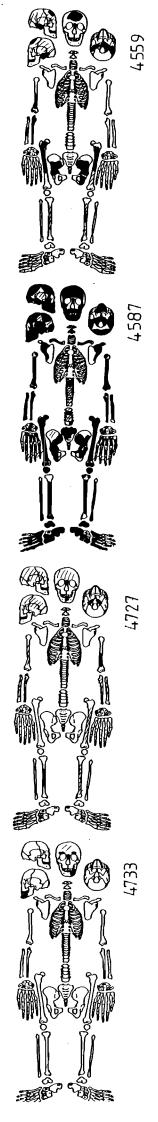


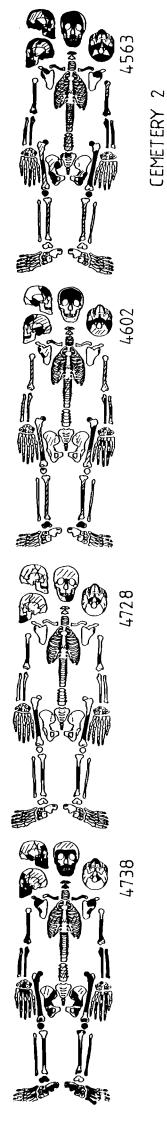


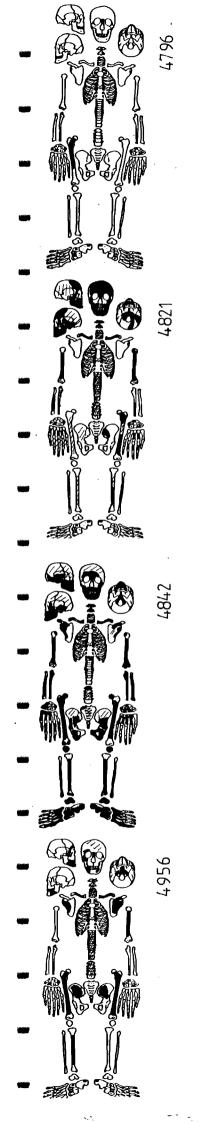


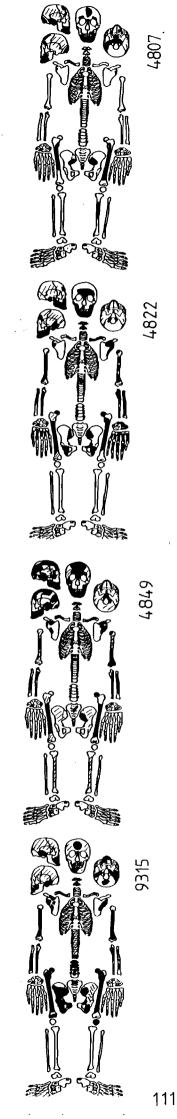


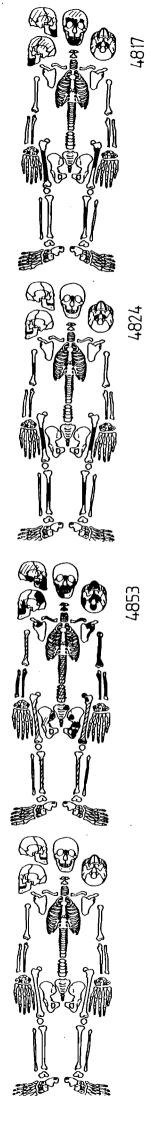


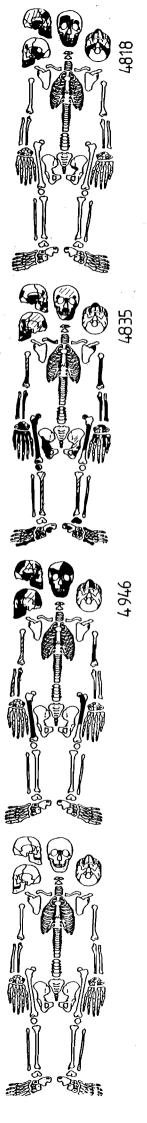












CATALOGUE OF DISARTICULATED REMAINS

Cemetery 1

Possible associations with articulated skeletons and other disarticulated remains (numbers in italics) are recorded in brackets beside the context number.

No. 0554/0556

Frags of femora and tibiae of one ?female, bones in very poor condition.

No. 1485 (1498? 3062?)

Mainly small fragments (7 innominates, including 1 juvenile and 1 with preauricular sulcus; pair adult tali, frags of other foot and hand bones; various frags verts, mainly adult lumbar; frags of 1 adult L. scapula; medium L. humerus shaft; 2 proximal frags ulnae, juvenile R. and adult L.; distal end adult ulna; 2 patellae; frags 3 tibiae, 2 L. and 1 R.; various frags of femora, including 1 R. sub-adult and 1 L. juvenile, 2+ adults; frags fibula; various rib frags, 3 bags misc small frags).

No. 1495

Very fragmented skull. Small mastoids and occipital. Lambdoid unfused. A few teeth in very poor condition, very worn (molars 5++). Some calculus.

No. 1496

Small frags of adult skull and mandible. Mastoid medium, mandible gracile. ?Female, 25-35?

Teeth:

U765//21 1-//5678

Calculus: Medium Hypoplasia: Slight Resorption: None

Attrition Scores:

-3+4+4 -455 --34+3+2+

No. 1498 (Rest of body with 1528? and 1485?)

Rather thick skull (cortices seem normal) with smooth glabella and small mastoids. Fragmentary. ?Female, 25-35?

Teeth:

-6//---/678765432112345678 Calculus: Slight Hypoplasia: Slight Resorption: Slight Attrition Scores: -4+---53

2-3+4+2244+5 54+4+2+2+53+2-

No. 1528 (Possibly some of 1497, and 14983)

2 frags femoral condyles and 1 shaft frag. Frags of a pair of tibiae and one or more others. Frags of 3 ulnae (1 pair?, and 1 R. with OP of proximal medial facet). 4 frags of fibulae. 2 L. ischia and 1 frag acetabulum, all large. Frags of 1 or 2 small scapulae. Small frags of vertebrae including an axis and some upper thoracics. 2 calcaneii, hallucial MT, navicular, finger phalanx, frags of ribs and misc small frags.

No. 1554

Fragments of adult skull(s). Unsexed, 35-45? Teeth: B

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

17654 --- --- 7/

Attrition Scores:

No. 1555

Frags of ?sub-adult skull and some fragments of atlas, axis and other vertebrae. Smooth glabella, mastoids quite large. 12-18 years.

Teeth:

- 765432 - - 23/567U U76543211234567 / Most crowns broken off post-mortem.

No. 1556

Frags of adult skull, T1 and scapula. Glabella medium-large. Wormian bone at bregma?

Teeth:

87654/// ////56/8

Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores:

No. 1727

Frags of adult skull, vertebrae, scapula, foot bones. Unsexed, 35-45? Teeth:

-7----/4/X/-

Attrition Scores:

No. 1747 (1748/17493)

Some skull and mandible frags, teeth very poor. Unsexed, 35-45? Teeth:

- - - 43 - - - 4 - - - - 4 - 76543 - - 1 - 34 - - 7 -Attrition Scores: - - - - 45 - - - - 4 - - - -- 456-45 - - ? - 54 - - 4 -

No. 1748 (*1747/17493*) Frags of adult skull, no teeth. Unsexable.

No. 1749 (1747/17483)

Most of skull in fragments, 4 teeth in poor condition (canine and 3 premotars). Small mastoid, occipital crest robust. Skull fairly thick (cortices normal).

No. 1750

Large fragmented femur, 2 very frag humeri, various rib frags. All adult.

No. 1774 (Some = 1781?)

Frags large R. ulna, small frags of 2? femora (medium and large), frags 2 large L. tibiae, small frags sacrum and innominates, small frags of vertebrae and ribs, various carpals, MCs, phalanges and head of hallucial MT, 1 bag misc small frags.

<u>No. 1779</u> (3086?)

Frags of a sub-adult: ?R. innominate, frags femur (head just fusing), S1 and S3 sacral segments, pair scapulae, R. radius, R. tibia?

Other misc frags: adult R. innominate, distal half small adult L. humerus, frags adult R. humerus, frag small juvenile distal humerus, most of medium R. humerus, frags T and C vertebrae of adult, juvenile axis and frag of L vertebra, frags of pair of adult ulnae, small frags of various ulnae and radii, adult ribs, frags of pelvis, tarsals and finger phalanges, small frag of adult maxilla (L. $/2 \times 45 \times -,$ old?) and small frag juvenile mandible (R. -/6///--, c.11?).

No. 1782

Two adult mandibles, one gracile and one robust. Mandible 1: 8765432112345678Calculus: Slight Hypoplasia: Slight Resorption: None Attrition Scores: 2-3-3+3-3-222+2+2+23-3-3+3-2-Mandible 2: //XX///XX37/67/B

Attrition not assessable. All remaining sockets very shallow, so PM loss may actually be AM. Possible infection around L. molars, pitting and new bone.

Femora: 1 pair gracile, 1 L. of similar size, large L., medium-large R., sub-adult, frag distal end large R.

Tiblae: small L., ?pair with graining on medial surface, frag L. shaft, small R. shaft. Flbutae: 6 flbulae, all fairly gracile.

Humeri: 3 L., one with septal aperture.

Radii: 1 pair gracile, 2 R. small and large, distal half of L.

Ulnae: 2 small L., 3 R. (one large).

Other: frags of 3 adult sacra, pair of ?female innominates, frags of 2+ scapulae, various hand and foot bones, R. & L. patellae, most of one adult spine and at least one L vertebra of another individual, frags of 2 clavicles and complete R. clavicle, bag of adult rib frags.

Juvenile: L. humerus, R. femur, L. ilium, calcaneus, frags skull and mandible (--/d////-----) c.18m.

Misc around 1900: Frags of sacrum, tibia, fibula, juvenile ?radius.

No. 1831

Most of a fairly thin adult skull. Small mastoids, medium glabella. ?Female, 25-35? Teeth:

////43 - - //3456//

Calculus: None Hypoplasia: Slight Resorption: None Attrition Scores:

.

No. 1832

Frags of skull, atlas and axis. No teeth. Large glabella and medium mastoids.

No. 1837 (1843, and possibly 1846/18473)

Frags of juvenile skull and axis. 9-11 years.

3 teeth: lower R. canine, upper premolar and upper first molar. All have severe hypoplasia, the canine being particularly badly affected (c.6mm from neck anteriorly, c.5mm from tip, and 3 strips lower down near root which correspond with those on the premolar, and one deep groove just below cusps of M1). Carabelli's cusp on M1.

<u>No. 1839</u> (1842?)

Frags of juvenile skull (condylar epiphyses unfused) c.12-15 years, some adult foot bones, vertebral frags and rib frags, mandible frags.

Teeth:

U76//// ----6--

Calculus: None Hypoplasia: Slight Resorption: None Attrition Scores:

- 1 3 - - - - - - - 4 - -

No. 1846 (18373)

Very small frags, recorded as skull but may be pelvis?

Frags of juvenile skull.

No. 1848

Frags of small L. femur shaft of adult, proximal humeral epiphysis, vertebral frags and misc frags.

<u>No. 1858</u> (1857?) Small frags of ?juvenile skuli.

<u>No. 1859</u> (1907?)

Frags of adult skull with small mastoid and glabella, and fairly robust mandible. Teeth:

/765//// ////678

C?

Calculus: Medium Hypoplasia: None Resorption: None Attrition Scores:

- 45+5+---- 6-4+2-

Extra teeth: ?juvenile upper L. M2, 2 lower premolars, canine, 3 lower molars.

No. 1861 (1843?, 1860?)

Pair of small gracile femora, frag juvenile R. ilium, most of an adult skull (mediumlarge glabella, medium mastoids, fairly smooth occipital. Lambdoid wormians.), a few frags of juv/infant skull and small frag adult distal femoral condyle. Teeth:

--- 5//// /// 4567/

.

Calculus: Slight Hypoplasia: None Resorption: None Attrition Scores:

- - 3 - - - - 234+2+-

No. 1862

Frag skull and mandible of a child, c.3 years, and one rib. Teeth:

---ed---///de-----/edc--///deU--Calculus: None Hypoplasia: None Resorption: None

No. 1863 (1919?, 1920?)

Femora: large R., most of L., most of another R., juvenile L., various frags including unfused epiphyses of a different juvenile, frag of small shaft, 1 head and frag of condyle. No pairs.

Tibiae: large L. with some graining of medial surface of shaft, part of R. which may belong with L., proximal half L., pair distal halves small adult tibiae.

Fibulae: complete L., frags of 3-4 others.

Humeri: frags of 3 (distal halves R. and L., not a pair, and small frags large hum.) Radii: 2 R., and frags 2 L., no pairs.

Ulnae: Large L., large R., frags of R. & L., no pairs.

Other: frags of various adult pelves, 4 R. and 2 L. scapulae, 1 pair and 3 R. clavicles, frags of 1+ sternum, 1 large pair patellae, 3 small L. and 1 small R. patellae, various adult vertebrae (mostly from 1 ?male), various adult ribs, 2 L. tali, R. & L. calcaneii, various MTs and MCs, tarsals and carpals, misc frags. Infant and Juvenile bones: shaft R. femur (c.6 years), smaller femur shaft, 3 tibia shafts, 4 humeri (c.3+ years?, 2 R. and 2 L.), small frag clavicle, frag S1 sacral segment, various ribs.

Crania: frags of 2+ juvenile skulls and 1+ adult skulls.

Jaws: 3 juvenile L. maxillae, 1 juvenile R. maxilla, 1 juvenile R. mandible, complete juvenile mandible, frag adult maxilla and various loose adult teeth. Teeth: C.

Juvenile 1: --///---//cd//--

-06ed/0/ /-/de6U-

All deciduous molars very worn. Hypoplasia on unerupted adult canines.
 These jaw sections probably belong to one individual, aged c.7 years.

Juvenile 2: --/ed/// ------

Very little wear. No hypoplasia. Frags probably belong to a 3-year-old. Juvenile 3 (L. maxilla): ///deO - -

Adult (L. maxilla): ---- 56/-

Also 3 upper and 2 lower molars, 1 upper premolar, 1 lower incisor.

No. 1864

Frag of juvenile/sub-adult mandible (c.12-15 years). Teeth:

--///// //--56/U

No. 1865

Frags L. innominate of sub-adult, distal femoral epiphysis, 2 frag femoral heads (1 large with ?OA of fovea), frags adult and juvenile ribs, 1 ?juvenile T vertebra, proximal R. radius, fibula shaft, talus, 1st MT, hallucial phalanx, 3 MTs, small cuboid, 2 toe phalanges, larger cuboid, 3 finger phalanges, sub-adult calcaneus, juvenile L. femur (c.5 years), juvenile R? humerus (c.3 years?), proximal half juvenile R. ulna (c.3?), juvenile R. tibia frag (n.b.-6m), frag older juvenile L. tibia and frag sub-adult L. tibia, pair adult ulnae, frags of 2-3 fibulae, frags clavicles, scapulae, sacrum, vertebrae, MTs, tarsal, pubis, distal half infant femur, frag innominate, frag adult mandibular R. condyle, 1 frag adult skull, 17 frags of 1? juvenile skull, frag juvenile mandible (c.3 years, - - - - / / U/- - -).

No. 1873

A few frags of ?juvenile skull.

<u>No. 1874</u> (1920?)

Frags of adult skull (parietals, occipital and L. malar), large mastoids, robust occipital, male? L. parietal foramen. 1 adult upper premolar. Frags of juvenile skull and mandible (no maxilla, only teeth). Teeth:

---- UUUU---- de6--

Slight hypoplasia on adult teeth.

A few frags of sub-adult skull.

No. 1876

A few frags of juvenile skull, c.2-7 years.

No. 1877 Very few small frags of infant skull.

<u>No. 1879</u>

Almost complete intact skull. Large glabella, mastoids, rough occipital, blunt orbits, large robust male, middle-aged? Parietal foramina both sides. L. occipital condyle is smaller than R. and is round rather than elongated oval in shape. Teeth:

A 87654321 12345678Calculus: Heavy Hypoplasia: None Resorption: None Attrition scores: 2-35+5+4+4+2+33243+5+6-4+2-

<u>No. 1881</u> (1918??) Frags of juvenile skull.

No. 1883

Almost intact skull in fair condition, and two frags of another skull. Fairly small and gracile, glabella small-medium, occipital smooth, orbits quite sharp, teeth small, large mastoid. Female, 18-25 years. Occipital sphenoid suture recently fused. Parietal foramen, epipteric bones both sides.

Teeth:

8765432/ ///45678

<u>No. 1885</u>

10 small frags of juvenile skull.

<u>No. 1886</u> Frags of juvenile skull, not complete. Parietal notch bone L.

<u>No. 1887</u>

Frags of sub-adult skull and maxilla (basi-occipital just fusing). Cribra orbitalia of both orbits.

Teeth (maxilla):

O / 6 / / / / / ------Extra adult R. lateral maxillary incisor.

<u>No. 1888</u>

R. arm, scapula, femora, R. lower leg and feet of one individual, sub-adult

(humerus head, femoral condyles, distal tibla all unfused).

Other bones: MTs, talus and calcaneus of adult male?, frag distal fibula, male fibula shaft with small exostosis, axis, frags 2 L vertebrae, all adult. Juvenile talus and calcaneus, distal femoral epiphysis, frags of long bone shafts, including R. femur, possibly all one infant (epiphysis may belong to a larger child).

<u>No. 1893</u>

Frags of skull and maxilla. Mastoids small-medium, large brow ridges, prominent occipital crests, ?male, middle-aged/old. Extra R. petrous temporal and mastoid, 4th MT.

Teeth: A A

?XXX543// ----//

Calculus: Medium Hypoplasia: None Resorption: Medium Attrition scores:

No. 1894

Frags juvenile skull and M1 (c.6 years), frags adult L. orbit, scapula, petrous temporal, L. mastoid, L. capitate and frags femoral condyle.

<u>No, 1899</u>

Frags infant frontal bone (Cribra orbitalia ++ R. and L.), frag infant L. ilium and sacrum, 2 frags animal bones.

<u>No. 1901</u>

Frags of adult skull, extremely thick (parietals 11-12mm thick on average) with normal cortex, suggesting expansion of the diploe. Affects frontal, parietals and occipital. The few frags of basal skull which remain also appear thicker than normal. Enlargement of granular pits above orbits endocranially, left more than R. Large ?abscess hole on endocranial surface of L. parietal next to sagittal suture 24mm anterior to parietal foramen, 8mm deep, 6x8mm, smooth edges. Occipital crest not particularly robust, mastoid medium, could be female despite size?

Other bones: frags adult ilium, R. greater multangular, L. hamate, L. 3rd cuneiform, and 3 frags of another, thin, skull.

No. 1902

Frags of infant skull, adult MT, MC and phalanx, lunate, frag radius shaft, rib frag, adult B. maxilla frag (- - X / / -).

No. 1911

Frags of adult mandible (25-35 years), 2 finger phalanges, frag C vertebra.

Teeth: 87654321 = 12345678Calculus: Medium Hypoplasia: None Resorption: Medium Attrition scores: 23+5+43+444 = 443334+43-

Large R. humerus and frag ?L. femur shaft.

No. 1922

A few frags ?juvenile skull and frags adult vertebra, femur, juvenile rib.

<u>No. 1923</u> (1920?)

L. humerus shaft, proximal half R. humerus (pair) of adult ?male, frag femoral head, medium L. talus, frags sub-adult L. clavicle, adult scapula, MT, juvenile rib.

No. 1926 (1842?)

Frags adult basi-occipital, orbit, L. pubis, mandible and loose teeth. Teeth (R. mandible): - /654/--Attrition scores: - 4+33---

Also juvenile canine, upper unerupted premolar, adult lower canine and incisor.

No. 1927

Frag juvenile mandible, c.8 years. Teeth: - U 6 e d / 2 / / / U - - - -Calculus: None Hypoplasia: None Resorption: None

No. 1928 (1860?)

Shaft of L. femur, female L. clavicle, various long bone frags, ?male hallucial MT, juvenile axis and MC.

No. 1929

Frag juvenile mandible (3-4 years?). Teeth: -----////deU--Calculus: None Hypoplasia: None Resorption: None Frag adult mandible. Teeth:

----X//7?

Attrition scores:

AA

No. 3063

R. humerus (slight lipping distally), large sub-adult R? ulna distal half, R. clavicle adult?, S3-4 sacral segments (unfused at bodies), a few rib frags, frag of subadult R. scapula, small L. patella, sub-adult L. femur, large proximal R. humerus epiphysis, distal frags sub-adult femur, frags 3 naviculae, various small frags long bones, frags of 3 T, 2 L and 1 C sub-adult vertebrae, juvenile R. ilium frag. Probably represents 1 sub-adult, 1 adult and 1 juvenile.

No. 3064

Proximal end large L. femur, frags large L? ulna, large R. navicular, frags femur and humerus heads, epiphysis of femoral greater trochanter of sub-adult, foot navicular, large L. patella, misc small frags.

No. 3065

Adult mandible, large but child-like appearance, 35-45 years. R. double mental foramen.

Teeth:

87654321 12345678

R

Calculus: Medium Hypoplasia: Medium Resorption: Slight Attrition Scores: 4 4+ 5+ 6- 5+ 5+ 5 5+ 5+ 5 5+ 5+ 5+ 5+ 3+ 3

No. 3066

Distal large R. humerus (partially fused) of sub-adult, proximal frag large R. ulna. adult R. clavicle frags, frag juvenile humerus, frags juvenile and adult scapulae. frag acetabulum, frag sacral S1, frag juvenile ilium, various misc small frags including vertebrae, ribs, phalanges.

Frag of ?adult cranium and frag of juvenile mandible (c.3-4 years). Teeth:

------//d//--

<u>No. 3067</u>

3 ?pairs of femora and 1 R. femur, all adult. R. tibia and frags of another. Bag containing 5 femoral heads and 3 condyle frags, one of which has a healed osteochondritic lesion (rough new bone in large pit). L. clavicle of young adult ?female (medial end just fused). Frag proximal humerus of juvenile, and frag distal tibia of similar size child. Gracile R. humerus with OA (pitting, eburnation and OP) of remaining part of head, and osteoporosis of shaft. 6 frags of fibulae. 4 frags of L. innominate with wide sciatic notch, OP around articular facet ot ilium. 2 juvenile/sub-adult L. ilia. Frag pubis. Frag large L. innominate. Various foot bones, small frags, ribs, vertebrae, 2 patellae, etc., mainly adult. L. and R. radii (not pair) and frag head L? radius which is badly deformed by OA (enlargement of head, pitting, eburnation, OP, sclerosis of neck), and distal frag of R. radius. Small L. humerus. Very frag adult humerus. Larger L. humerus with eroded surface.

3 frags adult skull and frag animal mandibular condyle, adult L. maxilla. Teeth:

//////-- and upper incisor which does not belong.

2 frags juvenile skull, juvenile petrous temporal, frag juvenile mandible (3-5 yrs). Teeth:

--- ed/// /-----

No. 3068

Frags of adult skull in poor condition, 18-25 years. Teeth: - 76///-- //-- 5-78

Calculus: Slight Hypoplasia: None Resorption: None Attrition scores:

- 2-4 - - - - - - - - - - - 2 - 2-1

Sub-adult L. radius, frags adult scapula, proximal femoral epiphysis, medial frag sub-adult clavicle, 1 T and 1 L vertebrae, 2 sub-adult MCs, various frags long bones etc. 1 frag juvenile skull and R. petrous temporal.

No. 3071

A few frags of juvenile skull.

No. 3075

Juvenile skull frags (c.3 years) and a few vertebral frags. Cribra orbitalia of L. orbit with fibre bone.

Teeth:

.

--Uedcba -b---U----Uedc// a/cde---

<u>No. 3076</u> (3086?)

Frags adult skull, smooth glabella, occipital and small mastoids. ?Female, 25-35? Teeth:

/76543// //3//67/

Calculus: Slight Hypoplasia: Slight Resorption: None Attrition scores: - 4 5 4+ 3 4 - - - 5 - - 5 4? -

<u>No. 3077</u> Frags of juvenile skull and maxilla. Teeth: --/ed/b------

No. 3078

Frag of large tibia shaft and proximal and distal frags, including unfused epiphysis. Various foot and hand bones, adult atlas, 2 T vertebrae, 1 L vertebra and S1 of sub-adult, L. patella, R. juvenile radius (c.3 yrs), L. pubis, various small frags long bones, ribs, etc.

Frags of juvenile skull and petrous temporals, including 1 frag which shows signs of porotic hyperostosis. Upper R. deciduous canine, both upper mesial incisors (not fully erupted), c.5-6 years.

<u>No. 3079</u> (3100?)

Frags of adult male skull (large occipital crest, mastoids), 25-35?. Lambdoid wormians.

Teeth:

8765/3-- - 2345678

Calculus: Medium Hypoplasia: None Resorption: None Attrition scores:

3 4 5 5 - 4 - - - 3 - 3 + 3 4 + 5 4 3

Pathology: There is a lesion on the R. side of the frontal bone (c.27x9mm) in the superior quarter of the bone. It is irregular with rounded edges and a deposit of bone at one end. There is pitting around and within it. Another lesion occurs almost at the middle of the L. parietal, but is unfortunately incomplete. It has

rounded edges, is deeper than the one on the frontal, is pitted inside and is 17mm long. Both parietals are pitted in the superior posterior quarters. The inner table is unaffected. Possible traumatic origin?

No. 3080

A few frags of juvenile cranium.

No. 3082 (Some of 3083/3088?)

Bag 1: various adult and sub-adult foot bones, rib frags, adult R. patella and juvenile L. patella, frag adult R. radius (OA on tuberosity?), frags R. and L. juvenile ulnae (c.13 yrs?), frag ?sub-adult fibula shaft, distal half infant L. humerus, frags infant femoral shafts (1 pair and 2 others, smaller and larger), frags juvenile fibula, juvenile L. clavicle, juvenile L. ilium, ischium and pubis (<10yrs) and smaller R. ilium, frag adult acetabulum, frags sub-adult vertebrae, various small frags of long bones.

Bag 2: Adult R. tibia shaft, shaft large L. humerus, complete adult R. tibia in poor condition, juvenile L. femur (c.12-13yrs), juvenile R. tibia shaft and frags of fibula (same as femur?), proximal frag juvenile L. femur, juvenile R. humerus (c.5-6 yrs), ?female sacrum, various frags of adult and sub-adult vertebrae, scapulae, pelvis, feet, etc.

Bag 3 (skulls): Frags of 1? juvenile skull, including orbit with medium cribra orbitalia (labyrinthian, porous bone), frag juvenile T vertebra, juvenile L. mandibular ramus, adult upper R. canine, juvenile upper molar.

No. 3084

Frags of juvenile skull (mostly front half), maxilla and mandible, c.6 years. Teeth:

- UOed//O O- - deOU-- UOed/// O//deOU-

Calculus: None Hypoplasia: None Resorption: None Carabelli's cusp of upper L. M1.

<u>No. 3085</u>

Frags of infant skull, c.2 years. Teeth:

--Uodoba -bod----

Calculus: None Hypoplasia: Gross Resorption: None Pathology: Some frags show slight porous lesions suggestive of porotic hyperostosis. The L. orbit shows marked cribra orbitalia with fibre bone (labyrinthian and porous). There are hypoplastic lesions in the occlusal surfaces of both lower first deciduous molars and the upper lateral incisor, which may also have been affected by caries as a result.

<u>No. 3087</u>

Adult R. femoral shaft and head, frag of adult L. tibia shaft with fibre bone growth over most of the shaft and especially the lateral surface, frag fibula also affected by periosteal reaction (some fibre bone but periosteum more involved with graining, pitting and new bone formation), L. tibia shaft of infant (12-18m), frags sub-adult L. ilium, adult acetabulum, various toot bones, ribs, long bone frags, L. petrous temporal of infant.

Old female?: L. humerus, frag L. ulna (osteoporotic, OP facets), pair scapulae (lipping at glenoids and acromion), pair femora, pair tibiae (periosteal reaction on medial surface of L.), L. fibula (graining and fibre bone especially on distal half), L. 2nd and 4th MCs.

?Sub-adult ?male: Shaft of humerus, L. patella, unfused femoral head, L. ilium, MC, 2 MTs.

Other: 3 upper T, 1 lower T and 1 L vertebrae (all OP), a few rib frags, small L. patella, R. radius, R. ilium, frag small femoral head, and various small frags including juvenile talus. Juvenile mandible, c.11 years.

Teeth:

//6UO/// /2O//6//

No. 3091 (30893)

Frags of adult skull and maxilla. Glabella medium, mastoid small, occipital crest fairly gracile. ?Female, old? Teeth:

A

A XXX5X/// //3/5X--

Calculus: None Hypoplasia: None Resorption: Heavy Attrition scores:

- - - 7 - - - - - - 6 - 7 - - -

No. 3092

Almost complete pair of innominates (?female) with lipping of the iliac crest dorsally at the widest part (lateral end) of the L. ilium, possibly traumatic? L. subadult tibial epiphyses, adult L. radius and R. ulna, ?adult fibula shaft, 2 frags juvenile L. humerus, 1 adult and 1 juvenile L vertebrae (adult, OP and Schmorl's node), sub-adult R. talus and calcaneus and other foot bones, juvenile MC, a few other small frags of juvenile and adult bones.

No. 3093

Frags of juvenile skull and L. mandibular ramus.

(3103?, 3106?) No. 3097/3102

1 R. and 3 L. clavicles (R. has OA medially with pitting and OP), 3 frags scapulae, ?female L. humerus, small L. radius, distal frags ?pair small ulnae, various rib frags, vertebrae, ?male L. innominate, frag acetabulum, frag pubis, R. 1st-4th MCs and L. 1st MC, R. 5th MC, R. navicular, phalanx, juvenile 1st MC, 3 MTs, navicular, 1st cuneiform, L. talus, shaft juvenile or female fibula (slight graining), shaft juvenile L. radius (c.8 yrs), shaft juvenile ?femur in poor condition, occipital condyle of infant, a few misc small frags.

Pair adult petrous temporals, 1 frag adult skull and frag adult mandible. Teeth:

11111111 111----A

(3108or 31093 No. 3104 A few frags adult skull and mandible, frag axis. Teeth:

<u>No. 3107</u>

4 frags adult T/L vertebrae, 1 C vertebra body and another frag C vertebra, adult ?L. fibula shaft, frag femoral condyle with large OPs around border, frags ribs, small frag acetabulum, distal frag ulna, 3 finger phalanges, 2 adult MTs, 1 L. 2nd MT ankylosed to lesser multangular which appears deformed (trauma?). 6 frags adult skull (1 possibly of animal?).

No. 3108/3109 (3104)

All in one bag. Frags of 2 adult skulls, neither is complete but there are duplicated parts (e.g. R. frontal orbit area). Frags of 2 maxillae. 35-45 and 45+. Maxilla 1:

A // 654U// // 34/X//Calculus: Heavy Hypoplasia: None Resorption: None Attrition scores: - 5+4+3----44----R. upper canine is impacted. Maxilla 2: AA - - / 43// // 345----Attrition scores: - 7 6 - - - 6 6 6----

No. 3111

Adult L vertebra with slight OP. trag male L. ilium, epiphysis of sub-adult femoral greater trochanter, frag adult MC, 2 frags animal bone. Frags of very robust mandible, 18-25 years.

Teeth:

8//54321 123456/8

Calculus: Slight Hypoplasia: None Resorption: None L. M3 is impacted, lies horizontally in the alveolus, but is erupted. Attrition scores: 2+-5 4+4 4 4+-4+4 4-3-3-3+-1

No. 3112

Shaft large adult L. femur, distal half adult R. ulna and midshaft frag of another, 2 small adult C vertebrae, frags rib, acetabulum, scapula, upper R. M2, and L. talus.

No. 3119

Adult L. radius, ?adult L. patella, lower T or L. vertebra, sub-adult S1, 3 frags adult scapula(e), 2 rib frags, 1 frag ?animal ?patella.

Large L. humerus (septal aperture?), L. scapula and small frag R., large R. ulna, large L. pubis, atlas, C vertebra, lower T vertebra with OP and aseptic necrosis of upper body, 2 small MCs and small R. capitate, large L. 3rd MC, small MT, frag calcaneus, various rib frags and other small misc frags.

Adult mandible, fairly robust, 25-35 years, and frag animal ?skull.

Teeth:

87654321 / 2345678

Calculus: None Hypoplasia: None Resorption: None Attrition scores:

2+ 3+ 5 4 4 4+ 4 4+ - - 4 4+ 3+ 3+ 4+ 3 2+

Also upper L. M1, unerupted, of child aged c.5 years.

<u>No. 3123</u> (3146?)

Sub-adult L. radius and frag L. clavicle. Adult L. radius shaft and R. ulna, both fairly gracile. 2 adult T vertebrae, frag adult ischium, adult 2nd R. MC, various rib frags and small frags.

Complete adult female skull and part mandible. Small glabella, sharp orbits, gracile mandible and occipital.

Teeth:

Calculus: Heavy Hypoplasia: None Resorption: None Attrition scores:

Pathology: Nasal aperture appears enlarged and the interior lateral margins of the nose appear to have been eroded ante-mortem with possible partial destruction of the anterior nasal spine, pitting and porosity. The mental foramina appear large. These symptoms may be indicative of facies leprosa, but with no other evidence available it is probably wise to view this as a tentative diagnosis. Frag of another mandible (- - - / 5 6 X ?), medium hypoplasia, slight attrition. 2 frags of juvenile skull.

<u>No. 3124</u> (3140?)

Intact male calvarium and frags of the rest of the skull and mandible. Large glabella, robust occipital crest, large mastoids, robust mandible. 35-45 years. Teeth:

----- X///56/? 8/X5/32/ //3//X78

00

Calculus: Heavy Hypoplasia: None Resorption: None Attrition scores:

4? - 5 - 5 4+ - - - 5 - - - 5+ 4?

A VEN

Frag of R. maxilla which does not appear to belong: --/5X///

<u>No, 3126</u>

Proximal section of L. tibia and frag of fibula (see 3116, articulated, for pathology),

2 T vertebrae with large OPs, R. and L. 2nd MCs, 3 MTs, L. talus, R. navicular, R. 1st cuneiform, distal frag large R. fibula, various rib frags.

<u>No. 3127</u> (3140?, 3146?, 4002?, 4004?)

17 bags of misc bones.

Bag 1: 1 pair femora and 1 B. femur, all very thin A-P compared to M-L. Linea asperae not at all prominent. The pair show a slight change in angle at approx a third down the shaft, but this only seems to affect the medial edge, giving the appearance of a smooth lump. There is no break in the periosteum. Bag 2: Small L. femur with lipping of fovea.

Bag 3: Proximal frag L. femur shaft, lesser trochanter not fully fused, and R. distal epiphysis, large sub-adult femur, frags of 2 other femoral condyles.

Bag 4: R. tibia and fibula, and 2 frags of another fibula. Tibia has slight lump (c.26x15mm) approx two-thirds down shaft on dorsal surface, periosteum unbroken, cause unknown.

Bag 5: Pair of humeri, R. humerus and sub-adult L.

Bag 6: Frag shafts of 2 adult humeri (R. & L.) and frag ulna shaft.

Bag 7: Pair of ulnae of old? individual and ?sub-adult frag L. ulna.

Bag 8: Pair of juvenile femora, c.3-4 years.

Bag 9: Pair of adult clavicles with OA laterally, shaft frag of R., R. sub-adult clavicle and medial frag of L.

Bag 10: Frags of scapulae, pair sub-adult, pair large adult, L. and R. of 2 old adults, small R., frags of acromion etc.

Bag 11: Frags of innominates, ?pair of adult female, L. ilium of sub-adult, ischium of smaller child, pair juvenile ilia, frag juvenile L., all probably infant-2yrs.

Bag 12: Frags of 5-6 sacra (4 adult, 1-2 sub-adult).

Bag 13: Various vertebrae of juvenile, sub-adult and adults, mostly lumbar.

Bag 14: Distal frag adult L. radius, frag sternum, 2 R. patellae, proximal frag infant R. femur.

Bag 15: 6 MTs, 3 MCs and 1 R. talus, all adult.

Bag 16: Frags of various ribs.

Bag 17: Bag of misc small frags including pelves, scapulae, skull, long bones and some animal.

Frags of 3 adult mandibles and one adult maxilla, R. mandibular condyle, 2 frags adult skull and 4 frags juvenile skull.

Mandible 1:

XXX///21 ////5/X?

AAAA AA

Attrition scores:

Periodontal disease. Robust. Double mental foramen L.

Mandible 2:

/X6/43// /2/456/8

A? Calculus: Slight Hypoplasia: Medium Resorption: None?

Gracile, but large.

Mandible 3:

U76/4-// /23/----

Calculus: None Hypoplasia: Medium (pitted) Resorption: None Attrition scores:

Also one upper R. M3 which does not fit.

<u>No. 3128</u>

Pair gracile adult clavicles, large L. fibula shaft, frag of adult fibula shaft, frag diseased fibula shaft (similar to that in 3126/3116), sub-adult L. tibia shaft with osteochondroma of medial proximal border, frag shaft R. tibia of ?sub-adult, adult L, T and C vertebrae (one of each) and juvenile frag L vertebra, ?adult rib frags, 3 L. calcaneii, large L. talus, sub-adult R. 1st MT, adult L. 1st MT, adult L. cuboid and navicular, 2 sub-adult MTs, ?adult 5th MT, toe phalanx, juvenile MC, small L. 5th MC and phalanx, frags adult sacral spinous processes, various small frags including L. patella, scapula, long bones.

Juvenile bones: pair femora shafts, L. tibia, frag L. ilium, frag L. scapula, smaller R. femur and tibia, frags of ribs and vertebral body. Represents 2 infants? 3 frags infant skull including petrous temporal, frags infant mandible (c.12m). Teeth:

---uou// /--/u---

Almost complete adult ?female mandible.

Teeth:

X////// X///6/? Attrition on M1 = 5+

Frag of adult mandible, crowding of anterior teeth, L. canine overlaps lateral incisor.

Teeth:

Calculus: Slight Hypoplasia: Medium Resorption: None Attrition scores:

No. 3133

A few frags of sub-adult skull (occipital sphenoid unfused), mostly frontal, parietals and temporals. Cribra orbitalia of both orbits.

Teeth:

-76543// //34/67-

Calculus: None Hypoplasia: Gross Resorption: None Attrition scores: - 2-3 2 2-- - - - - - - - 2 2-- 3-2--

No. 3142 (4039 or 4040?)

Frags of adult cranium, probably complete. Large brow ridges and mastoids. Male, 18-25 years.

Teeth:

-76543// //34567/

Calculus: Slight Hypoplasia: Medium Resorption: None

Attrition scores:

- 2 3 2+2+3-- - - - 3 3 2+3+3--

No. 3143 (3140?, 4039?)

2 L. and 2 R. clavicles (2 sub-adult males, adult male and ?female), frags of 4+ adult scapulae, R. & L. humeri of similar size but probably not a pair (septal aperture R. only), 2 frags humerus heads, large R. ulna shaft, small frag infant R. ulna, frags of various adult vertebrae, adult sternum and manubrium, frag male R. ilium, frag L. ischium, frags of 2 sacra (sub-adult and juvenile?), frags 2 adult L. tibulae, frags of tibia, pair of tali, 2 L. calcaneii, frag R. calcaneus, 7 MCs, 6 MTs, 1 finger phalanx, various rib frags, misc small pieces of long bone etc.

No. 3147

Bones which may belong to 3145: R. radius and ulna frags, shaft R. humerus, 2 T vertebrae and T12-L1, frag C vertebra?, R. talus, MCs and MTs. Mostly osteoporotic with degenerative changes.

Other bones: female R. ilium and ischium (possibly a pair with L. in 3148), proximal frag sub-adult L. humerus, frags L. & R. ulnae and proximal L. radius, 3 C, 2 L and 1 juvenile T vertebrae.

Frag of adult R. parietal.

No. 3148

Frags female L. innominate (see 3147), 3 publis frags, L. tibia, 2 proximal tibial epiphyses, frag shaft sub-adult R. femur, distal frag ulna, 4 fibula frags, L. clavicle shaft, various sub-adult/juvenile vertebrae, ?pair of patella, R. & L. tali, L. 1st cuneiform, frag L. calcaneus, various small frags, MCs, MTs, ribs, etc. Frag of adult parietal, frag of juvenile skull, upper L. mesial incisor with medium hypoplasia, frag animal ?pelvis.

No. 3149

Pair sub-adult tibiae and distal frag sub-adult R. femur, R. patella, 3 rib frags, 1st and 3rd MCs and phalanx.

<u>No. 4003</u>

R. scapula, distal R. humerus, R. ulna, 2 C vertebrae, rib frags, 1st and 2nd MCs, navicular, frag sacrum, frags adult skull (and 2 small frags infani skull). All one individual? 35-45 years? Very poor. Teeth:

A

---- /23456/-

Calculus: None Hypolasia: Slight Resorption: Heavy Attrition scores:

- - - - - - 3+5557--

Pathology: Pitting of superior part of both parietals. Lesion on frontal bone on central line c.25mm below bregma, irregular rounded shape with new bone around edge and central depression (all irregular and pitted), c.7mm diameter. Another lesion on R. side frontal c.35mm above orbit, irregular ovoid depression with pitted floor and slight rounded growth around edges (13x7mm). Another very slight rounded depression, which may be a pathological lesion, lies between the first two and has a pitted floor. The last two could be fractures?

Gracile R. femur, adult L. tibia shaft (Sk. 3072?), sub-adult R. tibia shaft, juvenile L. tibia shaft, small distal frag large tibia, frags 2 fibulae shafts, sternum, ?pair humeri (?septal aperture L.), juvenile R. femur and necks of smaller juvenile R. and L., pair of ulnae, frags 2 scapulae, frags adult sacrum, pair calcaneli, L. talus, various hand and foot bones, frags ribs, long bones, clavicle, juvenile femur and tibia, vertebrae.

"Articulated infant": this group of bones actually contains the remains of at least 6 infants - pair of femora (femoral necks listed above belong with these), slightly smaller femur shaft, 2 smaller R. femurs of similar size, 2 L. femurs of similar size (<6m), frags 2 ulnae and radius (largest child?), frag small R. humerus (<6m), 4 rib frags, vertebral body, 2 R. ilia (larger child, and tiny infant), very small frags of infant skull and 4 teeth (2 unerupted molars and 2 partly erupted incisors). Frags of 1+ adult and 1+ juvenile skulls, complete adult mandible (35-45?), juvenile maxilla (6-7 yrs), 2 juvenile mandible frags (9-12m and 12m), unerupted permanent mandibular M1 (c.3-4 yrs).

Adult mandible:

-7X543/////45X78 A?

Calculus: Medium Hypoplasia: None Resorption: None Attrition scores:

```
- 4+ - 4+ 4 5 - - - - - 4 4 - 5 3
Juvenile maxilla:
- U 6 e d / / - - - / d e 6 / -
Juvenile mandible 1:
- - - - - - - - - - - -
Juvenile mandible 2:
```

<u>No. 4006</u>

A few frags of juvenile skull. Cribra orbitalia of L. orbit (R. not present).

No. 4010

Large R. radius, smaller L. and distal half of L., shaft frags of slightly osteoporotic L. ulna and radius, distal half large L. tibia, proximal frag juvenile tibia, large R. clavicle, frags pair ischia and pubes, juvenile ischium, juvenile C vertebrae, adult L and T vertebrae, 2nd and 3rd MCs, frags scapula, sacrum, sternum, ribs, juvenile L. femur (<6m) and frag tibia, distal half juvenile L. radius (c.5-6 yrs). 6 frags ?adult skull, juvenile mandible (7-8 yrs).

Teeth:

-U6edc21 12/de6U-

Calculus: Slight Hypoplasia: None Resorption: None

No. 4011 (4018/4019?, 4021/4029?)

Female: both innominates, both femora, both humeri?, both tibiae?, R. fibula and R. clavicle? All one individual?

?Male: pair femora, pair humeri, pair innominates, may belong together. Other: L. femoral distal lateral condyle with healed osteochondritic pit (some sclerosis at central border and secondary OA dorsally of pit), pair large tibiae and R. tibia of similar size, distal frag R. fibula ?male, 2 frags of L. & R. tibia shafts, gracile R. femur shaft (?ossifying haematoma on dorsal lower third, medial side), 3 femur shaft frags, distal haif small R. humerus, smaller distal half L. humerus with septal aperture, frags of large ulna and radius pairs, R. & L. ulnae, R. & L radii, various small frags of radius and ulna, distal R. radius with OA of articular facet, various frags of ilium and ischium, frags 3 R. and 1 L. clavicles, sub-adult clavicle, frags of 4+ R. and 3+ L. scapulae, frags of 2 sternums, large bag of vertebrae, bag of ribs, bag of various small frags including juvenile frontal, bag of hand and foot bones.

Juvenile bones: frag L. ilium and ischium, pair ilium frags, larger ischium and frag sacral ala, pair femoral necks, sub-adult L. femur and patella, 3 L. humeri, pair infant femoral shafts, larger infant L. femur, pair tibia (12-18m) and fibula shaft, frag juvenile ulna (c.12m), proximal frag sub-adult fibula.

Crania: frags of 1+ adult, 1+ juvenile and 1+ infant skulls.

Adult L. maxilla frag: //////--

Large robust adult mandible:

XXX//////7X Attrition on M2 = 4

Calculus: Slight Hypoplasia: None Resorption: Heavy

Gracile adult mandible:

XXXXXO/X //U//X--

Adult L. and R. mandibular rami (not a pair), R. frag with M2 in position.

Frag sub-adult mandible: U76/---

?Adult R. maxilla: U765//// PM2 rotated by 180 to lie longways in jaw. Juvenile maxilla frags (c.8 yrs):

--6e/---/0/de---

Juvenile mandible frags (c.2 yrs):

2 loose premolars, one unerupted.

No. 4013/4014

Juvenile frontal, parietals (4014) and occipital (4013).

No. 4015

A

Intact adult calvarium and most of the rest of the skull in frags. ?Male, 35-45? Teeth:

- / X 5 4 3 2 / / X / / 5 X X -Attrition scores: - - 6-5+5 5 - - - - 6-- - -

No. 4020 (4067?) Frags of a large robust adult skull. Male, 35-45 years.

Teeth:

UX6543// //345/--

Calculus: Medium Hypoplasia: Slight Resorption: None Attrition scores:

- - 5 4 3+ 4+ - - - 4+ 3+ 4 - - -

No. 4023 (4067?)

2 frags of an adult occipital (smooth crest, ?female).

L. half of face, a few frags of sub-adult skull. Metopic. Teeth:

----/////67U

Calculus: Slight Hypoplasia: None Resorption: None

No. 4026

Frags of gracile adult skull. Small mastoids and glabella.

<u>No. 4028</u> (4018/4019?, 4021/4029?)

Pair of adult tibiae (graining medially L.), large femur shaft (pair with large one in 4011), proximal frag large R. femur shaft, most of medium-large R. femur, juvenile femur shaft, 2 juvenile distal tibia frags and proximal R. femur frag, frag infant humerus, proximal frag very large L. ulna, frag smaller L. ulna and frag juvenile R. ulna, 3 L and 2 C vertebrae, frags of adult ilium, L. pubis, L. ischium with craggy tuberosity (ischial bursitis and OA?), bag of ribs, misc bags including proximal frag shaft small R. femur, 2 patellae, frags of adult long bones, proximal frag large L. femur, proximal frag R. tibia and 2 others in more fragmentary condition, distal frags of large pair of humeri, frag shaft R. humerus, frags of large L. radius, frag scapula, L. ischium and acetabulum, finger and hand bones, 4 frags of juvenile R. ilium.

5 frags adult skull, frag infant temporal, female mandible (25-35) and two loose teeth (upper L. mesial incisor, lower L. M1).

Mandible:

<u>No. 4030</u> (4017?)

Medial half adult R. clavicle, frags scapula, humerus head, S1, 2nd MT, finger phalanx, juvenile L. femur (c.18m).

No. 4031

Proximal end L. femur (exostosis one third down on linea aspera, possibly ossifying haematoma) and frags distal sub-adult condyle, L. humerus, 2 frags very large R. ulna with OP at proximal facets, distal frag L. radius, trag sub-adult R. radius, distal half juvenile temur (c.4 yrs), frags of at least 2 R. and 2 L. ilia (2 R. male, 1 L. female, 1 L.?).

No. 4033

Adult R. scapula, proximal R. ulna, 2 frags fibula(e), 4 frags ilium, 1 ischium, frag of humeral condyle, proximal half of juvenile L. femur (c.18m). Frags of 1-2 adult skulls (including parietal with pitting), adult R. temporal, L. mandibular ramus, infant R. malar.

No. 4034

Frags of at least 3 ilia (R. sub-adult, R. adult, 1 ?L.), head L. humerus, distal frag of shaft of same?, distal frag larger R. humerus, frags large L. and small R. ulnae, frags 2+ scapulae, lateral frag R. clavicle, S1 frag, frags 7 T and 2 L vertebrae of one individual? and 1 L of another, frags ribs, hands, feet, small frags long bones,

L. clavicle and humerus of juvenile (c.24m) and R. Illum of 7smaller juvenile, animal sacrum.

Frags of at least 2 adult skulls, one quite thick, and a few frags of juvenile skull. Frags of 4 mandibles.

Mandible 1 ?female:

-765//21 12///678

Calculus: Medium Hypoplasia: None Resorption: None Attrition scores:

- 3 4+2+- - 5 5+ 5+5 - - - 4+3 2+

Mandible 2 ?female:

?76543// /-----

Calculus: Medium Hypoplasia: None Resorption: None Attrition scores:

and have made up a

- 3-4 2+2+3 - -

Mandible 3 ?male:

---- ////567/

СС

Calculus: None Hypoplasia: None Resorption: Heavy Attrition scores:

- - - - - - - - - - - - 5 5+6--

Mandible 4 female:

----/ ////////

No. 4035 (3140?, 4039/4040?)

Pair large femora, 2 large L. femora, frag small L. femur, pair of tibiae and R. tibia shaft, pair large humeri and large R. humerus, 2 pairs radii, frags of at least 4 L. ulnae and 1 R. proximal ends, and 1 distal R. frag, almost complete male L. innominate (OP SIJ and iliac crest), ?sub-adult L. ilium frags, 2 frags L. fibula(e), 2 frags distal fibula with periosteal new bone, misc frags of scapulae, clavicles, vertebrae, ribs, foot and hand bones, small frags long bones, small frags juvenile L. radius, R. ulna, R. humerus, vertebrae, L. ilium and R. tibia shaft (c.18m). Frags of 4+ adult skulls (at least 1 male with pitting on parietals and some striation - healed porotic hyperostosis?) including mainly temporals, and animal

mandibular frag (Equus?).

Fragmented skull (complete?) and mandible of juvenile (c.2 yrs). Teeth:

--Ued/// ///deU--

Frags of 3+ mandibles (one is ramus only).

Robust male: / X / X X / / / ------

AAA

Gracile (25-35 yrs): 8 - 6 5 4 3 2 1 1 2 3 4 5 6 7 8 Calculus: Medium Hypoplasia: Slight Resorption: None Attrition scores:

2+ - 5 4 3+ 4+ 5 5+ 5+ 5 4+ 3+ 4 5 3+ 2+

No. 4036

Shaft of small adult R. tibia, frag small femoral shaft and head L. femur, 3 frags unidentified bone (possibly animal, but could be pathological human?), frag large R. radius, shaft smaller L. radius, small frag adult fibula, very large L. calcaneus,

acromion of large scapula, T vertebra, large 1st hallucial phalanx, proximal frag of juvenile R. femur (2-3 yrs), frags of small R. innominate, 2 L. patellae. 2 frags adult skull, L. malar, 3 frags animal skull(s).

<u>No. 4037</u> (4043?)

Pair of gracile clavicles, distal frags of 2 L. humeri, proximal frag large R. ulna, proximal frag small L. radius, frag manubrium, gracile R. femur, female L. innominate, frags male sacrum, frags ribs, 2 adult hand phalanges, 3rd cuneiform, 5 L and 3 T vertebrae.

Juvenile bones: frags of 2 R. and 1 L. femurs of similar size (c.24m?), L. tibia (c.18-24m), frag humerus, 2 ribs, R. scapula and L. ilium. 2 children? A few frags of young female skull and mandible.

Teeth:

87654/21 123456--

R

Calculus: Heavy Hypoplasia: Slight Resorption: None Attrition scores: - 2 3-2 2 - 2+ 4+ 4+ 2+ 3+ 3- 3- 3 - -

<u>No. 4041</u> (4039?)

Complete adult cranium. Large glabella, robust occipital. Male, 35-45? Teeth:

A ?/6X/3// ///XX/X/

.

Calculus: None Hypoplasia: None Resorption: Heavy Attrition scores:

No. 4044

Gracile R. humerus frags, gracile L. radius and distal frag ulna, gracile L. femur and condyle frag of larger R., frags of small L. tibia, small frags of vertebrae, small frag of L. ilium, misc frags of rib, foot, pelvis, etc. Mostly one female? A few small frags of adult/sub-adult skull(s) and mandible frag (25-35 yrs). Teeth:

----///234567/ Attrition scores:

- - - - - - - 4+ 4+ 3- 3- 4 3+? -

No. 4045

Adult skull, partly complete but some loose frags. Smoooth glabella, occipital, small mastoids. Female, 25-35?

Teeth:

8--/4321 12345678

Calculus: Medium Hypoplasia: Slight Resorption: Slight Attrition scores: 2+- - - 4 3+ 4 5 - 5 4+ 4 3+ 4+ 4+ 3 2+

<u>No. 4046</u> (4048?)

Most of adult skull, tragmentary. Large glabella, robust occipital, medium mastoids. Coronal and lambdoid wormians, parietal foramina. ?Male, 18-25.

Teeth: / 7.65432/ //34567U

Calculus: None Hypoplasia: Slight Resorption: None Upper L. PM2 rotated by 90. Attrition scores: - 3-3+4 3+4 3-- - - 4 3+3-3+2+-

<u>No. 4047</u> (4043?)

Frags of old adult male skull. Robust occipital, large glabella, mastoids, etc. Metopism, lambdoid wormian bones.

Teeth:

A A --X54//////4XX--

Calculus: None Hypoplasia: None Resorption: Heavy Attrition scores:

No. 4049

Fairly robust R. femur frags, male R. innominate, small frags rib and scapula.

No. 4051

A few frags of one adult skull and frag L vertebra.

<u>No. 4052</u>

L. scapula, frag head large ?humerus, distal frag L. humerus. frags shafts of fibulae and ulnae, frag frontal (orbit) and frag male maxilla with maxillary sinusitis and probable infection of alveoli.

Teeth:

A A - - - - - - / / X///XX-

No. 4053

Frags of juvenile skull and mandible (3-4 yrs), and small frag adult basi-occipital and mandible (18-25 yrs).

Juvenile teeth:

Ued/---/d/--Ue
Adult mandible:
7654/-Calculus: Slight Hypoplasia: None Resorption: None Attrition scores:
343-3---

No. 4056 (4061?)

Frags of adult female skull (25-35 yrs), and frags of scapular acromion and medial clavicle. Small glabella, medium mastoids, orbits sharp. Inca bone, parietal foramina.

Teeth:

R 87654/2///34567/

Calculus: Slight Hypoplasia: None Resorption: None Attrition scores: 2 3 4 4 5 - - - - 4 3+ 4 4+ 3+ -

<u>No. 4058</u> (4057?)

Frags of at least 4 tibiae (1 pair?, frags 2 R.) and 2 frags condyles, frags small fibula, proximal frag large L. ulna and 2 other frags of ?ulnae, distal half small adult L. humerus (large septal aperture), frags 2 L. calcaneii, L. talus, L. 4th MC, frags 2 L. vertebrae and 1 L5?, frags 2 acetabuli and frags ilium, frag adult sacrum S2-4. 1 frag skull, frag mandibular condyle, frag maxilla (- - - / 4 3 / / attrition = 5+) and 2 loose teeth (upper L. canine, upper L. PM2).

No. 4059 (4060?)

A few frags of adult skull and mandible (45+). Teeth: 8 X 6 5 4 / / / / / / 5 6 7 8

A

Calculus: Heavy Hypoplasia: None Resorption: Heavy Attrition scores: 5 - 6 + 4 + - - - - - 5 + 6 - 5 + 5

No. 4063 (4055/4062)

Frags R. femur with slight graining on medial surface, shaft L. tibia, frags L. ilium, frag S1 segment, hand phalanx, 1st MC, 2 MT frags. All one individual?

No. 4068

Complete but very eroded and broken large L. femur, frags of very large L. femur, frags of smaller R. femur, 2 frags tibia(e) proximal and distal (distal large but unfused), frags of pair of juvenile ?tibiae distal ends, frag small ?L. humerus (?sub-adult), frag adult fibula with slight enlargement and graining of shaft, sub-adult L. patella, adult L. patella, proximal frag adult R. ulna, 2 T vertebrae, frags 2 R. ilia, frags adult and juvenile sacra, various misc frags of long bones including radii and ulnae shafts, various foot and hand bones, some very large. Frags of skull of at least 4 individuals including 1 juvenile, 1 male (thick skull,

lambdoid wormians, parietal foramina), 1 ?female.

Frags of at least 5 mandibles and 1 maxilla.

Juvenile (c.9-10 yrs) mandible:

---6/00///2///6/-Calculus: None Hypoplasia: Slight Resorption: None Mandible 2: ---X//// -----A Mandible 3: ------/////5X--RA Mandible 4: --//X3/- ----- Attrition on canine = 5+ Mandible 5:

Extra teeth: 3 upper molars, 2 premolars of adult. Upper molar, lower molar and premolar of juvenile.

No. 4069

A few frags of infant skull, and R. hand navicular of adult.

No. 4082 (4079? or 4086?) Very small frags labelled "humerus", "radius" and "tibia" and frag R. scapula, rib frags and finger phalanx. Very frag and eroded adult skull and mandible (18-25?). Double mental foramen R. side (L. broken). Teeth: /7654/2- 123-567-Calculus: Slight Hypoplasia: Slight Resorption: None Attrition scores: - 2 3 3-3-- 3+- 4 3+3 - 3-3 2+-No. 4084 (4079?) Frag and eroded adult skull. Robust occipital. (4079/4093?)No. 4085 Frags of adult skull in poor condition. Large mastoids, large teeth. ?Male, 18-25. Teeth: --/543// /2-4-67-Calculus: Slight Hypoplasia: None Resorption: None Crowding of anterior teeth, R. canine pushed behind lateral incisor. Attrition scores: - - 3 3 3- - - - 2+ - 3 - 3 2+ -Also frag of worn molar. No. 4087 Frags of adult skull in poor condition. Small mastoids, medium glabella. ?Female. No. 4088 Frags of adult skull, poor condition. Large mastoids, glabella, etc.

Teeth:

---/43// ///4----

Attrition scores: all surviving teeth = 7. Extra tooth: upper R. lateral incisor.

<u>No. 4090</u>

Frags of adult skull, poor condition. Large glabella, occipital. Parietal foramina. Male, 25-35 years.

<u>No. 4091</u>

Frags of adult skull in poor condition. Small mastoids, glabella. Teeth:

----/6/8

Calculus: Slight Hypoplasia: None Resorption: None Attrition scores:

- - - - - - - - - - - 5 - 2

<u>No. 4092</u> (May be articulated?) A few frags adult cranium and T vertebra in poor condition. Large mastoid.

No. 4094 (4079?) A few frags adult cranium in poor condition. Large mastoids, glabella, etc. Teeth:

Also one premolar?

No. 4095

Frags of long bones in very poor condition, frags hand and foot bones, ribs, vertebrae, mostly adult?

No. 4099

Small frags long bones, pelvis, ribs, hands and feet, vertebrae, scapula, etc., all adult in poor condition.

No. 8002

L and T vertebrae, frag atlas, L. fibula, R. scapula, frag distal humeral condyle, R. cuboid, a few misc frags. All very large, all one male?

No. 8006 (8011?, 8013?)

Frags large R. humerus, ulna and radius, rib and vertebrae frags, large R. femur, upper L. M2 (carious) and upper R. M3, various animal bone frags.

No. 8009 (8008?)

Frags of adult skull, frag scapula and L. hamate. Large brow ridges, mastoids, medium occipital, orbits rounded. ?Male, 25-35. Teeth:

87654321 12345678

---------4----

Calculus: Slight Hypoplasia: Slight Resorption: None

Attrition scores:

2+3+54+4+4+5543+43+5+42

<u>No. 8010</u> (8011?, 8013)

Large L. femur shaft, frags smaller L. femur, frags large L. and smaller R. humeri, very large L. scapula frags, a few rib frags, C vertebra, 3 frags adult ?male frontal bone.

No. 8012

3 rib frags and large 1st MT, animal epiphysis and other frags.

<u>No. 8014</u>

Medium R. clavicle, L. humerus shaft, R. radius shaft, frags of ribs, C and 2 T vertebrae, finger phalanx, frag acromion end, gracile mandible. All one female, 35-45 years?

Teeth:

--///////45678 Calculus: Heavy Hypoplasia: None Resorption: Heavy Attrition scores:

No. 8016

A few frags of 2 adult skulls (2 occipitals and other frags duplicated).

No. 8018 (8003) Adult mandible, fairly gracile. 35-45 years? Teeth: ?U / / 5 4 3 2 1 1 2 3 4 5 6 / U? A A Calculus: Heavy Hypoplasia: Slight Resorption: Medium Attrition scores: - - - 4 3+ 4+ 4+ 5 5 5 4+ 4 4 5+ - -Also 2 ?sheep molars.

"Waterfront" No. 5793

Almost complete male R. innominate. Publis eroded, but age possibly young or middle-aged.

Cemetery 2: Disarticulated Remains

No. 9316

Frags of adult fibula with periosteal reaction/ bone growth, and one adult lower M3.

No. 9355

Frags of at least 3 skulls, all adult. One is pitted ectocranially with thickening of the outer table (affects parietals and occipital most, but also frontal slightly). Frags of 2 maxillae and 1 mandible.

L. maxilla: XX/4/Attrition on PM = 6-Calculus: None Hypoplasia: Slight Resorption: Heavy R. maxilla: CC876543- -Calculus: None Hypoplasia: None Resorption: Medium Attrition scores: 2+45344-- -----Mandible: ----/4X67-Calculus: Slight Hypoplasia: None Resorption: Medium Attrition scores: ---- 4+3?-Old ?male: L. clavicle with well healed fracture (some callus and lipping with cysts?), R. clavicle, large R. scapula frag, pair large robust osteoporotic humerus. shafts, pair large osteoporotic femora, pair large osteoporotic tibiae. Other: ?pair medium humeri, frags of another pair, distal end L, humerus with exostosis at attachment of lower end of brachioradialis, 3 L. radii and frag R., 3 R. and 2 L. ulnae (1-2 large pairs, 1 small), 5+ fibulae (2 with periostitic graining), shafts of 2 L. femora (large and small), distal half R. femoral shaft with osteomyelitic reaction posteriorly (new bone growth, thickening, ?exostosis on linea aspera), pair medium tibiae (both grained slightly), shaft L, tibia grained medially, frag shaft iuvenile/sub-adult tibia, shaft R, clavicle, female L, ilium, male

R. ilium frag, various frags of innominates, other small frags including ribs, vertebrae, foot and hand bones. 3-4 main individuals?

No. 9805

Adult female mandible, 35-45 years? Teeth: - - / 5 / 3 2 X / 2 3 4 5 X 7 ? Calculus: Medium Hypoplasia: Slight Resorption: Medium Attrition scores: - - - 3 - 5 5 - - 6-5+5 5 - 2+-

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Skeletal Measurements

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| 1497 | 25-35 | м? | | | 32 | | | | | |
| 1499 | 45+ | м | | 46 | 32 | | | | | |
| 1850 | c.30 | М | | 47 | 29 | | 33 | 32 | | 66 |
| 1917 | 35-45? | М | 112 | 40 | 32 | | | | | |
| 1919 | 35-45+ | М | | | 32 | | | | | |
| 3100 | MA-01d | M | | 43 | 32 | | 33 | | | |
| 3113 | Young | М | | 44 | | | 31 | 29 | | |
| 3144 | 20-25 | M? 11 | 2 95 | 40 | 31 | 103 | 31 | 30 | 62 | |
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| 3122 | 25-35 | М? | | 43 | 28 | | 34 | 32 | 62 | 62 |
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| 4557 | c.4 | | 42 | 23 | | | |

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| 1708 | 18 | 3-22 | F? | | | 42 | | | 30 | | 63 | |
| 1838 | | .25-30 | | 109 | 92 | 42 | 27 | 99 | 33 | 33 | 00 | |
| 1849 | M | | F | 1.02 | 89 | 40 | 27 | 89 | 31 | 31 | 55 | |
| 1898 | | 8-25 | F | 112 | 98 | 44 | 29 | 99 | 32 | 31 | ~~ | |
| 3060 | | 5-45? | F | | | | 2 3 | | 52 | 30 | | |
| 3074 | | 5-45? | F | 117 | 85 | 46 | 31 | 104 | 33 | 34 | 60 | |
| 3081 | M | | F | 11/ | 0.5 | 42 | 25 | 104 | 31 | 54 | 61 | |
| 3116 | | 8-20 | F | 107 | 86 | 43 | 25 | 91 | 33 | 21 | 51 | |
| 3135 | | 30? | | 107 | 00 | | 20 | 91 | 22 | 31 | 21 | |
| | | | F | 1 . 1 | 0.0 | 44 | 28 | 0.0 | 25 | 32 | | |
| 3141 | | A-Old | F | 121 | 93 | 45 | 26 | 96 | 35 | 35 | 58 | |
| 4001 | | 30 | F | | 89 | 47 | | | | | | |
| 4009 | M | | F | | | 46 | | | 28 | 28 | | |
| 4017 | M | | F | | | 47 | 27 | | 33 | | | |
| 4018 | | 8-21 | F? | | | 43 | 29 | | 33 | | 69 | |
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| 8007 | M | 7 | F | | | 42 | 26 | | 33 | | 63 | |
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| 3123 | Ad | lult | F | | | 45 | 25 | | | 36 | | |
| 3127 | 2 Ac | Jult | F? | | | 44 | 30 | | | | | |
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| 3128 | | lult | F? | | | 44 | 2.5 | | 27 | 27 | 53 | |
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| 8018 | | 5+45 | F? | | 108 | 48 | 29 | | 91 | | | |
| Mean | | | | 113 | 93 | 44 | 28 | 98 | 32 | 32 | 60 | |
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| Maximum | | | | 121 | 108 | 48 | 35 | 106 | 30 | 30 | 69 | |
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8 4 8
394 396 392
459 442 456
#EASUREMENTS : FEMALES | . F
F?
F?
F?
F?
F?
F?
F?
F?
F?
F?
F?
F?
F? | |
| | | | | | 495
6600000 |
| 17-СКАМГАL 3
Аде 5
18-25+
18-25
742 | 55-457
55-457
6.15-20
10
10
10
10
10
10
10
10
10
10
10
10
10 | Adult
30
187
187
18-21
18-21
18-21
18-21
18-21
18-25
184
18-25
184
18-25
184
18-25
25-355
25-355 | : POST-CRANIAL | c.30-55
MA-01d
Young?
MA?
MA.01d
MA.01d?
35-45?
35-45?
35-45? | Adult
18-20
18-25
Adult
19-26
Adult |
| BRANDOM : PDST-CRAMIAL MEASUREMENTS : FEMALES
Steleton No. Age Sex Fell Fell F
1708 18-25 F7
1798 18-22 F7
1746 547 F7 | 1336
1849
1849
1849
1849
2086
2086
2086
2086
2086
2086
2086
2086 | 2146
4001
4009
4017
4017
4017
4017
4051
4051
3000
3001
3001
3001 | | 4558 c. 30-3
4563 ma-01 d
4587 Young?
4587 Young?
4728 ma?
4822 Ault
4825 ma-01 d
4825 35-453
4842 35-453
88AND0N : POST-(CANIAL | 2661
2075
3036
4022
8011 |
| BRANDO
Stelet | | | Hean
Number
Miniaun
Maxiaum
SRANDON | BRANDC | |

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BRANDON : POST-CRANIAL MEASUREMENTS : MALES CEMETERY 1

| - | Skeleton No. | Age | Sex | FeL1
L | FeLI
R | FeL2
L | Feil2
R | Feild
L | FeHd
R | FeE1
L | Fe£1
R | FeO1
L | Feði
R | Fel
L CILI
R | Sc NA | ScNA
R | SacL | SacW | 51W | Sacrai
Index | Meric
Index L | Heric
Index R | Onemic
Index L | Cnemic
Index R | Robust
Index L | Robust
Index R | HEIGHT |
|---|--------------------|-----------------|------------|------------|------------|------------|------------|------------|-----------|-----------|------------|--------------------------|------------------|--------------------|------------|-----------|------|----------|---------|-----------------|-----------------------|------------------|-------------------|-------------------|-------------------|-------------------|----------------|
| | 1385 | 17-25? | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1497
1499 | 25-35
45+ | H?
N | | | | | 53 | | | | 27 | 27 | 3 | | | | | | | | | | | | | |
| | 1553 | 18-20 | N | | | | | 52 | 51 | | | - / | 27 | • | | | | | | | 84.4 | 87.1 | 60.5 | | | | |
| | 1656 | Young | !!? | | | | | 47 | | | | | | | | | | | | | | | | | | | |
| | 1706 | Young? | | | | | | | 49 | | | 26 | | 3 | | | | | | | 83.9 | | | | | | 159.1 |
| | 1781
1816 | Adult
<30 | n:
N | | | | | | 51 | | | 27
31 | 31 | 3 | | | | | | | | | | | | | 103.1 |
| | 1830 | HA? | Я | | | | | 55 | 59 | | | •• | ••• | • | | | | | | | 93.9 | 96.9 | | 51.9 | | | 169.6 |
| | 1850 | c.30 | Ħ | | | | | 48 | 50 | | | 24 | 25 | 3 | | | | | | | | | 74.3 | 73.5 | | | |
| | 1900 | MA-01d | 4?
H | | | | | 49
54 | 48 | | | 26 | | 3 | | | | | | | 77.4
78.8 | | | | | | 166.9 |
| | 1907
1917 | >30
35-45? | | | | | | 52 | | | | 26 | | 3 | | | | | | | /0.0 | | | | | | |
| | 1919 | 35-45+ | | | | | | 55 | 50 | | | 26 | 24 | | 3 3 | 50 | | | | | 78.8 | | | 54.7 | | | 176.1 |
| | 1920 | MA? | Ŋ | | | | | | 50 | | | 31 | 33 | 3 | | | | | | | | | | | | | |
| | 2070 | 35-45 | | | | | | 52 | 57 | | | 20 | - | • | | | | | | | 36.1 | 39.2 | | | | | 174.2 |
| - | 3072
3090 | MA
Young | H
H | | | | | 52
53 | 53
52 | | | 30
28 | 30
28 | 3
3 | | | | | | | 81.1 | 91.1 | | | | | |
| | 3098 | 25-35? | | | 474 | | 472 | 54 | 54 | | 83 | 27 | 29 | 3 | | | | | | | 80.0 | | 59.5 | 60.5 | | | 171.5 |
| | 3100 | MA-01 d | | | | | | 46 | 46 | | | 27 | 26 | 3 145 | | 47 | | | | | 81.8 | | 65.7 | 63.2 | | 13.1 | 174.2 |
| | 3105 | Y-HA?
25-45 | H? | | | | | 51 | 50 | | | 29 | 25 | - | | 32 | | | 58 | | 81.8 | 74.3
73.5 | 73.5 | | | | 168.2 |
| _ | 3110
3113 | 35-45
Young | H
H | | 423 | | 421 | 51
48 | 50
48 | | 81 | 2 3
2 5 | 2 3
26 | 3:
3 | 24 | 43 | | | | | 71.9 | | | 64.7
61.8 | | | 170.9 |
| | 3140 | 01d | H? | 415 | 419 | 414 | 416 | 44 | 10 | | | 26 | 25 | 3 145 | 33 | | | | | | 73.5 | | | 64.7 | | 13.1 | 163.7 |
| | 3144 | 20-25 | | 448 | 445 | 446 | 441 | 47 | 45 | 77 | 78 | 25 | 26 | 3 | 47 | | | | | | 83.9 | | | | 13.8 | | 160.8 |
| | 3145 | MA-01d? | | | 447 | | | 54 | 50 | | | 28 | 29 | 31 | 39 | 50 | | | | | 83.3
77.8 | | | 67.6 | 11.7 | 11.8 | 168.7 |
| | 4016
4019 | MA?
01d? | N
N | | 443 | | 446 | 50
52 | 50 | | | 25
30 | 26
30 | 3'
31 | 35 | | | | | | 54.1 | | | 62.2 | | 12.6 | 167.7
167.6 |
| | 4021 | 18-25 | H. | | | | | | | | | 50 | | 31 | | | | | | | 78.9 | | | | | | 186.5 |
| | 4038 | Y-HA | Ħ | | | | | | 51 | | | 26 | 26 | 31 | | | | | | | | | | | | | 178.9 |
| | 4039 | Adult | N
HO | | | | | | | 78 | 7 9 | | 27 | | | | | 109 | 53 | | 72.2 | | | (5.0 | | | 162.9 |
| | 4040
4042 | Adult
18-20 | #?
| | | | | | 48 | | | 26 | 25 | 2! | | | | | | | | 71.1 | 68.4
52.9 | 65.8 | | | 169.8
166.7 |
| | 4043 | c.30 | 17 | | | | | 46 | | | | 26 | 15 | 3, | 37 | 36 | | | | | 89.7 | 86.2 | | | | | |
| | 4048 | MA? | Ħ | | | | | | 52 | | | 25 | | 3! | | | | | | | 76.5 | | 69.4 | | | | |
| | 4054 | Young | N | | | | | | 45 | 76 | | 27 | 26 | 3: | | 45 | | 114 | 54 | | 71.4
81.8 | | 61.5 | | | | |
| | 4055/4062
4060 | Young?
Old | H
H | | | | | 51 | | | | 26 | | 31 | | 43 | | 114 | 1.4 | | 01.0 | /0.3 | | | | | 184.5 |
| | 4071 | Adult | N? | | | | | | 48 | | | 20 | | 34 | | | | | | | 68.4 | | | | | | |
| | 4073 | Young? | | | | | | 51 | 52 | | | | | | | | | | | | | | | | | | |
| | 4077 | 35-45 | H | | | | | 49 | 48 | | | | | | | | | | | | | | | | | | |
| | 4078
4089 | MA-01d
Adult | л
Н | | | | | | 52 | | | | | | | | | | | | | | | | | | |
| | 8003 | 35-45? | | | | | | | 50 | | | 28 | 28 | 4(| | | | | | | | | | | | | |
| | 8005 | 25-35? | Ħ | | | | | 47 | 49 | | | 25 | 25 | 3: | 31 | | | | 59 | | 70.0 | | | 64.1 | • | | 178.9 |
| | 8008 | 30+ | X ? | | | | | 47 | 48 | | | 24 | | 36 | | | | | | | 7 5. 8
66.7 | | 62.5 | | | | 169.7
165.4 |
| | 8013 | 30+ | M | | | | | | | | | | | | | | | | | | 00./ | | 69.4 | 72.2 | | | 185.1 |
| | Nean | | | 432 | 441 | 430 | 439 | 50 | 50 | 17 | 80 | 27 | 27 | 34 | | | | | | | | | | | | | |
| | Nueber | | | 2 | 5 | 2 | 5 | 25 | 27 | 3 | 4 | 29 | 23 | 27 145 | 35 | 43 | | 112 | 56
4 | | 78.3 | | | | 12.8 | | 171.6 |
| | Minious
Maxíous | | | 415
448 | 419
474 | 414
446 | 416
472 | 44
55 | 45
59 | 76
78 | 78
83 | 23
31 | 23
33 | 29 2
40 145 | 8
24 | 7
32 | | 2
109 | 53 | | 27
54.1 | | | 14
50.5 | 2
11.7 | 5
11.8 | 24
160.8 |
| | | | | 440 | */* | 740 | 4/2 | | | 10 | 0.3 | | 55 | 145 | 47 | 50 | | 114 | 59 | | 93.9 | | | | 13.8 | | :36.5 |
| | BRANDON : POST | -CRANIAL | MEASU | REMENTS | i: MA | LES | CENETE | RY 2 | | | | | | | | | | | | | | | | | | | |
| _ | 4584 | 01d? | 8 | | | | | | | | | 27 | 27 | 36 | | | | | | | | | | | | | |
| | 4675 | Adult | | | | | | | 49 | | | 29 | | 32 | | | | | | | 75.0
90.6 | | 62.9 | 63.6
79.4 | | | |
| | 4849 | Adult | Π <i>!</i> | | | | | | | | | 27 | | 35 | | | | | | | 77.1 | | | /3.4 | | | |
| _ | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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BRANDON : POST-CRANIAL MEASUREMENTS : FEMALES CEMETERY 1

| Skei | eton No. | Åge | Sex | FeL1
L | FeL1
R | FeL2
L | FeL2
R | FeHd
L | FeHd
R | FeE1
L | FeE1
R | FeD1
L | FeD1
R | FeD2iL1 | ScNA
L | ScNA
R | Saci | Sacil | S1W | Sacral
Indéx | Meric
Index L | feric
Index 8 | Cnesic
Index L | Cnemic
Index 2 | Robust
Index L | Robust
Index R | HEIGHT |
|---------------------------------|--------------------------------------|---|---------------|------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|---------------------|---------------------|----------------------|----------------------|------------------------------------|----------------------|----------------------|-----------------------|------------------------|---------|-----------------|----------------------|------------------|-----------------------|-------------------|-------------------|-------------------|-------------------------------|
| | 1406
1708
1709
1746
1936 | 18-25+
18-22
Young
142
35-45? | F?
F
F7 | | | | | 44
41
42 | 42
40 | | | | 20 | | | 52 | | | | | | | | | | | |
| | 1936
1938
1849 | 50-452
c.15-3
MA? | | 410 | 4 10 | 408 | 408 | 42
41
43 | 42 | | | 23
22 | 25
22 | 3 3: 45
26 | 58 | 57 | 123 | 125 | 55 | 101.5 | 69.7
34.6 | 91.3
84.6 | | | 13.2 | 14.0 | :55.4
158.: |
| | 1892
1899 | 01d
Young | 5 | 410
438 | +42 | 409
437 | 441 | 47
43 | 44
43 | 73 | 74 | 23
23 | 20
24 | 35
34127 | 63
56 | 67 | | | | | 65.7
67.5 | 75.0 | | 71.9 | 13.3
12.4 | 12.5 | 155.4 |
| | 2060
3074
3081 | MA
35-45?
MA | 5 | 459 | | 456 | | 41
46
45 | 44 | | | 23
30
25 | 24
25 | 29
36
33 | 84 | 56 | | | 57 | | 79.8
33.3
75.8 | 90.0
93.3 | 51.1 | | 12.1 | | 167.5
:61.5 |
| | 3086
3095 | 25-35?
Y-# A ? | 7 | | | | | | 45 | | | 25 | 23 | 32 | 52
58 | 56 | | | | | 78.1 | 37.5 | 6 6. 7
73.3 | 52.5
53.5 | | | 168.3 |
| | 3101
3103
3116 | MA?
Aduit
c.18-2 | | 420 | | 417 | | 42
41 | 46
42
41 | | | 25
24
25 | 24
24
24 | 31
29
35 | 72 | 59 | | | 47 | | 30.6
82.3
71.4 | 30.0 | 79.3 | | | | 175.2
158.0
157.3 |
| | 3135
3141 | <30?
MA-01d | | 420 | | 416 | | 44
45 | 44
44 | | | 25
25 | 25
25 | 33
33 | 69 | 52
59 | | | | | 75.8
75.9 | | | 78.6
57.6 | 13.2 | | 157.3 |
| | 3146
4001
4009
4017 | Adult
>30
MA?
MA? | F
F
F | 424
394 | 395 | 418
392 | 393 | 42
40
45 | 43
40
45 | 75
69 | | 25
23
26 | 25
22
27 | 31
29
34 | 60
76 | 65
76
88 | 9 8 | 115 | 50 | 117.3 | 76.5 | 81.5
79.4 | | 71.0 | 12.4
12.8 | | 158.3
151.5 |
| - | 4018
4027
4050 | 18-21?
Young
18-22 | F
F | | 386 | | 385 | 45
49
43 | 47
41
44 | 68 | 6 8 | 22
26
21 | 25
25 | 33
30141
29 | 67
47 | 56
65 | | | | | 55.7
35.7
72.4 | 83.3 | | 56.7 | | | 177.7
147.3 |
| | 4061
3000
3001
3007 | Y-HA?
NA-01d
18-25
HA | F | | | | | 42
44
43 | 44 | | | 24
21 | 23 | 29
30 | 52 | | | | | | 82.8
70.0 | | | 58.3 | | | |
| - | 3019 | 25-35? | | | | | | 41 | | | | 21 | | 20 | | | | | | | | | | | | | |
| Hean
Numbi
Hini/
Haxir | NA | | | 422
8
394
459 | 408
4
295
442 | 419
8
392
455 | 407
4
385
441 | 43
25
40
49 | 43
19
40
47 | 71
4
68
75 | 71
2
58
74 | 24
21
21
30 | 24
19
20
28 | 32 138
21 3
26 127
36 145 | 61
13
47
76 | 64
13
56
29 | 111
2
98
123 | 120
2
115
125 | 4
47 | | 21
55.7 | 1
68. | 7 11
5 51.1 | 12
57.6 | 12.1 | 3
12.5 | 161.0
15
147.3
177.7 |
| SRAN | ION : POST | -CRANIAL | MEASL | IREMENT | 5 : FE | MALES | CEM | ETERY 2 | 2 | | | | | | | | | | | | | | | | | | |
| | 4558
4563 | c.30-3
MA-01d | | | | | | 39
44 | | | | 24
24 | 24 | 32 135
33 | | | | | | | 75.0
72.7 | |) | 58.3 | | | 156.3 |
| | 4587
4738
4822 | Young?
MA?
Aduit | F | | | | | 43
45 | 42
42 | | | 27
23
23 | 25
24
23 | 31
33
25 | | 63 | | 118 | 50 | | 87.1
59.7
98.5 | 70. | 5 | 73.5
76.7 | | | 166.3 |
| | 4835
4842 | HA- 01d
3 5-4 5? | | | | | | 48 | 49 | | | 22
24 | 23 | 33 | | | | | | | 56.7 | · 69. | 7 71.0 |) | | | |
| . BRAN | DON : POST | -CRANIAL | MEASU | IREMENT | S:UN | ISEXED | ADULTS | CEME | TERY | 1 | | | | | | | | | | | | | | | | | |
| - | 2062
3073
3096
3105 | Adult
18-29
18-25?
Adult | ?
? | | | | | | | | | 22 | 24
23 | 29 | | | | | | | 75.1 | 70.
9 32. | | 9 75.9
60.6 | | | |
| | 4022
5011 | 18-20
Adult | ?
? | | | | | | | | | 25 | | 37 | | | | | | | 67.6 | 5 | 71.5 | 74.2 | 2 | | |

| Skeleton No. | | 1778 | | 1840 | 1842 | 1843 | 1844 | 1918 | 3083/3088 | 3094 | 3099 | 3114 | | | | | | | 4001 | 4012 | 4097 | 8017 | BRANDON : POST-CRANIAL MEASUREMENTS : CHILDREN | 4557 | 4559 | 4580 | 4665 | 4796 | 4807 | 4821 | 4824 | 4853 | 4946 | 4956 |
|---|--------|------|-----|----------|----------|--------|-------|-------|-----------|------------------|------------|------|-------|---------|--------|--------|-------|-------|----------|-------|------|--------|--|-------|--------|--------|------|---------|--------|-------|------|------|-------|-------|
| Age Sex | | 5-K | | 16-18 #? | 16-18 M? | c.9-10 | c.7-8 | 12~24 | c.13 | c.18-24 = | Sub-ad. M? | c.7 | c.12m | c.9-12s | 18-24s | c.13 | c.3-4 | 1 c.8 | c.18-24e | c-4-5 | 6.9 | 12-13? | -CRANIAL MEAS | • | c.24m? | 11-13 | 5-7 | - 4 - 6 | 18-74e | 7-8 | n.b. | c.14 | c.3-4 | n.b.? |
| Fel. | | 215 | r17 | | | 270 | | 129 | | | | | 35 | | 145 | | | 257 | | 204 | | | UREMENI | | | | 226 | | | | | | | 75 |
| وال
ال | × | | | | | | | | | | | | | 120 | | | | | | 204 | 250 | | 13:01 | | | | 226 | | | | | | 170 | 75 |
| FeDi | | | 1 | 23 | 23 | 18 | 17 | : = | | | | | e, | Ξ | 13 | 81 | | 15 | | 4 | | | HILDREN | | 12 | | 15 | | | | | | 12 | 8 |
| Fe01 | × | | | 24 | | | | : = | | | | | | Ξ | | 18 | | 12 | | | | | | 15 | 12 | 11 | | đ | 5 | 2 | | | 12 | ~ |
| Fe02 | | | | | | | 22 | 1 🖺 | ! | | | | 61 | 2 | 14 | 33 | | 13 | | 18 | | | CEMETERY 2 | | 5 | | 13 | | | | | | 4 | 6 |
| FeLi FeLi FeDi FeDi FeD2 FeD3 FeD3 FeD4 FeD4
i & i > i > i > i > i > i > i > i > i > | × | | | 31 | | | | : 2 | | | | | | 53 | | 24 | | 19 | | 17 | | | 5 | 15 | 16 | 24 | 20 | ç | 21 | 5 | | | 13 | 8 |
| feð3 | | | | 5 | 53 | 81 | | æ | • | | 23 | 81 | - | | 12 | 81 | | 14 | = | 13 | | | | | 12 | | 5 | | - | : 99 | 1 | | 01 | ~ |
| reD3
v | × | | | 22 | 26 | | | ð | • | | | 8 | | | 11 | 81 | | 4 | Ξ | 13 | | | | | Ξ | | 15 | a | 2 | 2 | ٢ | | 10 | u |
| f.e04 | | | | ន | 22 | 18 | | to | : | | 24 | 11 | 69 | | 12 | 18 | | 51 | Π | 4 | | | | | 12 | | 15 | | Ξ | : [] | 5 | | Ξ | - |
| | | | | 23 | 22 | | | 9 | : | | | 17 | | | 10 | 81 | | 22 | = | 2 | | | | | 12 | | 15 | σ | . 5 | 2 | 2 | | 12 | 5 |
| 111 - | _ | | | | | | | 101 | • | | | | | | 118 | | 145 | 200 | | 150 | | | | | | | | | | | | | | |
| LiL1 | × | | | | | | | | | | | | | ŝ | 118 | | 145 | | | | | | | | | | | | | | | | | |
| T IOI I | | | | | 67 | 5 | 2 | đ | • | | | | œ | 0; | 14 | 51 | 1 | 61 | | 9 | | | | | | | | | | | | | | |
| TiDi T | | | | | 20 | | 18 | 2 5 | : | | | | | 5 | 1 | 51 | 5 | 19 | | | | | | | | | | | | | | | | |
| TiD2 T | | - | | | 23 | 9 | 2 | ٢ | | | | | œ | \$ | 12 | ន | = | 12 | | 4 | | | | | | | | | | | | | | |
| TiD2 Fi | | | | | 24 | i | 16 | 90 | 'n | | | | | 10 | 11 | | 12 | 15 | | | | | | | | | | | | | | | | |
| ELL FI | | | | | | | | | | | | 200 | | | | | | | | | | • • | | | | | | | | | | | | |
| FiL1 Hul | | - | | 61 | | | | | 61 | | | | | | | | | - | | | | 250 | | | | ~1 | | | | - | | ~1 | | |
| Huli Huli
1 2 | | 04 | | 270 27 | | | 11 | . 2 | 229 23 | | | | | | | 23 | | 185 | | | | | | # | | 225 23 | - " | | | 180 | | 244 | | |
| 1014 1. | | | | 272 22 | 2 | | 5 | . 64 | 231 | | | | | | | 11 232 | | | | | | | | 165 1 | | | 170 | 2 | | - | | | | |
| 1 HuD1 | | | | 2 22 | 0 | | | 10 | | | | | | | 3 | 5 16 | 11 11 | e. | | | | | | 12 11 | | * | 4 | - | | 16 15 | | | | |
| HuD2 | | | | 8 | 61 | | | _ | | | | | | | | | 80 | 10 | | | | | | 6 | | 12 | | | | 12 | | | | |
| HuD2
P | | | | 18 | | | | 1 | | | | | | | 10 | 11 | | | | | | | | 6 | | | Ξ, | o | | 12 | | | | |
| Rali | | | | | | | | 11 | | | | | | | | | | 135 | | | | | | | | | | | | | | | | |
| RaLi | | | | | | | 133 | | | 68 | 218 | | | | | | 100 | | | | 150 | | | | | 170 | | | | | | | | |
| 1110 | | | | 230 | | | | | | | | | | | | | | | | 125 | | | | | | | | | | | | | | |
| uL1 | × | | | | | | 148 | 2 | | | | | | 8 | | 188 | | | | | | | | | | | | | | | | | | |
| - 110 | ., | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 111 | 8 | | | | | | | | 107 | | | | | | | | 61 | | | | | | | | | | | | | | | | | |
| leric
dev l | l xabi | | | 74.2 | 76.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clli Meric Meric Cnemic Cnemic
D Index Findex D Index D | Index | | | 77.4 | 8 | | | | | | | | | | | | | | | | | | | | , | | | | | | | | | |
| Cnen | Index | | | | 79.3 | | | | | | | | | | | | | | | | | , | | | | | | | | | | | | |
| <u> </u> | LING | | | | 3 30.0 | | | | | | | | | | | | | | | | | , | | | | | | | | | | | | |

BRANDON : MISCELLANEOUS FEMORAL MEASUREMENTS : MALE CEMETERY 1

| | Sex | Fell
L | Fell
R | FeL2
L | FeL2
R | FeHd
L | FeHd
R | FeEl | FeE1
R | FeD1
L | FeD1
R | FeD2
L | FeD2
R | FeD3
L | FeD3
R | FeD4
L | FeD4
R | Meric
Index L | | Robust
Index L |
|--|--|----------------------|--|-----------------------|--|--|--|--------------------|--------------------|--|--|---|--|--|--|--|---|---|---|-------------------|
| Disarticulated | | | | | | | | | | | | | | | | | | | | |
| 1803 | N | | | | | 50 | | | | 27 | | 37 | | 28 | | 30 | | 73.0 | | |
| 1803 | N? | | | | | | | | | | 25 | | 37 | | 27 | | 29 | | 67.6 | |
| 1863
1863 | N
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BRANDON : MISCELLANEOUS FEMORAL MEASUREMENTS : UNSEXED CEMETERY 1

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| 3067 | ? | | 485 | | 483 | | 43 | | | 25 | 26 | 29 | 29 | 26 | 27 | 27 | 27 | 86.2 | 89.7 | | 11 |
| 3067 | ? | | | | | | 48 | | | 24 | | 32 | | 26 | 29 | 26 | 25 | 75.0 | | | |
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| | 2 c.7-8 | 243 | | | | | | | | 17 | | 17 | | 17 | | 15 | | | | | |
| | 3 c.11-12 | | 290 | | | | | | | • | 21 | | 26 | | 20 | | 19 | | | | |
| | 4 Infant | | 2.70 | | | | | | | | | | | 13 | | 11 | | | | | |
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| 1485 | 6-7 | 230 | | | | | | | | | | | | | | | | | | | |
| 1803 | Sub-ad | | | | | | | | | 21 | | 31 | | 25 | | 24 | | 67.7 | | | |
| . 1803 | c.5-6 | | 210 | | | | | | | | | | | | | | | | | | |
| 1863 | 12-13 | 30B | | | | | | | | 21 | | 27 | | 20 | | 20 | | 77.8 | | | |
| 1863 | c.6 | | 220 | | | | | | | | 16 | | 15 | | | | | | | | |
| 1863 | ? | | | | | | | | | 14 | | 13 | | | | | | | | | |
| 1865 | c.5 | 200 | | | | | | | | | | | | 15 | | 15 | | | | | |
| 1888 | Sub-ad | | | | | 40 | 39 | | | 21 | 23 | 30 | 28 | 24 | 25 | 25 | 23 | 70.0 | 82.1 | | |
| 1888 | c.6m | | 105 | | | | ••• | | | | | • | | | | | | , | | | |
| 3082 | c.12-13 | 305 | 100 | | | | | | | 23 | | 25 | | 21 | | 19 | | | | | |
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| | | | 181 | | | | | | | | 14 | | 16 | 13 | 12 | 15 | 11 | | | | |
| 3127 | c.3-4 | | 191 | | | | | | | | 14 | | 10 | 11 | 11 | 10 | 10 | | | | |
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| 4005 | n.b.? | 80 | | | | | | | | | | | | 7 | | 7 | | | | | |
| 4010 | n.b.? | 80 | | | | | | | | | | | | 6 | | 7 | | | | | |
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| 4028 | 18-24 | 140 | | | | | | | | 15 | | 19 | | 14 | | 14 | | | | | |
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| 4030 | c.4-5 | 190 | | | | | | | | | | | | | | | | | | | |
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4031 | c.4-5
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| 4030 | c.4-5
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c.2-3 | 190
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| 3078 | M | | | | | | | | | | | 30 | | | |
| 4011 | M | 367 | 367 | 358 | 360 | 362 | 362 | 77 | 77 | 38 | 37 | 26 | 28 | 68.4 | |
| 4011 | M | | | | | | | | | | 39 | | 30 | | |
| Mean | | 367 | 367 | 358 | 360 | 362 | 362 | 77 | 77 | 38 | 38 | 28 | 29 | 68.4 | |
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| Minimum | | | | | | | | | | 38 | 37 | 26 | 28 | 68.4 | |
| Maximum | | | | | | | | | | 38 | 39 | 30 | 30 | 68.4 | |
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Disarticulated | M
CELLANEI
Sex | TiL1
L | TiL1 | TiL2
L | TiL2 | TiL3
L | TiL3 | TiE1
L | TiE1 | TiDi
L | TiD1
R | TiD2
L | TiD2 | Cnemic
Index L | (
Ir |
| 9355
BRANDON : MISC
Skeleton No.
Disarticulated
1803 | N
CELLANEI
Sex
J
F | TiL1 | TiL1 | TiL2 | TiL2 | TiL3 | TiL3 | TiE1
L
70 | TiE1 | Ti D1
L
32 | TiD1
R | TiD2
L
19 | TiD2
R | Cnemic
Index L
59.4 | (
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| 9355
BRANDON : MISO
Skeleton No.
Disarticulateo
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1803 | N
SELLANEI
Sex
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F? | TiL1
L | TiL1 | TiL2
L | TiL2 | TiL3
L | TiL3 | TiE1
L | TiE1 | TiDi
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L | TiD2
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22 | Cnemic
Index L
59.4
69.7 | (
It |
| 9355
BRANDON : MISC
Skeleton No.
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1803
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L | TiL2 | TiL3
L | TiL3 | TiE1
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70 | TiE1 | TiD1
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33 | TiD1
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BRANDON : MISC
Skeleton No.
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L | TiL2 | TiL3
L
349 | TiL3 | TiE1
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70 | TiE1 | TiD1
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32
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28 | TiD1
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Index L
59.4
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| 9355
BRANDON : MISC
Skeleton No.
Disarticulated
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1803
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4011 | N
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L | TiL1 | TiL2
L | TiL2 | TiL3
L | TiL3 | TiE1
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70 | TiE1 | TiD1
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BRANDON : MISC
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L | TiL1 | TiL2
L | TiL2 | TiL3
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Index L
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BRANDON : MISC
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F | TiL1
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351 | TiL1 | TiL2
L
345 | TiL2 | TiL3
L
349
336 | TiL3 | TiE1
L
70
66 | TiE1 | Ti D1
L
32
33
28
27
25 | Ti D1
R
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28
32
27 | TiD2
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18 | TiD2
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Index L
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BRANDON : MISO
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F | TiL1
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351 | TiL1 | TiL2
L
345 | TiL2 | TiL3
L
349
336
342.5 | TiL3 | TiE1
L
70
66 | TiE1 | TiD1
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29 | TiD1
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30 | TiD2
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18
20 | TiD2
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Index L
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BRANDON : MISC
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345 | TiL2 | TiL3
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336 | TiL3 | TiE1
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66 | TiE1 | Ti D1
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25 | Ti D1
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18 | TiD2
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19 | Cnemic
Index L
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BRANDON : MISCELLANEOUS TIBIAL MEASUREMENTS : MALES CEMETERY 1

| | Sex | TiLt
L | TiL1
R | Til2
L | TiL2
R | TiL3
L | TiL3
R | TiE1
L | TiE1
R | TiD1
L | TiD1
R | TiD2
L | TiD2
R | Cnemic
Index L |
|---|--|------------------|-----------------------|----------------|-----------|-----------|-------------|-----------|-------------|--|--|--|---|-----------------------------------|
| Articulated | contexts | | | , | | | | | | | | | | |
| 4018 | ? | | | , | | | | | | 29 | | 22 | | 75.9 |
| Disarticulat | ed | | | | | | | | | | | | | |
| 1803 | ? | | | | | | | | | 33 | 33 | 22 | 22 | 66.7 |
| 1863 | ? | | | | | | | | | 38 | 38 | 24 | 24 | 63.2 |
| 1863 | ? | | | | | | | | | 34 | | 23 | - | 67.6 |
| 3067 | ? | | | | | | | | | 0. | 30 | 20 | 21 | 0/10 |
| 3082 | ? | | | | | | | | | | 34 | | 24 | |
| 3082 | ? | | 354 | | 240 | | 25.3 | | | | 24 | | | |
| | | | 334 | | 348 | | 352 | | | | | | 20 | |
| 3087 | ? | | | | | | | | | 34 | | 22 | | 64.7 |
| 3126 | ? | | | | | | | | | 37 | | 27 | | 73.0 |
| 3127 | ? | | 373 | | 366 | | 367 | | 78 | | 32 | | 22 | |
| 3148 | ? | | | | | 366 | | | | 33 | | 20 | | 60.6 |
| 4005 | ? | | | | | | | | | 29 | | 23 | | 79.3 |
| 4011 | ? | | | | | | | | | | 29 | 20 | 23 | |
| 4028 | ? | | | | | | | | | | 36 | 21 | 21 | |
| 4028 | ? | | | | | | | | 70 | | 20 | 21 | 21 | |
| | | | | | | | | | 76 | | | | | |
| 4035 | ? | 350 | | 344 | | 346 | | 69 | | 35 | 32 | 22 | 23 | 62.9 |
| 4035 | ? | | | | | | | | | | 36 | | 22 | |
| | eđ | | | | | | | | | | | | | |
| 9355 | | | | | | | | | | 33 | 30 | 23 | 23 | 69.7 |
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33 | 30 | 23
22 | 23 | 69.7
66.7 |
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| 9355 | ?
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Til3 | | Y 1
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TiD1 | | | |
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Brandon : Mis | ?
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Scellaneous | | | | | | | | | 33 | | 22 | | 66.7 |
| 9355
Brandon : Mis | ?
?
SCELLANEOUS
Age | Till | TiLl | Til2 | TiL2 | Til3 | Til3 | TiE1 | TiEl | 33
TiD1 | Ti D1 | 22
Tid2 | Ti D2 | 66.7
Cnemic |
| 9355
BRANDON : MIS
Skeleton No.
Articulated
4004 | ?
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SCELLANEOUS
Age
contexts
2 c.7-8 | Til1
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183 | Till
R | Til2 | TiL2 | Til3 | Til3 | TiE1 | TiEl | 33
TiD1 | TiDI
R | 22
Tid2 | TiD2
R | 66.7
Cnemic |
| 9355
BRANDON : MIS
Skeleton No.
Articulated o | ?
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SCELLANEOUS
Age
contexts | Til1
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183 | TiLl | Til2 | TiL2 | Til3 | Til3 | TiE1 | TiEl | 33
Tidi
L | Ti D1 | 22
Tid2
L | Ti D2 | 66.7
Cnemic |
| 9355
BRANDON : MIS
Skeleton No.
Articulated (
4004
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SCELLANEOUS
Age
contexts
2 c.7-8
4 n.b6m
Infant | Til1
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183 | Till
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TiD1
L
17 | TiDI
R | 22
TiD2
L
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R | 66.7
Cnemic |
| 9355
BRANDON : MIS
Skeleton No.
Articulated
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Disarticulate
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SCELLANEOUS
Age
contexts
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4 n.b6m
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ed
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BRANDON : MIS
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BRANDON : MIS
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BRANDON : MI
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BRANDON : MI
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BRANDON : MI
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BRANDON : MI
Skeleton No.
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BRANDON : MI
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BRANDON : MI
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BRANDON : MI
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Cnemic
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BRANDON : MIS
Skeleton No.
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Disarticulate
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Infant
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BRANDON : MIS
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L | Til3 | TiE1 | TiEl | 33
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Cnemic
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BRANDON : MIS
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SCELLANEOUS
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contexts
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Sub-ad
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Infant
Sub-ad
Sub-ad
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L | Til3 | TiE1 | TiEl | 33
TiD1
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Cnemic
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BRANDON : MIS
Skeleton No.
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SCELLANEOUS
Age
contexts
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Infant
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Sub-ad
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Sub-ad
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Infant
Sub-ad
Sub-ad
12-18m
? | TiL1
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90 | Til2 | TiL2 | TiL3
L | Til3 | TiE1 | TiEl | 33
TiD1
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31 | 22
TiD2
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26 | Ti D2
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Cnemic
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BRANDON : MIS
Skeleton No.
Articulated (
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SCELLANEOUS
Age
contexts
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Sub-ad
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Infant
Sub-ad
Sub-ad
12-18m | TiL1
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TiD1
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12 | TiD1
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12 | 22
Ti D2
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11 | 66.7
Cnemic
Index L
71.0 |

BRANDON : MISCELLANEOUS ARM BONE MEASUREMENTS : MALES CEMETERY 1

| | Skeleton No. | Sex | HuL1
L | Hull
R | HuD1
L | HuD1
R | HuD2
L | HuD2
R | HuHd
L | HuHd
R | HuE1
L | HuE1
R | RaL1
L |
|---|-----------------------------------|---------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | Disarticulated | | | | | | | , | | | | | |
| | 1803 | N? | | | 22 | | 17 | | 48 | | | | |
| | 1803
1863 | M
M? | | | 26 | | 24 | | | | | | |
| | 1863 | Ħ | | | | | | | | | | | |
| | 1921
1923 | M
M? | | | | 25
23 | | 22
18 | | 50 | | 62 | |
| | 3067 | M? | | | | | | | | | 60 | | |
| | 3082
3122 | M?
N | 321 | | 26
21 | | 22
16 | | 52 | | 65 | | |
| | 3127 | M? | 011 | 301 | 23 | 24 | 17 | 17 | 02 | 48 | 63 | 62 | |
| | 3143 | M | | 328 | | 22 | | 17 | | 48 | | 65 | |
| | 3143
4011 | M?
M | | | 24 | | 18 | | | | | | |
| | 402B | M | | | 26 | 28 | 20 | 21 | | | 70 | 72 | |
| | 4035
4035 | M
M | | | 24 | 25
25 | 20 | 20
19 | | | 60 | 61
60 | 244 |
| | 8006 | M | | | | 24 | | 19 | | | | 00 | |
| | B010 | M | | | | | | | | | 69 | | |
| | Mean | | 321 | 315 | 24 | 25 | 19 | 19 | 50 | 49 | 65 | 64 | 244 |
| | Number
Minimum | | 1 | 2
301 | 8
21 | 8
22 | 8
16 | 8
17 | 2
48 | 3
48 | 6
60 | 6
60 | 1 |
| | Maximum | | | 328 | 26 | 28 | 24 | 22 | 52 | 50 | 70 | 72 | |
| | BRANDON : MISCE
Disarticulated | LLANCU | JUJ AKN | DUNC | nenduk | CHCNIƏ | ; MAL | C0 | CEMETE | KT 2 | | | |
| | 9355 | M | | | 25 | 27 | 23 | 22 | | | | | |
| | BRANDON : MISCE | LLANE | JUS ARM | BONE | MEASUR | EMENTS | : FEM | ALES | CEME | TERY 1 | | | |
| | Skeleton No. | Sex | Huli
L | HuL1
R | HuD1
L | HuD1
R | HuD2
L | HuD2
R | HuHd
L | HuHd
R | HuE1
L | HuE1
R | Ral1
L |
| | Disarticulated | | | | | | | | | | | | |
|) | 1803 | F? | | | 22 | | 18 | | | | 56 | | 255 |
| | 3067
3067 | F | | 327 | 14 | 21 | 18 | 19 | | | | 57 | |
| 1 | 3089 | F | | | 22 | | 15 | | | | | | |
| | 3097 | F | | | 20 | 22 | 19 | | | 40 | 52 | | |
| | 3127
4011 | F?
F | 282 | 293 | 23 | 22
21 | 17 | 17
17 | 41 | 43
40 | 55 | 54 | |
| • | 4034 | F | | | | | | | 43 | | | | |
| | 4037.
4040 | F
F? | | | | 18 | | 15 | | | 54 | | 206 |
| • | 4058 | F | | | | 10 | | 15 | | | 53 | | 200 |
| | 8014 | F | | | 21 | | 16 | | | | | | |
| | Mean | | 282 | 310 | 20 | 21 | 17 | 17 | 42 | 42 | 54 | 56 | 231 |
| | Number
Minimum | | 1 | 2 | 6 | 4 | 6
15 | 4 | 2 | 2 | 5
52 | 2 | 2 |
| | .Minimum
Maximum | | | 293
327 | 23 I | 18
22 | 15
18 | 15
18 | 41
43 | 40
43 | 52
56 | 54
57 | 205
255 |
| | | | | | | | | 152 | | 10 | 50 | | 200 |

| BRANDON : | MISCELLANEOUS | ARM BONE | MEASUREMENTS | : | UNSEXED | CEMETERY | 1 |
|-----------|---------------|----------|--------------|---|---------|----------|---|
| | | | | | | | |

| Skeleton No. | Sex | Huli
L | HuL1
R | HuD1
L | HuD1
R | HuD2
L | HuD2
R | HuHd
L | HuHđ
R | HuE1
L | HuE1
R | RaL1
L | RaL1
R | UILI
L | UIL
R |
|--------------------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------|----------------|-----------|-----------|-----------|-----------|-----------|----------|
| Articulated | | | | | | | | | | | | | | | |
| 4016 | ? | | | | | | | | | 63 | | | | | |
| Disarticulate | ed | | | | | | | | | | | | | | |
| 1803 | ? | | | 24 | | 19 | | | | | | | | | |
| 1863 | ? | | | | 24 | 10 | 18 | | | | | | | | |
| 1863 | ? | | | | 21 | | 10 | | | | | | 237 | | |
| 1963 | ? | | | | | | | | | | | | 256 | | |
| 1865 | ? | | | | | | | | | | | | 200 | 263 | |
| 1888 | ? | | | 23 | | 19 | | | | | | | | 200 | |
| 3063 | ? | | | | 21 | | 15 | | | | | | | | |
| 3067 | ? | | | | | | | | | | | 223 | | | |
| 3147 | ? | | | | 25 | | 17 | | | | | | | | |
| 4005 | ? | | | 23 | 23 | 19 | 19 | | | 60 | | | | | |
| 4005 | ? | | | | | | | | | | | | | | 27 |
| 4028 | ? | | | | 24 | | 19 | | | | | | | | |
| 4031 | ? | | | 22 | | 20 | | | | | | | | | |
| BRANDON : NIS
Disarticulate | | US AKM | BUNE | REAGUR | ERENIS | : UNS | EXEU | LEME | TERY 2 | | | | | | |
| 9355 | ? | | | | 22 | | 19 | | | 61 | 61 | | | | |
| 9355 | ? | | | 26 | | 20 | 12 | | | | 01 | | | | |
| 9355 | ? | | | | 22 | _, | 17 | | | | | | | | |
| BRANDON ; MIS | | | | | | | | CE N
HuHd | IETERY
HuHd | 1
HuE1 | HuE1 | RaL1 | RaL1 | UILI | UII |
| Skeleton No. | Age | HuL1
L | HuL1
R | HuD1
L | HuDi
R | Ľ | HuD2
R | L | R | L | R | L | R | L | 011
R |
| Articulated o | ontexts | | | | | | | | | | | | | | |
| 1839 | c.13 | 230 | | | | | | | | | | | | | |
| 3070 | 6-12m | | | | | | | | | | | | | | 7 |
| | 8 c.11-12 | | | | | | | | | | | | | 180 | |
| 4050 | 12-18m | | | | | | | | | | | 85 | | | |
| Disarticulate | ed | | | | | | | | | | | | | | |
| 1803 | c.5 | 152 | | | | | | | | | | | | | |
| 1863 | ? | | | 12 | 12 | 10 | 10 | | | | | | | | |
| 1863 | 3-4 | 136 | | 13 | 13 | 11 | 10 | | | | | | | | |
| 3069 | Sub-ad | | | | | | | | | | | 218 | | | |
| 3078 | 3-4 | | | | | | | | | | | | 105 | | |
| 3082 | c.13 | | | | | | | | | | | | | | 18 |
| 3082 | 18-24 m | 110 | | | | | | | | | | | | | |
| 3082 | 5-6 | | 155 | | 14 | | 10 | | | | | | | | |
| 3097 | c.8 | | | | | | | | | | | 140 | | | |
| 4005 | n.b. | | 75 | | 8 | | 7 | | | | | | | | |
| 4010 | 5-6 | | | | | | | | | | | 120 | | | |
| | c.12m | | | | | | | | | | | | | 85 | |
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4034 | c.24m | 117 | | 11 | | 9 | | | | | | | | | |

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| BRANDOW : NOM-METRIC TRAITS : FEMALES | MALES CENETERY 1 | | | | | | | | | | | | 83 | CENETERY 2 | | | |
|---|--------------------------------|-------------------|---------------------------------------|---|-------------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|--------------------------------|-------------------------|--------------------|---|------------------|----------------------|
| Sk. No.
Trait | 1406 1708 1838 1 | H9 1882 1883 18 | 198 1901 3060 30) | 1502 1802 9021 | 3095 3101 2115 2 | 122 3135 3141 | 4001 4017 4018 | 4025 4027 4037 - | 4042 4020 4026 4 | 4057 4087 4091 5 | 100 1001 1001 1001 1001 1001 1001 1002 1002 1001 1001 1001 1001 1001 1001 1012 112 1 | u + 61 | 1 | 58 4563 4587 460 | 4558 4563 4587 4602 4738 4822 4 835 48 42 | • | |
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| BRANDOM : NON-METRIC TRAITS : MALES CEMETERY I | ALES CENETERY I | | | | | | | | | | | | | | | | CENETERY 2 |
| Sk. #o.
Trait | 1385 1497 1499 | 1816 1830 1850 1 | 1279 1893 1900 11 | 17 1919 3070 3072 | 3079 3096 3098 | 3110 3113 3124 | 3142 3144 3145 | 4015 4016 4019 | 4020 4021 4038 | 4041 4042 4046 | 1461 1461 1460 1810 1820 1820 1820 1801 1401 1401 1401 1401 1401 1401 140 | 204 1204 4073 | 8 4085 4088 408 | | 8004 8005 8009 8021 8022 | ج
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40 | 51 402
147 | 4 4055 | 7068 | 4041 4042 4046 4047 4054 4055 4068 4073 4077 4078 4085 4088 4089 4090 | 7 4078 | 1083 | + 088 | 09 400 | 1601 0 | 1008 | 8005 80 | R005 R009 R021 | 9022 | • | • | |
|----------------------------|------|---------|--------|---|--------|---------|---------|---------|---------|---------|---------|----------|------|---|--------|----------|---------|--------|----------|---------|-----------|------|-------------------|---------------|--------|------|---|--------|------|--------------|--------|--------|------|---------|----------------|------|----|-----|------|
| Trait | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | • | |
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| Coronal woralans | • | ; | • | • | 0 | • | • | • | °
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| Sagittal vormians | • | ; | • | | 0 | • | • | , | °
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- | ٠ | • | , | ; | ' | 0 | ı | ; | , | ę | 81 | 16.7 |
| Lampdoid vormians | • | ; | • | ; | 0 | • | • | ٠ | • | • | | ' | • | ٠ | • | • | e | • | ٠ | · | • | 0 | ٠ | • | ' | ٠ | ; | • | • | • | , | • | 0 | | ; | , | 81 | | 8.3 |
| Epipteric bone R | , | ; | • | | 6 | , | : | · | ; | • | • | : | • | , | | • | • | ; | • | | • | • | • | ; | ' | • | ; | ' | • | , | ; | ' | • | | | , | ¢ | | |
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| Parietal notch bone R | • | ; | , | | 0 | , | : | • | ; | • | | ; | • | • | | ŀ | • | ; | • | | • | • | | | ' | • | ; | • | • | , | ; | • | 0 | | • | ŀ | e | en | |
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| Inca bone | • | 0
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| Asterionic bone R | • | ; | • | | • | • | • | • | ' | • | , | ' | , | | ; | • | • | ; | • | | • | • | | ; | ' | • | | ' | • | , | ; | ' | ÷ | , | ' | , | ¢ | 'n | |
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| Post-condylar canai R | • | ; | • | , | • | , | • | 0 | ; | • | • | • | • | , | + | • | , | • | • | • | • | · | 0 | ° | • | • | | • | • | • | | ' | • | , | '
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| Pre-condylar tubercie | • | ; | ٠ | • | • | Ģ | : | ٠ | : | + | , | ; | 0 | 0 | • | ٠ | ÷ | • | • | • | • | 0 | • | '
0 | • | • | 0 | ' | • | • | 0 | ' | c | , | ' | 0 | • | | • |
| Double hypoglossai camal R | ' | • | • | • | • | , | • | • | ; | 0 | • | '
0 | • | • | • | 0 | Ģ | • | • | • | • | i. | 0 | 0 | 0 | • | ; | • | ٠ | | ; | • | • | 3 | ' | 0 | m | | 0.0 |
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| Tori maxiliares 8 | • | 0 | 0 | ; | o | • | • | • | : | • | , | ' 0 | • | 0 | | ŀ | • | 0 | • | ø | 0 | 0 | 0 | °, | • | · | | • | · | • | ; | ' | 0 | • | ' | ¢ | 0 | | |
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| Tori mandibulares R | • | 0 | • | 0 | • | , | • | • | 0 | • | , | 0 | • | • | • | 0 | • | • | • | • | • | 0 | • | о
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CEMETERY 1 BRANDON : NON-METRIC TRAITS : UNSEXED

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| Metopic suture | | 0 | ı | , | Ó | 0 | + | Ċ
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| Sagittal vormians | | ı | ı | ı | | , | , | 。 | ' | 0 | ł | ı | 0 | 2 | ı | ı | 0 | 0 | ' |
| tambdoid vormians | | , | ł | ÷ | ī | , | ı | + | I | 0 | ı | 1 | 2 | | 56. 7 | • | , | I | ľ |
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| Inca bone | | , | , | , | , | , | ł | ÷ | Ċ | 0 | ı | , | 0 | ~ ~ | ı | • | ı | 0 | ' |
| Asterionic bone | o: | , | ł | , | ı | , | , | ' | ١ | ' | ١ | , | 0 | 0 | , | ı | , | ١ | • |
| | | ŀ | , | ł | ı | • | | ' | ł | ı | , | , | 0 | 0 | ŀ | , | ł | ı | , |
| Post-condylar canal | • | , | 0 | 1 | ı | 0 | 1 | ' | ı | + | ı | , | +-1 | сэ
сэ | 33.3 | • | ľ | ı | ' |
| | | ı | Ó | ł | , | | | + | 1 | + | ۱ | • | 0 | | 6.7 | ı | ı | ł | ı |
| Pre-condylar tubercle | | ' | , | , | , | 0 | 0 | ' | 0 | 0 | • | 0 | 0 | | , | ı | ' | ľ | ۱ |
| Double hypoglossal canal | o ∠: | ı | 0 | 0 | , | | , | • | • | 0 | ı | 0 | | 3 | 20.0 | 0 | 1 | ı | ' |
| | 1 | ı | 0 | 0 | Ŧ | 0 | 0 | 0 - | ' | 0 | ı | ı | 0 | | ı | 0 | ' | T | ı |
| Torus palatinus | | ı | , | • | ı | 0 | | 1 | ' | 0 | 0 | | 0 | ę | , | 0 | ı | ŀ | • |
| Tori maxillares | æ | 0 | ı | ï | , | 0 | 1 | ' | ł | 0 | 0 | , | 0 | -4 | 1 | • | ı | ۱ | ' |
| | ~~ | 0 | ı | , | , | 0 | , | ' | 1 | 0 | 0 | | 0 | 4 | ı | ı | ١ | 1 | ı |
| Torus auditivus | æ | ı | 1 | · | 0 | 0 | 1 | • | ı | 0 | 0 | • | 0 | Ь | ı | 0 | , | ı | ı |
| | ب | • | , | , | 0 | Ō | , | ° | ľ | 0 | 0 | • | 0 | S | , | 0 | , | ı | ' |
| Tori mandibulares | ox: | 0 | ۱ | ı | 0 | | 0 | 0 | , | 1 | 0 | 0 | 0 | ٢ | ı | 0 | , | • | ' |
| | | 0 | ı | ı | 0 | ı | 0 | 0 | , | ı | 0 | 0 | 0 | 7 | ı | Û | t | ŀ | ı |

CEMETERY 2