ANCIENT MONUMENTS LABORATORY

REPORT

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TITLE The Human bonesfrom "oughridge Hill, Wilts

AM1. Rpt of 3298

The Human Bones from Roughridge Hill, Wilts.

300

A.M. Lab. nos. 790086 -790106
791612

Period: Neolithic and Bronze Age

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March 1980

A large sample of both cremated and inhumed material was presented to the Lab. for examination from sites A,B and C at Roughridge Hill. Most of the bone was in an extremely fragmentary condition so that the minimum amount of analysis only was possible, ie. to differentiate between human and animal bone and to separate the various parts of the skeleton. In only a few cases was an estimate of age and sex possible. In no cases was it feasible to measure stature and in only one individual was the bone sufficiently well preserved for examination for any anomalies or pathology. Nowhere was it practicable to make an estimate of the minimum number of individuals represented at any of the three sites. However it was usually possible to state whether each sample of bone represented one or more individuals (the material was too fragmentary for greater accuracy than more-than-one individual). Instances of possible associations of bone finds (both cremations and inhumations) are discussed in more detail under individual numbers in the Catalogue of Finds.

The Cremations

The cremated human bone was passed through sieves ranging from 1mm. to 5mm. to facilitate identification of the individual fragments. Where possible fragments of skull, mandible, long bones and extremities, ribs, vertebrae, pelvis and scapulae were sorted and weighed to give some indication of the relative proportions of bones present. In all cases samples of skull and long bones and extremities provided the majority of the material and hence the greatest weights but in no one individual was there a large proportion of the skeleton present. For example the most cremated bone was for no. 387 (Site B) for which the total weight was less than one kilogramme. When it is remembered that the average dry weight of an adult skeleton ranges between two and four kilogrammes (and usually nearer four) it can be seen how small, relatively speaking, the samples from Roughridge Hill are.

The cremated bone was also examined for degree of burning, (colour, amount of splitting and cracking) and the general size of fragments. It was found that for all the material from Roughridge Hill the degree of burning was fairly high, most of the bone being grey or whitish in colour and very cracked. Further the cremated bone was all in very small fragments, maximum length of any bone being 4·8cm. (no. 495 from Site C); this may have

been in part due to post-burning crushing but also most of the material does not seem to have been found associated with urns or other containers and it is therefore suggested that the small size of the fragments provides additional evidence for a high degree of burning at cremation. (It should be noted that although a great degree of burning has always been possible at cremations by no means has it always been found to be the case in prehistoric material and it has been suggested that the position of the body in the pyre may well be of major importance in this, as well as the length of time of the cremation (Wells, 1960).

In summary the cremated bone from Roughridge Hill represents small samples of highly burned, small fragments of human bone for the most part identifiable only as human.

The Inhumations

The inhumed human bone was sorted and individual bones were identified. Where possible broken bones were reconstructed but although generally in a better condition than the cremated material the inhumed bone was still rather poorly preserved and reconstruction was fairly minimal.

As with the cremations it was not possible to establish a minimum number of individuals but the inhumations, where necessary, were assessed for the presence of one, or more than one, individual. Where possible observations were made for age and sex but little further analysis was feasible.

For the most part age was assessed by the dentition, cranial sutural fragments and the developmental maturity of the skeleton. Sex was derived from the pelvis and the long bones. Full details of the varying methods used for each individual from Roughridge Hill are given in the Catalogue of Finds. It was not possible to make an estimate of stature for any of the inhumed bone present, nor was any of the bone in a good enough condition for analysis of any anomalies of pathology.

In summary like the cremated material from Roughridge Hill the inhumed bone consisted of small samples of poorly preserved bone for which such analysis as there was amounted to no more than assessment of age and sex, and no final estimate of the minimum number of individuals present was possible.

Conclusion

A small sample of human bone from Roughridge Hill was examined at the Lab. The material came from three separate areas of the site and apparently ranged in time from the Neolithic to the Bronze Age. Site A yielded the most human bone but that from Site B was best preserved. The material from Site C was poor in both quality and quantity. Since most of the bone was very poorly preserved it was not feasible to estimate the number of individuals at the site, nor, except in a few cases, was analysis of the bone other than as human possible.

It cannot be stated on the bone evidence available **whether** this material represents a single population sample or samples from different populations, nor is it clear to what extent the burials represent use of Roughridge Hill through time. The only bone evidence to this effect is that whereas Site A and Site B included both cremations and inhumations Site C consisted only of cremations. However this may indicate a difference in burial practice between groups as much as a change through time.

References Mentioned in the Text

Brothwell D.R. (1972): Digging Up Bones: The Excavation, Treatment and Study of Human Remains. British Museum (Natural History), London. 2nd ed.

Schour J. and Massler M.: (1941) The Development of the Human Dentition. J. Amer. Dent. Assoc. 28. 1135.

Wells C. (1960): A Study of Cremation. Antiquity 34. 29 - 37.

Table 1: The Material from Roughridge Hill Listed By Context.

Site A

Context	Find no.	AML no.	Type of Find (Cremation/Inhumation)
Q1T1	197	790090	Cremated bone
Q1T4	319/2	791612	Tooth
Q2T5	52	790087	Cremated bone
Q2T8	105/2	791612	Inhumed bone
"	110/2	"	Tooth
"	145/2	"	Inhumed bone
"	160	"	Inhumed bone
"	45/2	"	Inhumed bone
"	79/2	"	Inhumed bone
Q3T3	21	790086	Cremated bone
"	57	790088	Cremated bone
"	3/2	791612	Inhumed bone
"	23/2	"	Inhumed bone
"	32	"	Inhumed bone
Q3T13	195/2	791612	Inhumed bone
Q4T9	102	791612	Inhumed bone
Q4T9-10	305/2	"	Inhumed bone
Q4T10	131/2	"	Inhumed bone
"	89/2	"	Inhumed bone
Thurnam's Pit	377	790091	Cremated bone

Table 1 cont:-

Site B

Context	Find no.	AML no.	Type of Find
Q1T6	515b	790093	Cremated bone
Q2T9 (Thurnam's Pit)	381	790095	Cremated bone
Q3T7/8	411/2	791612	Inhumed bone
Q3T8	240/2	"	Inhumed bone
"	268/2	"	Inhumed bone
"	331/2	"	Inhumed bone
Q4T12 Pit 10/11	376	790094	Cremated bone
" "	387	790096	Cremated bone
Q4T13	357/2	791612	Inhumed bone
NW/SW Baulks of Thurnam's Pit	472	790097	Cremated bone

Site C

Q2T13	434/3	791612	Cremated bone
" Pit 6	494B	"	Cremated bone
" Pit 6a	489	790101	Cremated bone
" Pit 6a	495	790102	Cremated bone
" Pit 7	483	790099	Cremated bone
" Pit 10	456	790103	Cremated bone
" Pit 10	497C	791612	Cremated bone
Q3T5 Thurnam's Pit	443b	790098	Cremated bone
Q4T9 Pit 1	453	791612	Cremated bone
" Pit 7	512b	790105	Cremated bone
Baulk Thurnam's Pit	508	790104	Cremated bone
NW Baulk	487	790100	Cremated bone
-	513b	790106	Cremated bone

The Human Bones from Roughridge Hill, Wilts. - Catalogue of Finds

Site A

A.M. Lab. nos. 790086 - 91
791612

Period: Neolithic and Bronze Age.

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AML no.	Find no.	Feature no.	Description and Report
790086	21	Q3T3	This bag contained a very small quantity of material - total weight was 8·5 grams. One small fragment of cremated human bone was identified.
790087	52	Q2T5	A small fragment of cremated human skull. Maximum length: 1·6cm.
790088	57	Q3T3	This bag contained several small fragments of burnt human bone. Individual identification of the bones was not possible, with the exception of one fragment of tooth root. Weight of the sample was 8·7gms. Maximum length: 3cm.
790089	66	Q2T8	This was a fragment of charcoal - not bone.
790090	197	Q1T1	Some very small fragments of burnt human bone. There was nothing greater than one centimetre in length, total weight of the contents being 6gms. Individual identification was not feasible.
790091	377	Thurnam's Pit	The total weight of this sample was 28·5gms. The fragments were all of cremated human bone and included three teeth, two incisors and a tentatively identified premolar. A distal phalanx was also observed. Although the bone was all white in colour the appearance and condition of the teeth would suggest that the bone had been incompletely burned and the size of the fragments was due to crushing either after burning or after burial. This sample was labelled as being associated with pot no. 378. There is no evidence to indicate that these remains are those of more than one individual. If, therefore they do represent one individual who was buried

AML no.	Find no.	Feature no.	Description and Report
	377 cont.		in pot 378, then it must be noted that they represent an extremely small proportion of the whole, the average skeleton normally weighing between two and four kilograms.
791612	105/2	Q2T8	This bone is a fragment of human mandible. The only tooth present, in situ, is the left mandibular second molar. The socket for the adjacent third molar is also present, the tooth it appears having been lost ante-mortem. An age for this mandible was estimated from the degree of wear upon the surface of the mandibular second molar. The dental chart of Brothwell (1972) was used. The mandible was accordingly aged at 35-45 years. With regard to disease the second molar has a carious lesion on its distal surface. This may well have been associated with a caries on the third molar, the infection having spread from one tooth to the other. The large cavity in the body of the mandible at the third molar, most probably caused by an abscess supports the hypothesis of a carious third molar since abscesses are frequently associated with carious teeth. However since the tooth itself is not present this cannot be confirmed.
791612	110/2	Q2T8	a) A lower premolar - most probably second left but the tooth is rather damaged so that accurate diagnosis is difficult. Since the apex of the root is complete and the degree of wear is similar it is possible that this tooth belongs with 105/2 but there can be no certainty of this. It is only clear that this tooth belonged to an adult.

AML no.	Find no.	Feature no.	Description and Report
	110/2 cont.		There is no evidence for dental disease of any kind on the tooth. b) Animal bone.
791612	145/2	Q2T8	An anterior fragment of human mandible from which all the teeth have been lost, some ante and some post mortem. Of the area exhibiting a post-mortem tooth loss (anterior right incisor, canine and premola the sockets are complete although the wear of their superior surfaces if suggestive of extensive periodontal disease. The mandibl itself has a square chin and the mental protuberance is pronounced, partly as a result of the deep grooves for depressor labii inferioris on either side of the symphysis. These features are consistent with the specimen being that of a male individual. No age estimation was possible
791612	160	Q2T8	This fragment comes from an immature femora head (it is about seven-eighths complete). The condition of the inferior surface sugge that union with the diaphysis (shaft) had not yet begun. On the basis of the development of this femoral epiphysis the bone was aged at 12 - 15 years.
791612	45/2	Q2T8	These two fragments are both those of human skull. The larger is identified as a piece of parietal. Neither is sufficient either for ageing or for sexing.
791612	89/2	Q4T10	There were three bone fragments in this bag: a fraction of mandible (not human), a tooth and the proximal phalanx of a thumb. a) The tooth was a deciduous canine from a child of about 8 years. This age estimate was derived from the wear on the tooth, the condition of the root and the Schour and Massler chart for the development of the human dentition (Schour and Massler, 1941). b) The thumb fragment from its size belonged to an adult. It was badly damaged, most probably owing to post-mortem erosion.

AML no.	Find no.	Feature no.	Description and Report
791612	3/2	Q3T3	This bag contained two fragments - both of them human. a) A fragment of parietal bone, from the right side. The unfused piece of coronal suture gives this individual a maximum age of 35 years but it is not possible to be more specific. b) This is a mandibular first incisor tooth, left side. The occlusal surface of the tooth is very worn which would suggest that the tooth is that of a mature adult (ie. 35 years plus), rather than that of a young adult.
791612	23/2	Q3T3	This was the distal fragment of an adult human metacarpal. It was not possible to distinguish which one.
791612	102	Q4T9	The fragment of a long bone shaft. It is in a poor condition but the cross-section and density of the bone suggest that it comes from a femur or tibia.
791612	319/2	Q1T4	A human maxillary first right premolar which has been broken post-mortem. There is no evidence of dental disease but the occlusal surface has been worn which suggests a mature rather than a young individual, probably older than 35 years.
791612	305/2	Q4T9-10	This bag contained a number of human digital fragments. a) Part of one of the metatarsals of an adult. b) Two fragments (proximal) from the phalar of an adult foot. It is possible that a) and b) come from the same individual but this cannot be proved.
791612	32	Q3T3	This bag contained both animal and human bone. a) A rather damaged fragment of human radia shaft. b) Some splinters of human bone (further identification was not possible). c) The proximal extremity and part of the

AML no.	Find no.	Feature no.	Description and Report
	32 cont.		shaft of a non-human metapodial.
791612	17	Q1TR1	This was not human bone.
791612	79/2	Q2T8	This bag also contained both human and animal bone. The largest fragment was that of an animal's proximal ulna. There were six fragments of human long bone. Two of these were clearly radii from their cross-section. It was not possible to age or sex them. The damage to the surfaces of these bones was most probably due to post-mortem erosion.
791612	195/2	Q3T13	This was a small fragment of human parietal.
791612	131/2	Q4T10	A fragment of human distal humerus shaft. Age and sex not obtainable.

Site B

A.M. Lab. nos. 790092 - 97

791612

Period: Neolithic and Bronze Age.

AML no.	Find no.	Feature no.	Description and Report
790092	296		This was a fragment of non-human bone.
790093	315b	Q1T6	It was possible to identify two of the fragments of burned bone as human. No further identification was possible.
790094	376	Q4T12 Pit 10/11	This bag contained a sample of fragmentary, burnt, human bone. The size of the sample is well illustrated by the weights for the various parts given below:

Skull:	15·64 g
Teeth:	1·45 g
Long Bones and Extremities:	65·1 g
Miscellaneous fragments:	79·4 g

The last named was the largest sample owing to the extremely small size of the fragments (mostly less than one centimetre long) and thus the impossibility of certain identification.

Age

There were three tooth crowns present which supply the only evidence for an age of this individual: a permanent first molar and two permanent second molars. The size of the teeth and the lack of wear on the occlusal surfaces would suggest that the teeth had not erupted or had not yet reached full occlusion. Particularly on the state of the first molar this indicates an individual of (very approximately) 6 years of age. Owing to the lack of tooth roots it is not possible to be more positive about this estimate.

Sex

It was not feasible to sex this individual.

AML no.	Find no.	Feature no.	Description and Report
790095	381	42T9 Thurnam's Pit	This was the remains of a human cremation. The bones varied in colour from black to blue-grey to white which would indicate a fairly high degree of burning although the presence of several fragments including cancellous bone does not suggest that this was excessive. The sample is small (total weight 110·68 grams) with few identifiable pieces; however these included a fragment of mandibular condyle, several pieces of skull and long bones. There were no teeth present nor was there any evidence to suggest that there was more than one individual present. Age There were no specific indicators as to age - it may only be stated that the remains were those of an adult. Sex It was not possible to assess the sex of this individual.
790096	387	44T12 Pit 10/11	This bag contained a relatively large sample of burnt human bone. The bones were rather broken but a fair amount of identification was possible as shown by the weights table below: Skull and Mandible: 151·5 g Long Bones: 498·5 g Pelvis: 31·3 g Vertebrae (incl. sacrum): 31·1 g Hands and Feet: 21·8 g Ribs: 46·5 g Scapulae: 6·3 g Unidentified Material: 51·0 g Residue: 90·0 g There was no evidence to suggest that the remains were those of more than one individual. The bones were all whitish in colour; and this together with the amount of splitting and breakage present is indicative of a high degree of burning.

AML no.	Find no.	Feature no.	Description and Report
	387 cont.		Age It was not possible to obtain an accurate estimate of this individual's age, nevertheless the following factors were suggestive: a) There were three tooth fragments present, one from a premolar toot and two from molar teeth. They all belong to the permanent dentition. The fact that the apices of the roots were all closed would suggest an adult individual but on this evidence alone it is not possible to be more specific. b) Included among the skull remains were some cranial fragments with sutures. A piece of parietal was particularly well preserved and the depth and spacing of this fragment make it clear that fusion of this suture had not yet commenced. On the basis of these two pieces of evidenc it seems clear that the remains are those of a young adult most probably somewhere between 20 and 35 years of age. Sex It was not possible to estimate the sex of this individual.

The possibility arose that the material from nos. 376 and 387 might belong to one individual. In the light of the dental evidence (which puts 376 as a juvenile and 387 as a young adult) this does not seem likely and it must be concluded that the material, which may be indistinguishable mixed in parts, represents two, but most probably not more than two, individuals.

790097	472	NW/SW Baulks Thurnam's Pit	This was a small sample (total weight 49·2g of cremated human bone. The remains consisted, in roughly half-and-half proport of skull and long bones. There was no evidence that the bones represented more than one individual. It was not possible to estimate age or sex.

AML no.	Find no.	Feature no.	Description and Report
791612	339	Q1T6	This is a fragment of animal bone, probably from an astragalus.
791612	325/2	Q2T9	Another fragment of animal bone.
791612	357/2	Q4T13	Two fragments of human bone, one of which is a distal metacarpal.
791612	356b	Q2T1/2	A fragment of non-human bone.
791612	240/2	Q3T8	These last four bags from Site B will be discussed together on the basis that possibly they represent one individual.
791612	268/2	Q3T8	
791612	331/2	Q3T8	
791612	411/2	Q3T7/8	

The four bags listed above contained inhumed human bones, most of which were in a fairly good condition. Nos. 268/2 and 331/2 had very few bones whereas nos. 240/2 and 411/2 had far more. The bones were sorted and some reconstruction was possible. In order to establish the likelihood of these bones belonging to the same individual the contents of each bag were plotted on a skeletal chart. As had been suspected there was no duplication of any of the bones which would have made the presence of more than one individual a certainty.

240/2: This bag contained almost entirely bones from the lower half of the skeleton. The exceptions were a fragment of the proximal left ulna, a few rib fragments and a piece of the sphenoid from the skull. There were fragments of pelvis, femora, tibiae, fibulae and both feet.

268/2: This bag contained a distal left tibia and the calcaneum and talus from the left foot. There was also a fragment of distal radius shaft.

331/2: The bones were mainly from the upper left extremity and included a distal radius and ulna and a fifth metacarpal. There was further a fragment of a right metatarsal.

411/2: This bag seemed to be the converse of 240/2 in that the bones all came from the upper half of the body. There were a number of cranial fragments parts of both scapulae, a complete right clavicle, a proximal left humerus a distal right humerus, some rib fragments and carpal and metacarpal bones (these latter were not individually identified).

In summary bags 240/2 and 268/2 would appear to contain the lower half of the body whilst bags 331/2 and 411/2 belong to the upper half. The evidence for these bones representing one and the same individual is as follows:

i) There is no duplication of any of the bones present.

ii) The fragment of distal radius shaft belonging to 268/2 fits with the distal radius from 331/2.

iii) The bones would all appear to be of the same sex and age (see estimates below).

It is not possible to state with absolute certainty that these bones are all of one individual. On the other hand there is no conclusive evidence to the contrary. It is therefore most probable that the bones do all represent one individual. Certainly they come from the same area (Q3T8) with only 411/2 on the border (Q3T7/8). The fact that they come from different specific locations in that area would seem to indicate that the burial was disturbed and the two halves of the body became separated. The small amount of admixture of bone may be accounted for by the disturbance having occurred post - skeletonization.

Sex

The only bones suitable for sexing came from numbers 240/2 and 411/2.

240/2: i) A fragment of the right pelvis could clearly be sexed as female on the presence of the pre-auricular sulcus.

ii) The maximum femoral head diameter was 40·5mm., consistent with the bone being female.

411/2: i) Although the measurement could not be taken the proximal head of the left humerus was small in diameter which suggests a female.

Apart from the details listed above the general morphology and appearance of all the bones would seem to indicate a female and this was the conclusion that was reached.

Age

A number of teeth from 411/2 were present. Three first molars (the left mandibular was missing) were used for an age estimate by their wear patterns. Brothwell's chart (1972) was used. The teeth demonstrated asymmetrical wear patterns, possibly caused by disease though there was not enough evidence to prove this. With this factor taken into account the teeth were aged between 50 and 60 years.

Evidence from the rest of the bones was too fragmentary for any other ageing method to be used. It was merely possible to say that all the bones present are clearly those of an adult. There was no evidence for extensive osteoarthritis which meght have been indicative of age, however it must be remembered that its absence is not necessarily indicative of youth.

Stature

No estimate of stature was possible.

Anomalies, Pathology etc.

Anomalies, Pathology etc.

There was no evidence for any major disease or trauma on the bones. One of the rib fragments showed signs of a healed fracture but it was an isolated example.

Conclusion

From the evidence outlined above it is most probable that the bones from the four bags (240/2, 268/2, 351/2, and 411/2) represent one adult, female individual of 50 - 60 years of age.

Site C

A.M. Lab. nos. 790098 - 106
791612

Period: Neolithic and Bronze Age.

AML no.	Find no.	Feature no.	Description and Report
790098	443b	Q3T5 Thurnam's Pit	This sample contained a very small amou of burned bone, all of which was apparen human. The bone was mostly black or blue-grey which is not suggestive of a very hi degree of burning. There were 56 fragme altogether, of which 4 belonged to teet Of the rest skull, long bones, ribs an pelvis wer all recognisable, the tota weight o the sample being 14·5grams. The dental remains included two root frag ents, a complete mandibular incisor and a possible maxillary incisor the latter was too damaged for certai Age and Sex With the dental evidence it was possibl say that the remains were those of an a but it was impossible to be more precis Sex was not identifiable.
790099	483	Q2T13 Pit 7 Centre in NE Baulk	An even smaller sample than that listed above (443b), this bag contained five fragments of burned human bone (total weight 7·2g). The maximum length was 2·5cm., for a long bone shaft. A further piece of long bone measured 2·25cm. The rest was unidentifiable other than as human.
790100	487	NW Baulk	This bag contained a large amount of charcoal altogether with one fragment of burn human bone. It belonged to a vertebra, either cervical or upper thoracic. It was not possible to estimate either age or sex.
790101	489	Q2T13 Pit 6a	This sample contained only a very small proportion of human bone (total weight 20g). The fragments were all very small and so, for the most part, remained unidentified other than as human. However it was

AML no.	Find no.	Feature no.	Description and Report
	489 cont.		possible to isolate two fragments of long bone shaft (maximum length 1·8cm.), a fragment of skull, four fragments of phalanges (one of which was complete) and four tooth fragments. There was no evidence for the presence of more than one individual (see 495). Age Two of the dental fragments could be identified as belonging to:- a) part of a deciduous canine crown b) the root of a deciduous molar. The size of the complete phalanx also supports the conclusion that the remains are those of a juvenile (ie. less than ten years old).
790102	495	Q2T13 Pit 6a	A large sample of cremated human bone was examined. The weights for each part are given in the table below:

Skull:	142·5 g
Dentition:	3·5 g
Long Bones:	126·0 g
Pelvis:	20·5 g
Vertebrae:	12·8 g
Other Bones:	59·7 g (Ribs:31·8g Hands and Feet 9·5g)

Skull: This consisted mostly of small unidentifiable fragments (maximum length 4·5cm.), largely cranial although there were one or two pieces of sphenoid.
Dentition: There was a total of 18 tooth fragments, seven of which were crowns as opposed to roots. The roots were very chipped and broken but could all be identified as belonging to deciduous teeth. The crowns included a deciduous incisor or canine, two permanent premolars, a permanent first molar and two permanent incisors. All of the permanent crowns were incomplete. None of the teeth included root and crown

AFL no.	Find no.	Feature no.	Description and Report
	17; cont.		together. The permanent teeth's occlusal surfaces lacked signs of wear which suggests that they were unerupted or not fully occluded, though it is not possible to clarify which.

Long Bones: There were a large number of small fragments, the maximum length being 4·8cm. The bones could be divided into diaphyses and epiphyses since union had not yet begun. There were nine fragments of epiphysis: two femoral distal condyles; one proximal tibia; a possible proximal tibia and two proximal heads, one femoral and the other humeral. The remaining fragments could only be identified as being epiphyseal. The maximum diameter for the femoral head was 2·5cm., and for the humeral head was 2·4cm. All the remains were small in size. Of the diaphyseal fragments it was only possible to say that long bones were represented, but not which ones.

Pelvis: There were only a few fragments recognisable as pelvic, the maximum length was 2·6cm.

Vertebrae: Two vertebrae were small and the only identifiable element was the odontoid process of the axis.

Other Bones: A number of fragments of the extremities and the ribs could be identified. The remainder consisted of very small fragments which were only recognisable as human.

Age

There were a number of indicators for this individual's age:

a) The cranial bones were light in weight and thin in cross-section suggesting a juvenile rather than an adult.
b) The few cranial fragments with sutures present show no evidence for fusion.
c) The presence of a mixed dentition and

Acc. no.	Find no.	Feature no.	Description and Report
	495 cont.		the lack of wear on the occlusal surfaces of the permanent fragments indicate an individual with a maximum age of c.12 years. d) The size of all the bone fragments supports the conclusion that this is a juvenile. In particular the diameters of the femoral and humeral heads (2·5 and 2·3 cm. respectively) are approximately half of what one might expect in an adult (most adults measureing more than 4 cm.). e) The odontoid process of the axis vertebra is immature. f) None of the epiphyses present show any signs of union with any of the diaphyses, indicative of a maximum age of c.13 years. It may therefore be concluded that on the data outlined above the remains of 495 are those of a juvenile with a maximum age of 12-13 years and probably less than 10 years. Sex No estimation of sex was possible.

489 and 495

The remains from 489 were found in the same context as those from 495. On the dental evidence 489 may be judged as a juvenile of less than ten years, thus the same as 495. Although certainty cannot be reached it is highly probable that the small sample 489 represents actually part of the same individual as 495, a juvenile of less than ten years of indeterminate sex.

790103	496	Q2N13 Pit 10	Total weight 97·3g. This bag contained very fragmentary cremated remains, mostly skull with pieces of long bones, ribs, vertebrae and a tooth root also being identified. The maximum length of any of the bones was 3·1cm. The only indication of age came from the skull whose size and thickness suggested a young individual. It was not possible to make an estimate of sex.

Accession no.	Find no.	Feature no.	Description and Report
790104	503	Bulk - Thurnam's Pit	A very small amount of cremated human bone mostly of shaft and skull. The size and thickness of the cranial fragments is suggestive of an adult individual. It was not possible to estimate sex.
790105	512b	Pit 7	There were four fragments of human bone in this sample:- i) An adult tooth root with part of the crown. ii) A part of a probable broken carpal bone. iii) Two pieces, of 4·2 and 1·7cm., of long bone shaft. The bones would appear to be those of an adult. No sex estimate was possible.
790106	513b		This bag contained a very small sample of human bone. Two fragments of skull and one of long bone shaft could be identified. No estimate of age or sex was possible.
791612	453	42T5 Pit 1	Two fragments of burned human bone.
791612	454/3	42T5	Two fragments of burned human bone, probably skull.
791612	447	Pit 3	Various fragments of burned bone, none of them human.
		42T5	
	464		
	461		
791612	494B	42T5 Pit 6	Several fragments of burned bone. One or two splinters were human - the rest was not.
791612	497B	42T5 Pit 10	Several fragments of burned bone. A few pieces were human but the rest was animal.