

ANCIENT MONUMENTS LABORATORY

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TITLE

The human bones from Wanborough,
Wilts

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The Cremations

Five cremations were examined in the laboratory. Each was medium sized, well fragmented and cremated and none contained more than one individual. Cremation 7 was mainly animal bone but the human bone in it probably represented one individual. The minimum number of individuals therefore was estimated at five.

The human bones were examined for demography (age, sex and stature), anthropology (metrical and morphological variables) and for pathology. The results by individual for bone preservation, sex, age, stature, pathology and weight are given in the catalogue (attached) together with the methods which produced these results. No anthropology was noted in this population. The results are summarised in Table 1.

Demographic Results

There were two adults and one young adult. None of the individuals could be sexed or the statures estimated.

Pathological Results

Slight porotic hyperostosis was present on four skulls ^{fragments} from cremation 6 (adult). No further comments were possible and no other pathology was noted.

Burial no.	Sex	Age	Pathology	Weight
3	-	young adult	-	601g
4	-	adult	-	164g
5	-	-	-	375g
6	-	adult	✓	453g
7	-	-	-	-

Table 1 The Results for the cremations from Wanborough

The Inhumations

Some of the material from this site has already been studied in the Ancient Monuments Laboratory. (Bailey 1973, Keepe 1973)

21 inhumations were examined in the laboratory; the minimum number of individuals was estimated at 19. Burials 35 and 36 were non human, and the bone from 153 belonged to the same individual as that from 156.

Observations were made for demography (age, sex and stature), anthropology (metrical and morphological variables) and pathology. The details by individual for bone preservation, sex, age, stature and pathology are given in the catalogue (attached) together with the methods which produced these results. The information on the anthropology was kept in the archive as it was not considered justifiable to comment on the small number of observations made. The results are summarised in Table 2.

Demographic Results

The ages of each individual could be determined, and the results can be found in Table 3. As the number of individuals was small it was not considered justifiable to comment further about these.

Nine of the individuals could be sexed. There was one female, one probable female, three males and four probable males.

The stature of only two individuals could be determined: 1.55m (5'1") for burial 156 (female, about 20 years) and 1.71m (5'7½") for burial 174 (male, 17-25 years).

Pathological Results

Dental

Two of the individuals had slight periodontal disease, two medium and two considerable. There were six cases of slight deposition of calculus and one of medium, mainly on the molar teeth. Enamel hypoplasia was present in three cases.

There were two abscesses on the buccal surfaces of the left maxillary first molar socket and the right maxillary first molar socket in Burial 18 (male, 35-45 years).

There was a medium ^{size} caries on the mesial and occlusal surfaces of the right mandibular first molar (burial 12, ?female, 25-35 years) and on the mesial interstitial margin of the right maxillary second molar (burial 18, male, 35-45 years). Burial 174 (male, 17-25 years) had a small caries on the occlusal surface of the left mandibular first molar, and also on the mesial surface of the left maxillary first molar.

There was slight pitting around the unerupted permanent maxillary second and third molars in Burial 19 (8-10 years). No further comments were possible.

Skeletal

Much skeletal pathology was noted and is described below. In most cases no further comments were possible.

There was one case of slight porotic hyperostosis on the skull of burial 15 (male, 35-45 years) and three of slight cribra orbitalia (burial 16, ?male, 45+ years; burial 18, male, 35-45 years; burial 156, female, about 20 years).

There were two cases of periosteal new bone formation on the skull. Burial 8 (?male, 17-25 years) had sub periosteal new bone on the endocranial surface of the occipital bone mainly following the sagittal sinus. Burial 156 had widespread closely adhering endocranial new bone formation. No further comment was possible.

The long bones also showed signs of sub periosteal new bone. Burial 19 (8-10 years) had new bone formation on the shafts of the right and left fibulae, both ulnae and radii and on the medial aspects of the left and right calcanei. Burial 20 (birth \pm) had new bone growth on many of the bones, particularly on one tibia where it encapsulated the shaft and had the appearance of an involucrum. It was suggested that this was the result of an infection, the precise cause of which could not be specified. There was also slight periostitis on the lateral, medial and anterior surfaces of the right tibia, and on the medial aspect of the right calcaneum (burial 24, adult), and on both femora and humeri of burial 156 (female, about 20 years).

There was the development of osteophytes on two cervical vertebral bodies and on the intervertebral facets of two separate cervical vertebrae (burial 12, ? female, 25-35 years) and on the articular margins of the right distal humerus, the right distal femur and the left mandibular condyles of burial 15 (male, 35-45 years). There were also osteophytes on burial 22 (?male, 25+ years) on all the vertebrae, on the left and right clavicles, the head of the left humerus and on the facet of one rib, and burial 174 (male, 17-25 years) on the margins of the cervical and thoracic bodies and intervertebral facets, and on the articular surfaces of the long bones at the shoulder, elbow, wrist and hip joints.

The development of osteophytes with porosity on the vertebral bodies, and eburnation with porosity on the intervertebral facets was seen on virtually all the vertebrae of burial 15. Gross osteophytes and porosity of the right inferior facet of the atlas and the left superior facet of the axis (burial 22, male, 45+ years) was probably due to arthritis.

Large schmorl's nodes were present on the superior bodies of two separate thoracic vertebrae (burial 17, adult) but no further comment

could be made.

There were two cases of osteochondritis dissecans; burial 11 had this lesion on the proximal articular surface of the first right metatarsal, and burial 156 on the proximal end of the first proximal foot phalanx.

Burial 174 (male, 17-25 years) had a femur whose head was flattened and lipped at the margins. It had large pits and irregularities on the surface of the head and was mushroom shaped. There was *some slight* shortening of the neck *but no* misalignment of the head or neck. The *right* ^{*innominate*} _{*of*} this individual had a shallowed and enlarged acetabulum, but this was not out of position and the acetabular rim was still present. It was lipped very slightly in on small area. It was suggested that the most likely cause was Perthes disease rather than any other affection of the hip. No further comment could be made.

Plate

<u>Burial no.</u>	<u>Sex</u>	<u>Age</u> (in years)	<u>Stature</u>		<u>Pathology</u>
			<u>Metric</u> (in m)	<u>Imperial</u>	
8	?male	17-25	-	-	✓
11	?male	20-25	-	-	✓
12	?female	25-35	-	-	✓
13	-	under 20	-	-	✓
14	-	under 16	-	-	-
15	male	35-45	-	-	✓
16	?male	45+	-	-	✓
17	-	over 25-30	-	-	✓
18	male	35-45	-	-	✓
19	-	8-10	-	-	✓
20	-	birth [†]	-	-	-
21	-	birth [†]	-	-	-
22	?male	45+	-	-	✓
24	-	adult	-	-	✓
30	-	birth [†]	-	-	-
31	-	birth [†]	-	-	-
45	-	birth [†]	-	-	-
156	female	c.20	1.55	5'1"	✓
174	male	17-25	1.71	5'7½"	✓

Table 2 The Results for the inhumations from Wanborough

<u>Age</u>	<u>No.</u>
Birth [†]	5
8-10 years	1
Under 16 years	1
Under 20 years	1
17-25 years	4
25-35 years	1
35-45 years	2
45+ years	2
Adult	2

Table 3 The age distribution of the inhumations from Wanborough

The Catalogue of Human Bones from Wanborough, Wiltshire

The Cremations

Cremation 3

Bone preservation: moderate, about half of the individual was present

Sex: -

Age: young adult based on the absence of endocranial suture fusion

Stature: -

Pathology: -

Weight: 601g

Cremation 4

Bone preservation: moderate, most of the skull and appendicular skeleton was represented

Sex: -

Age: adult, based on the size of the bones

Stature: -

Pathology: -

Weight: 164g

Cremation 5

Bone preservation: moderate, most of the individual was represented

Sex: -

Age: -

Stature: -

Pathology: -

Weight: 375g

Cremation 6

Bone preservation: moderate, most of the individual was represented

Sex: -

Age: adult, based on epiphyseal fusion (Brothwell 1981)

Stature: -

Pathology: *Slight porotic hyperostosis on four skull fragments.*

Weight: 454g

Cremation 7

A medium sized, poorly fragmented cremation containing mainly animal bone. No further observations were possible.

The Inhumations

Burial 8

Bone preservation: very good, only the skull was represented

Sex: ?male, based on skull morphology

Age: 17-25 years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was medium periodontal disease, slight deposition of calculus and enamel hypoplasia.

Skeletal

There were slight sub periosteal deposits of new bone on the endocranial surface of the occipital bone, mainly along the line of the superior sagittal sinus. No further comment was possible.

Burial 11

Bone preservation: moderate, only the skull and feet were represented

Sex: :male, based on skull morphology

Age: 20-25 years, based on epiphyseal fusion and molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was slight periodontal disease and deposition of calculus

Skeletal

There was osteochondritis dissecans on the proximal articular surface of the right first metatarsal.

Burial 12

Bone preservation: moderate, most of the skeleton was represented

Sex: ?female, based on skull morphology

Age: 25-35 years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was considerable periodontal disease, very slight deposition of calculus; enamel hypoplasia was present. There was also a medium sized carious cavity on the distal and occlusal surfaces of the right mandibular first molar.

Skeletal

There was medium trabecular cribra orbitalia on the left and right orbits.

There was slight development of osteophytes on two bodies and an intervertebral facet of two separate cervical vertebrae. This was also present on the distal articular surface of the right radius.

Burial 13

Bone preservation: moderate, only the tibiae and skull were represented

Sex: -

Age: under 20 years, based on epiphyseal fusion (Brothwell 1981)

Stature: -

Pathology: -

Burial 14

Bone preservation: moderate, only the skull and upper appendicular skeleton was represented

Sex: -

Age: under 16 years, based on epiphyseal fusion (Brothwell 1981)

Stature: -

Pathology: -

Burial 15

There was an accessory thoracic vertebra present which could not have belonged to Burial 15. It was considered that there was insufficient evidence to include this as a separate individual.

Bone preservation: moderate, most of the skeleton was represented

Sex: male, based on skull morphology

Age: 35-45 years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was slight periodontal disease, medium calculus and very marked enamel hypoplasia.

Skeletal

There was very slight pitted cribra orbitalia on the left orbit of the skull, and slight porotic hyperostosis on most of the skull vault.

There was slight development of osteophytes at the articular margins of the left mandibular condyle, the right distal humerus and the right distal femur. Also present to a greater degree was porosity and eburnation on all the cervical intervertebral facets and on one thoracic vertebra. It should be noted that only the cervical and one thoracic vertebra were present.

Burial 16

Bone preservation: poor, only the skull was represented

Sex: ?male, based on skull morphology

Age: 45+ years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was considerable periodontal disease and slight deposition of calculus.

Skeletal

There was slight porous cribra orbitalia on both of the orbits.

Burial 17

Bone preservation: moderate, only the humerus and vertebrae were represented

Sex: -

Age: over 25-30 years, based on epiphyseal fusion (Brothwell 1981)

Stature: -

Pathology: Skeletal

There were schmorls nodes on the superior bodies of two separate thoracic vertebrae.

Burial 18

Bone preservation: moderate, most of the skeleton was represented

Sex: male, based on pelvic and skull morphology

Age: 35-45 years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was a medium sized abscess at the left maxillary first molar at the apex of the root, and a small abscess on the buccal surface of the right maxillary first molar. Also there was a small carious cavity on the mesial interstitial margin of the right maxillary second molar probably as a result of the abscess on the first molar.

There was medium periodontal disease, a medium deposition of calculus and slight enamel hypoplasia.

Skeletal

There was slight trabecular cribra orbitalia on both the left and right orbits, with that on the left being more severe.

There was slight osteophytic lipping on the superior and inferior body of the fourth and fifth cervical vertebrae, on both glenoid fossae of the scapulae, one facet of a rib, the distal articular surface of the left radius and on the left acetabulum. No further comments were possible.

Burial 19

Bone preservation: moderate, most of the skeleton was represented

Sex: -

Age: 8-10 years, based on dental development (Brothwell 1981)

Stature: -

Pathology: Dental

There was periostitic pitting around the socket of the second and third right maxillary molars which were unerupted. Also there was slight deposition of calculus.

Skeletal

There was sub periosteal new bone on the shafts of the left and right ulna and radius, both fibulae and the medial aspect of both calcanei. No further comments were possible.

Burial 20

Bone preservation: very good, most of the skeleton was represented

Sex: -

Age: birth[±] (Stewart 1979)

Stature: -

Pathology: Skeletal

There was sub periosteal new bone formation on many of the long bones particularly on one tibia where it encapsulated the shaft and had the appearance of an involucrum. It was suggested that this was the result of an infection, the precise cause of which could not be specified.

Burial 21

Bone preservation: very good, most of the skeleton was represented

Sex: -

Age: birth[±] (Stewart 1979)

Stature: -

Pathology: -

Burial 22

Bone preservation: poor, only the skull, vertebrae, clavicles and humerus were represented

Sex: ?male, based on skull morphology

Age: 45+ years, based on molar attrition (Brothwell 1981)

Stature: -

Pathology: Dental

There was considerable periodontal disease; enamel hypoplasia was present.

Skeletal

There was slight development of osteophytes on most of the vertebral bodies, the left and right clavicles, the head of the left humerus and on a facet of one rib. There were gross osteophytes and porosity on the right inferior intervertebral facet of the atlas vertebra and the right superior intervertebral facet of the axis vertebra. No further comment was possible.

Burial 24

Bone preservation: very good, only the right leg was represented

Sex: -

Age: adult, based on epiphyseal fusion

Stature: -

Pathology: Skeletal

There was slight periostitis on the medial, lateral and anterior surfaces of the right tibia and on the medial aspect of the left calcaneum. No further comment was possible.

Burial 30

Bone preservation: very good, only the skull and appendicular skeleton was present

Sex: -

Age: birth[±] (Stewart 1979)

Stature: -

Pathology: -

Burial 31

Bone preservation: very good, most of the skeleton except the skull was represented

Sex: -

Age: birth[±] (Stewart 1979)

Stature: -

Pathology: -

Burial 35

This contained only an infant pig humerus.

Burial 36

This contained only an infant pig tibia.

Burial 45

Bone preservation: very good, only the appendicular skeleton was represented

Sex: -

Age: birth[±] (Stewart 1979)

Stature: -

Pathology: -

Context 156

It was found on examination of the material that 153 and 156 were from the same individual.

Bone preservation: good, most of the skeleton was represented

Sex: female, based on pelvic morphology and long bone metrics

Age: about 20 years, based on epiphyseal fusion (Brothwell 1981)

Stature: 1.55m [±] 0.04 c. 5'1" (Trotter 1970) based on the right and left femora and tibiae

Pathology: Skeletal

There was medium porotic cribra orbitalia on the left and right orbits.

There was widespread closely adhering endocranial new bone formation over the entire inside of the skull. Also there was slight periostitis

on the midshaft of the left and right femora and on the midshaft of the left and right humeri. It was not possible to make any further comment.

There was development of osteophytes on the inferior and superior intervertebral facets of the fourth thoracic vertebra and on the superior body of the fifth thoracic vertebra. No further comment was possible.

There was osteochondritis dissecans on the proximal articular surface of the first foot phalanx.

Context 174

Bone preservation: very good, all of the axial and appendicular skeleton was represented

Sex: male, based on pelvic and skull morphology

Age: 17-25 years, based on molar attrition (Brothwell 1981)

Stature: $1.71m \pm 0.04$ c. $5'7\frac{1}{2}"$ (Trotter 1970) based on the right humerus

Pathology: Dental

There were small carious cavities on the occlusal surfaces of the left mandibular first molar and on the mesial surface of the left maxillary first molar. There was also slight enamel hypoplasia on both the teeth of the maxilla and mandible.

Skeletal

There was development of osteophytes on all the cervical and thoracic vertebral bodies and most of the intervertebral facets. There were also marginal osteophytes on the long bones at the shoulder, elbow, wrist and hip joints and also the development of osteophytes and porosity on the facets of ten ribs.

The femur head was flattened and lipped at the margins. It had large pits and irregularities on the surface of the head and was mushroom shaped. There was ^{some slight} shortening of the neck ^{but no} misalignment of the head or neck. The pelvis on this individual had a shallowed and enlarged acetabulum, but this was not out of position and the acetabular rim was still present. It was lipped very slightly in one small area. It was suggested the most likely cause was Perthes Disease.

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