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BARNSTAPLE CASTLE - HUMAN BONE REPORT

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Bones from about 90 graves were examined in the Laboratory. The amount of information recoverable was severely limited as the majority of the bones were in a very poor condition; mostly fragmented and the surface eroded to varying degrees.

Age was estimated from the state of development and eruption of teeth(1) for juveniles, from epiphyscal fusion(2) for immature adults and from dental wear(3) for adults. Dental wear is not necessarily an absolute scale but it allows approximate ages and true relative ages to be recorded. Maximum stature figures quoted were calculated from long bone measurements using the formulae of Trotter and Gleser(4).

The information recorded from the bones is summarised in Table 1. There are individual descriptions of burials only where further details, not contained in the table, were noted.

The best preserved parts of the body were usually the teeth and, to a lesser extent, the jaws. For this reason fairly detailed descriptions of the dental pathology and abnormalities are possible. Post-cranial pathology has only been noted in the most obvious cases on (comparatively) well preserved bones as it was otherwise not possible to identify it positively enough.

The teeth from these burials were generally in very good condition. The only individuals to show more than the odd one or two small caries cavities were those "aged" over 35. Even then not all were affected. Exposure of the pulp cavity and abscesses were also restricted to this small group. Most individuals did however have slight to medium calculus deposits on their teeth and about half the adults showed some signs of alveolar recession, probably due to periodontal disease. Most individuals also displayed slight hypoplasia, probably due to dietary deficiencies during the formation of the tooth crown in childhood.

Many of the burials contained fragments of animal bone and three (nos 21, 63 and 64) were only animal bone. Many of the burials also contained intrusive human bones. (The burials affected are noted in table 1). Some of these intrusive fragments can be attributed to the graves that cut or are cut by the burial in question; others must come from a more general disturbance of the graveyard area.

TABLE 1 - INFORMATION SUMMARY

Burial no	Sex	Age (years)	Stature (cms.)	Intrusive bones: Animal	Intrusive bones: Human	Notes
1	Prob. F	25-35		*		
2		Adult			*(J)	
3	Prob. M	17-25				
4	-	Infant				
5	Poss. F	35-45				
6		17-25		*		
7						Parts of 2 adults
9	Prob. M	25-35				
10	Prob. F	35-45				
11	-	4-5				
12	Prob. F	Adult		*		
14	Prob. M	17-25	179			
16	-	12-16				
17		17-25				
19		Adult		*		
20	-	10±1				
22	M	25-35	167			
22B	M	25-35				
24	Prob. F	35-45	176		*(A)	
26	-	5±1			*(A)	
27		Adult		*		
28	Poss. M	25-35			*(J)	
29		Adult				
30	Poss. M	17-20	171		*(A)	
31	M	Adult	185			
32	Poss. M	Adult	171		*(I)	
34	Prob. F	17-25				
35	M	25-35		*		
36	Prob. F	Adult			*(A)	
37	Prob. M	25-35		*	*(A)	
38	M Prob. F	25-35 17-25 15-18	168		*	
39	-	12±1				
40	M	25-35		*		

Burial no.	Sex	Age (years)	Stature (cms.)	Intrusive bones: Animal	Intrusive bones: Human	Notes
41	Prob. M	25-35			*(J)	
42	-	2½-3			*(A)	
43	(	17-25				Parts of at least 4 adults
	(	17-25			*(A)	
	(	25-35				
44	Prob. F	25-35			*(A)	
45	F	35-45				
46	Poss. F	35-45				
47	-	2½-3		*		
48		7±1				
49		17-25		*	*(A)	
50	Poss. F	Adult				
51		3-4			*(A)	
52	Poss. M	17-25				
53	Prob. F	17-23				
54	M	25-35				
55	Prob. F	17-25			*(I)	
56	(Prob. F	25-35	)	*		
	(		)			
	(F	17-25	)			
57	Poss. F	17-25	161			
60	Prob. M	25-35				
61	Adult					
62	Prob. F	17-25				
65		13-20				
66	Poss. F	Adult				
67	-	Infant/ Juvenile				
69	Poss. M	35-45				
70	F	17-25				
71	F	17-25				
72	Prob. F	35-45	159			
73		Adult				
74	F	15-23				
75	Prob. M	Adult				
76						Probably human bone

Burial no.	Sex	Age (years)	Stature (cms.)	Intrusive bones: Animal	Intrusive bones: Human	Notes
78						Probably human bone
79		Adult?				
80	M	35-45				
81	-	5±1				
83	Poss. M	Adult			*(A)	
85	Prob. M	25-35		*	*(A)	
86	Poss. M	Adult				
87		Infant		*	*(J & A)	
89	-	2±½				
91	Poss. M	17-25	173	*	*(I & J)	
92	-	6-9 months				
93	-	10±1		*	*(I)	
97	-	2±½		*		
99	Poss. F	25-35				
100	-	2-3				
101		15-25				
102		35-45				
103		Adult			*(I)	
Feature K		20-30		*		
Feature L	-	3-6 months		*	*(J)	
Fill of) Garden) Pond)	-	3-6 months				

Key to table:-

Intrusive human bones are labelled A, J or I depending whether adult, juvenile or infant bones were noted.

Description of burials

Burial 3

There were slight traces of osteo-arthritis (degenerative joint disease) in the spine.

Burial 9

Most of the joints showed some osteo-arthritis. The coronoid fossa in the right humerus was perforate.

Burial 12

The animal bones were from the bag marked "residual in that fill of grave 12".

Burial 22

The right mandibular canine had a double root.

Burial 26

The intrusive adult bone was labelled "residual in fill".

Burial 30

All four third molars were congenitally absent. Two premolars ($\underline{5}|$ and $\overline{5}|$ were rotated anticlockwise through 45°. The "bones residual in fill" included three femora, probably from separate individuals of which two were male, and pelvis fragments, one of which was definitate female.

Burial 37

The skull was metopic.

Burial 38

This was a very confusing collection of bones from a number of different individuals. The post cranial skeletons, from which sexes were determined, have been tentatively linked with the teeth and jaws, from which ages were determined. This has given the correlations contained in table 1 which could be correct. What can be said without doubt though is that at least three individuals are represented including one male and one female (maximum stature 168 cm.), and that the jaws present are from three individuals aged 17-15, 15-25 and 25-35.

Burial 45

This individual shows severe osteo-arthritis in parts of the spine. The lower right third molar ($\overline{8}|$) is also interesting in that it lies horizontally unerupted in the jaw. It is not impacted on the second molar so it is odd that it should never have erupted.

Burial 48

This juvenile skull has many wormian bones all along the lambdoid suture.

Burial 52

The fragment of mandible surviving shows that $\overline{8}|$ was congenitally absent.

Burial 53

These bones were well preserved (for the site) with virtually no surface erosion. This good condition enabled some pathological changes to be noted, viz. widespread depressions in the periosteum and also some extra periosteal boned deposition. This is probably indicative of some widespread soft tissue infection at the time of death.

Burial 55

The spine in this burial showed Schmorl's nodes which are small irregular depressions in the articular surfaces of the vertebral bodies. These are caused by a normal but genetically linked degeneration which leads to herniation of the intervertebral disc material.

Burial 70

The teeth showed marked overbite, that is the upper teeth did not meet the lower ones but overlapped in front of them.

Burial 80

The arrangement of teeth in the mandible was very odd as there was no left second incisor. The canine lay next to the first incisor with a gap between it and the first premolar. This movement of the canine probably only took place after the lateral incisor had been lost and was brought about by the sharp bend of its root.

Population summary

The results are tabulated below (Table 2). Only the individual(s) who comprise the majority of the burial are considered as the more fragmentary remains are probably further parts of individuals already represented.

Table 2 - Population summary

		Male	Female	Total
Infants	0-1			3
	1-3			8
Juveniles	3-11			7
	11-18			4
Adults	17-25	5	10	21
	25-35	12	4	18
	35-45	2	6	9
	"Adult"	5	4	17

Note: The 'Total' column includes individuals for whom no sexing was possible

About three-quarters of the adults were sexed and among these males and females are evenly represented, as one would expect. What is surprising is the small number of infants found with only one of those under one year old coming from a grave. This would seen to indicate that infants were not in general buried in the main graveyard, or at least not in the part of it that has been excavated.

References

1. McCALL, J.O. and WALD, S.S. (1963) Clinical Dental Roentgenology pp 149, 157
2. BROTHWELL, D.R. (1972) Digging up Bones p.60
3. BROTHWELL, D.R. Ibid. p.69
4. TROTTER, M. and GLESER, G.C. (1958) Amer. J. Phys Anthrop. 16 p. 79 - 123.