SITE 1759

The Human Bones from Great Hale, Lincs

Ancient Monuments Lab. Report No. 4534

Four groups of human bone were examined in the laboratory; the minimum number of individuals was estimated as eight. There were at least two individuals present in Burial 3 and at least four individuals present in the unrelated fragments.

The bones were examined for demography (age, sex and stature), anthropology (metrical and morphological variables) and pathology. The results 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 1.

Demographic Results

Each of the eight individuals could be aged and the results are summarised in Table 2.

There was one female, two ? females, one male and one ? male in the sample population.

The stature of only two individuals could be determined. Burial 1 (? female, 35-45 years) at 1.53, (5'½") and Burial 3A (female, 45+ years) at 1.52m (5'0")

No further observations could be made on the demography.

Pathological Results

Dental

Burial 1 (?female, 35-45 years) had a large abscess on the buccal and lingual surfaces of the right mandibular first molar and also a carious cavity on the mesial surface of the tooth , probably associated with the abscess.

There were two cases of enamel hypoplasia (Burials 1 and 3a); there were three cases of periodontal disease (Burials 1,2 and 3), and slight, medium and considerable deposition of calculus was seen on Burials 3a, 2 and 1 respectively. No further dental pathology was noted.

Skeletal

There was slight development of osteophytes on Burial 1 (?female, 35-45 years) on all the vertebral bodies and intervertebral facets, and also at all the major joints of the body. There was also osteophytosis on two separate thoracic vertebrae of Burial 12 (12-16 years).

Widespread slight development of osteophytes at the margins of all the major joints and the vertebral bodies and intervertebral facets was also seen in Burial 3A (female 45+ years) and 3B (?male

old adult) and it was seen on the femur and tibia of UF D. The head of the femur had gross degeneration with development of osteophytes and shrinkage in size. The distal condyles had gross development of osteophytes on both the medial and lateral sides. On the medial condyle there was an area of gross eburnation and porosity with an ivory like appearance and shallow grooves produced by bone on bone friction. No further comment was possible.

There was slight periostitic new bone growth on Burial 1, on the internal surface of two ribs and on UF D where there was slight trabecular periostitis on the medial aspect of the top third of the shaft.

On the superior intervertebral facets of the fourth cervical vertebra of Burial 2 there were small pitted lesions, but no further comment was possible.

There were two fully united fractures on one right rib of Burial 1 which had no displacement, and also on that skeleton there was an exostosis on the lower shaft of the right humerus probably caused by the ossification of a ligament.

No other pathological conditions were noted.

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12th March 1985

Burial no.	Sex	Age (in years)	Stature		Pathology
			Metric	Imperial	
1	?female	35-45	1.53	5'½"	✓
2	-	12-16	-	-	✓
3A	female	45+	1.52	5'	✓
3B	?male	old adult	-	-	✓
UF A	male	45+	-	-	✓
UF B	-	c.25	-	-	-
UF C	-	young adult	-	-	-
UF D	-	?old age	-	-	✓

Table 1 The results for the inhumations from Great Hale, Lincs

Age (in years)	No. of individuals
12-16	1
c.25	1
35-45	1
45+	2
Young adult	1
Older adult	2

Table 2 The distribution of ages at death at Great Hale, Lincs.

The Catalogue of Human Bones from Great Hale, Lincs

Burial 1

Bone preservation: quite good, most of the skeleton was represented
Sex: probably female, based on pelvic and skull morphology
Age: 35-45 years, based on molar attrition (Brothwell 1981)
Stature: 1.53m ± 0.04 c. 5'½" (Trotter 1970) based on the femora
Pathology: Dental

There was an abscess on the buccal and lingual surfaces of the socket of the right maxillary first molar and also a carious cavity on the mesial surface of that tooth, probably associated with the abscess. There was medium periodontal disease, considerable deposition of calculus and enamel hypoplasia.

Skeletal

There was slight periostitic new bone growth on the internal surface of two right ribs.

There was an exostosis on the right humerus shaft in the lower third. This was probably due to the ossification of a ligament.

There was slight development of osteophytes, and porosity on all the vertebral bodies, on the intervertebral facets, on the femora, humeri, ulnae and ribs. No further comments were possible.

Burial 2

Bone preservation: quite good, all of the skeleton was represented
Sex: -
Age: 12-16 years, based on dental development and epiphyseal fusion (Brothwell 1981)
Stature: -
Pathology: Dental

There was slight periodontal disease and slight deposition of calculus.

Skeletal

There was slight development of osteophytes on the intervertebral facets of two separate thoracic vertebrae.

There were small pitted lesions on the superior intervertebral facets of the fourth cervical vertebra but no further comment could be made.

One right rib had two fully united fractures with no displacement. No further comment was possible.

Burial 3

This burial contained at least three individuals, but one was

represented by only one clavicle and this was therefore treated as contamination.

A

Bone preservation: quite good,most of the individual was represented
Sex: female, based on pelvic morphology and skull metrics
Age: 45+ years, based on molar attrition (Brothwell 1981)
Stature: 1.52m ± 0.04 c. 5'0" (Trotter 1970) based on the radii
Pathology: Dental

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

Skeletal

There was slight development of osteophytes on all the major joints of the body. No further comments were possible.

B

Bone preservation: quite good, about half of the skeleton was represente
Sex: probably male, based on pelvic morphology
Age: old adult, based on degenerative disease
Stature: -
Pathology: Skeletal

There was slight development of osteophytes on the sternal ends of the left and right clavicles and on the body and intervertebral facets of one thoracic vertebra.

Unrelated fragments

There were at least three individuals in a mixed box of bones and they are catalogued below

A

Bone preservation: good, only the skull and mandible were represented
Sex: male, based on skull morphology
Age: 45+ years, based on molar attrition (Brothwell 1981)
Stature: -
Pathology: Skeletal

There was slight development of osteophytes on the left and right mandibular condyles. No further comment was possible.

B

Bone preservation: good, only the ribs were represented
Sex: -
Age: about 25 years, based on epiphyseal fusion (Brothwell 1981)

Stature: -
Pathology: -

C
Bone preservation: good,only the skull was represented
Sex: -
Age: ?young adult, based on endocranial sutural fusion
Stature: -
Pathology: -

There was also a tibia and femur which appear to belong together but it was uncertain which (if any) skeleton they belonged to. It was most likely that they belonged to A owing to the degenerative joint disease. They are catalogued below.

Bone preservation: quite good, only a femur and tibia were represented
Sex: ?female, based on long bone metrics
Age: older adult, based on degenerative joint disease
Pathology: Skeletal

There was gross development of osteophytes on the femur head with eburnation, porosity and reduction in size. The medial and lateral distal condyles had gross development of osteophytes, and on the medial surface there was severe eburnation and porosity with an ivory like appearance and shallow grooves produced by bone on bone friction.

The tibia had a small area of periostitic new bone formation on the medial aspect of the top third of the shaft. No further comment was possible.

There was also a sternum and radius with slight development of osteophytes but it was uncertain how these related to the other individuals.

References

Brothwell, D.R. Digging up Bones British Museum (Natural History) Third Edition. 1981.