

V.—REPORT OF THE EXAMINATION AND DESCRIPTION OF HUMAN REMAINS FROM AN ANCIENT BRITISH GRAVE DISCOVERED AT HIGH BUSTON, NORTHUMBERLAND, ON 18TH OCTOBER, 1912.

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[Read on the 30th October, 1912.]

The collection of bones forwarded to me for examination undoubtedly represents the remains of two individuals of different ages, height and muscularity.

I am not prepared to give a definite opinion as to the sex of both: one I am convinced was a male; I am not positive regarding the other; the absence of one sacrum and the broken state of the remaining pelvic bones leaves the question more or less an open one, but judging from the general appearance of the skulls and long bones I should say both were males, one about the early middle period of life, the other somewhat older, but neither exhibiting marked evidence of senility.

So far as they can be reassembled, the bones may, without any difficulty, be separated into distinct pairs. The difference in size

NOTE.—On Saturday, 19th October, 1912, the writer examined a cist uncovered on the previous day at High Buston. It was discovered by workmen engaged in digging a trench to lay water pipes on an arable field, now known as the 'stackyard field,' south of the village street and west of the homestead formerly occupied for some generations by the family of Wilkinson, tenants of the earls and dukes of Northumberland. This field may be identified with (part of) the 'Crofte' shown on the map made in 1616 reproduced in the new *History of Northumberland*, v, 204. The cist which was due east and west lay in the line of the water pipes some fifteen yards from its western hedge and was of the usual type. It was only $7\frac{1}{2}$ inches below the surface. The measurements were as follows: south side, 3 feet 3 inches; north side, 3 feet; west end, 24 inches; east end, 21 inches and depth of interior 22 inches. It was formed in the usual manner by four stone slabs placed on edge with a

and development is very decided, but this disparity is not sufficient to convince me that one was a male and the other a female, (the fact of two interments in the same cist might suggest such being the case). Notwithstanding this I assume (though with a certain amount of hesitancy) that the lighter and smaller bones are those of a younger and less muscular male.

The measurement of the largest femur would give an estimated stature of five feet four inches to five feet six inches.

Among the smaller fragments of bone I found a portion of an ossified thyroid cartilage: this discovery is an excellent means of proving the mature age of its owner, as the stage of ossification presented by this specimen is not reached until a comparatively late period of life, except under circumstances which would be considered abnormal.

It is interesting to note that although the structure of the cartilage of the ribs is almost identical with that of the thyroid, I did not find any evidence of ossified costal cartilages among the many fragments of ribs which I examined.

The following is an inventory (as far as I am able to give one) of the bones received, but owing to the great amount of comminution

stone in the bottom which was very near the rock and covered by a sixth stone broken in two pieces.

The cavity thus formed was found to contain two human skulls and a quantity of human bones. There was also a cup or small urn of the drinking cup type elegantly marked by a sharp pointed instrument. It was unfortunately broken into fragments by the falling in of the covering slab. The dimensions of the urn are: height, $6\frac{1}{4}$ inches; width at mouth, 5 inches, at base, 3 inches. (See illustration, page 49.)

The site commands an uninterrupted view of the sea to the east, and on the south a prospect so extensive that it is said Gateshead Fell may be discovered on a clear day.

So far as is known no prehistoric interment has ever been found in the township of High Buston; although some three fields breadth to the south in a field called Hilly Law in Low Buston there was found in 1815 an urn now in the museum at Alnwick castle figured in the *History of Northumberland*, v, 219.—J. C. HODGSON.

tion it has been impossible to reconstitute satisfactorily more than I have enumerated.

(1) One skull in an excellent state of preservation, complete, except the two zygomatic arches, the malar bone and portion of outer orbital wall on left side, part of the squamous portion of the left temporal bone and most of the teeth in the left upper jaw and left side of lower jaw.

(2) One calvarium, wanting the squamous portion of right temporal bone. A portion of a lower jaw (presumably belonging to it) containing two incisor, one canine, one bicuspid tooth and several loose molar teeth.

(3) Seven cervical vertebrae, more or less complete, nine dorsal vertebrae, more or less complete, eight lumbar vertebrae, more or less complete, and one sacrum. The axis and four cervical vertebrae are exceedingly perfect and very strong, while the massive form of several of the lumbar vertebrae can only be associated with a very well developed muscular male.

(4) Four ossa innominata, very much broken, representing two pelvis; the iliac crests showing strongly marked muscular ridges; the bones were too fragmentary to reconstitute one complete pelvis but the wings of the iliac bones were more characteristic of the male than the female type.

(5) A large quantity of fragments of ribs, with one first rib, thick and strongly developed and possessing a large tubercle. The manubrium and three segments (firmly united) of a sternum.

(6) Three clavicles, one, (a pair) of large size, one single (left) smaller and not so well developed.

(7) Four humeri, more or less perfect, one pair large, strong and possessing well marked muscular ridges, particularly that of the deltoid.

(8) Three ulnae, more or less perfect, two left and one right, with fragments of another.

(9) Three radii, more or less perfect, two right and one left and fragments of another.

(10) Numerous bones belonging to hands and feet, one large and strong os calcis having marked attachment for the tendo achilles.

(11) Three scapulae, fragmentary.

(12) One patella, left.

(13) Four femora, more or less perfect, one being exceedingly well preserved. Two distinct pairs, one much larger and stronger with strongly marked *linea aspera*. Three tibiae, more or less perfect, with fragments of another, one pair much stronger and corresponding to the pair of thigh bones just mentioned. Three fibulae, fragmentary, but representing two right and one left.

In addition there was a great number of fragments, no doubt portions of missing bones, but so much comminuted that it was impossible to reassemble them with any degree of accuracy. Both skulls are of the brachy-cephalic type.

No. 1, the most perfect specimen, has very pronounced supra-ciliary ridges which overhang the fronto-nasal suture, the glabellar furrow being well marked. The forehead is somewhat narrow at its base, presents a considerable obliquity, the highest point of the vertex being immediately in front of the junction of the sagittal and coronal sutures. The fronto-parietal regions are flattened anteriorly, the parietal bones are large and measure five inches from the coronal to the lambdoidal suture, the tuberosities are not well marked, the most prominent area being over the lower and posterior part of the bones. The temporal ridge is somewhat obliterated. The superior portion of the occipital bone rises almost vertically to meet the parietals. The mastoid processes are not very large and not developed downward to any great degree. The nasal bones are strong and very prominent, made more conspicuous by the overhanging supra-ciliary ridges and the prominent anterior process of the superior maxilla. The

lower jaw is strong, well formed and standing evenly on a horizontal plane, the angle is obtuse, the angular measurement being three and three-quarter inches, the condyles are strong, the distance between the centre of the two being four and a half inches, the coronoid processes well developed, the mentum prominent, and the foramen mentale situated immediately below the second bicuspid tooth. All the teeth have erupted but the two middle lower incisors have been shed, the alveolar margins showing absorption and the lateral incisors inclining towards the middle line. The teeth, so many as are present, are sound, but show signs of considerable wear, particularly the molars.

On the middle of the right parietal bone, near the sagittal suture, over an area the size of a five shilling piece, the bone shows marked signs of erosion, and from the smooth condition of its surface and elevation of its edges I would suggest was the result of ante-mortem causes, since the inner table below this part shows no evidence of injury.

The condition of the cranial sutures indicates mature age, they are nearly all obliterated and in the coronal region absorption has advanced to a certain degree, the diploic sinuses being exposed at places, the lower part of the lambdoidal suture is still fairly free.

The measurements, taken as directed by professor Rolleston in Greenwell's *British Barrows*, pp. 560-63, are as follows:—calvarium: extreme length, seven inches; breadth, $5\frac{5}{8}$ inches; height, $5\frac{1}{2}$ inches; minimum frontal width, 4 inches; maximum frontal width, $4\frac{3}{4}$ inches; maximum occipital width, $4\frac{5}{16}$ inches; basi-cranial axis, $4\frac{1}{16}$ inches; circumference, 20 inches

Face: length, naso-alveolar line, $2\frac{5}{8}$ inches; breadth (approximate), 5 inches; basio-alveolar line, $3\frac{1}{2}$ inches; length of nose, $1\frac{1}{8}$ inches; lower jaw, depth at symphysis, $1\frac{1}{4}$ inches; height of orbit, $1\frac{1}{4}$ inches; width of orbit, $1\frac{1}{2}$ inches.

It is interesting to note that this skull bears a very close

IN A CIST AT HIGH BUSTON.

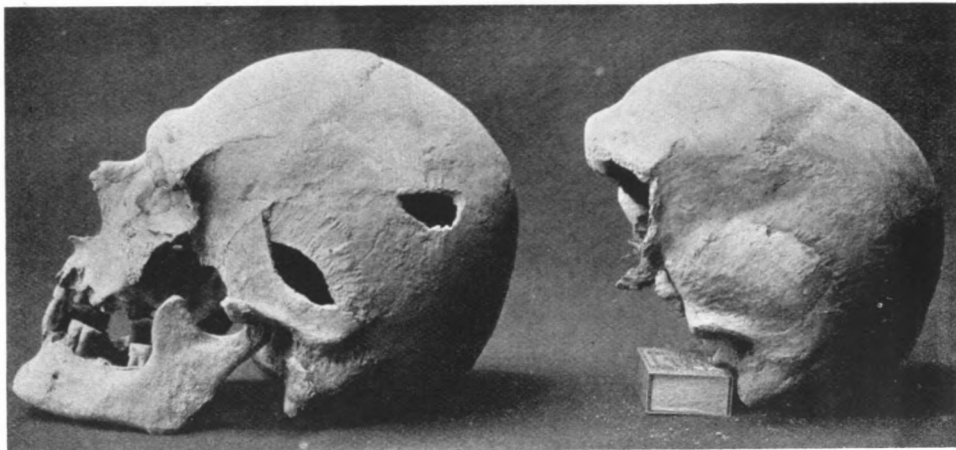
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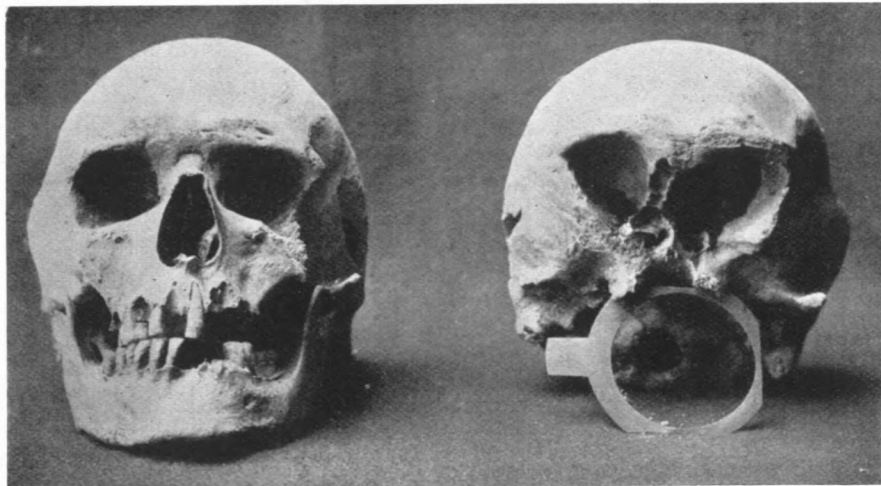
HIGH BUSTON URN.

Height $6\frac{3}{4}$ inches, width at mouth 5 inches, at base 3 inches.

From a photograph by Mr. J. C. Ruddle of Alnwick.



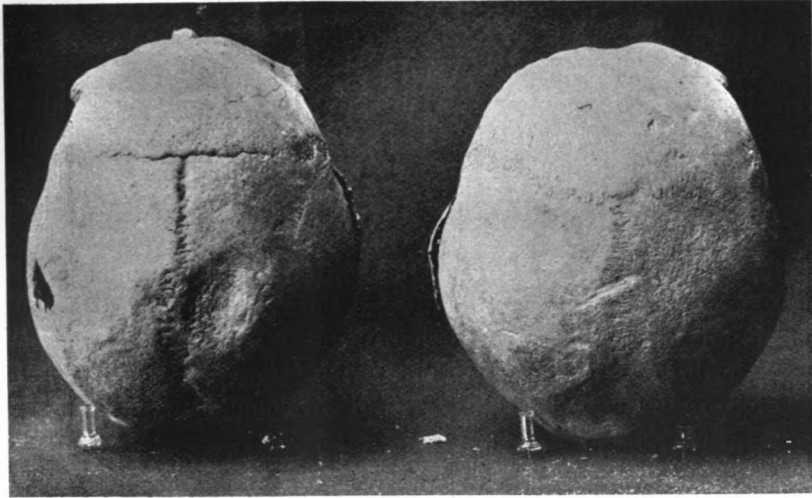
'NORMA LATERALIS.'



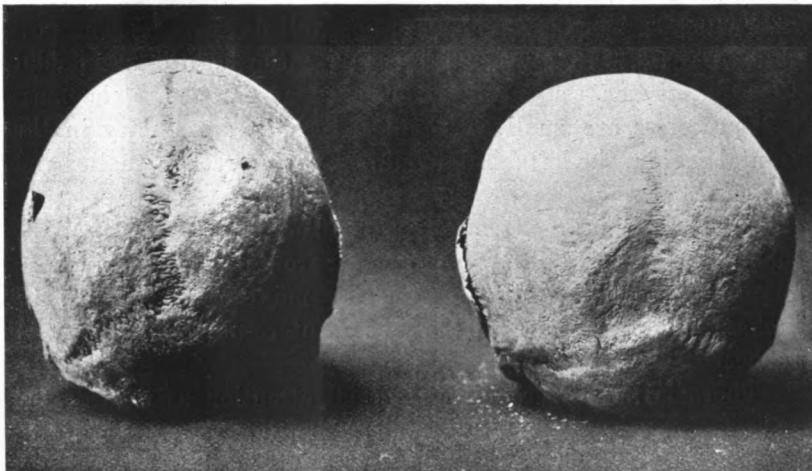
'NORMA FRONTALIS.'

HIGH BUSTON SKULLS.

From photographs by Mr. J. C. Ruddock of Alnwick.



'NORMA VERTICALIS.'



'NORMA OCCIPITALIS.'

HIGH BUSTON SKULLS.

From photographs by Mr. J. C. Ruddock of Alnwick.

resemblance both in appearance and measurements to one found at Ilderton in 1863.*

No. II.—The calvarium (for this is all remaining except a small portion of the lower jaw containing two incisors, one canine and one bicuspid tooth) is an exceedingly fine shaped, 'well filled' specimen of the brachy-cephalic type, the supraciliary ridges are not strongly marked, the forehead is ample, expansive and rises almost vertically, the highest portion of the vertex being situated at the anterior third of the sagittal suture. The parietal regions are markedly prominent and the superior portion of the occipital bone is less vertical than in no. 1.

The breadth of the parietal and the lofty, expanded frontal regions indicate considerable cerebral development with a corresponding high degree of intelligence.

This skull does not exhibit the extreme obliteration of the sutures which is so marked a feature of no. 1, the lambdoidal suture being quite distinct in its whole course. The parietal bones are large, measuring $5\frac{1}{4}$ inches from coronal to lambdoidal suture. The temporal ridges are not well developed. The posterior part of parietal bone, just above the sagitto-lambdoidal junction, presents a decidedly flattened appearance. The mastoid processes are small. There is a slight asymmetry in the frontal region, the left frontal eminence being rather smaller and flattened.

Measurements: extreme length, $6\frac{7}{8}$ inches; breadth, $5\frac{1}{8}$ inches; height, $4\frac{1}{8}$ inches; minimum frontal width, $3\frac{3}{4}$ inches; maximum frontal width, $4\frac{3}{4}$ inches; maximum occipital, $4\frac{3}{4}$ inches; basi-cranial axis, $3\frac{1}{8}$ inches; antero-posterior index, $4\frac{1}{4}$ inches.

There is nothing requiring special attention as regards the

* Described and illustrated by the Rev. W. Greenwell and Dr. Embleton in the *Transactions* of the Natural History Society of Northumberland and Durham, 1, pl. xiii.

other bones except that the large size of some of the lumbar vertebræ, the pair of large femora, the pair of large humeri and the pair of clavicles, all point to the fact that they belong to a male of very marked muscularity, the linea aspera on the femur and the deltoid tubercle, as well as the marked roughening of the large os calcis, all lead to this conclusion; the angle of the femur shows no signs of absorption, indicating that period of mature age characterised by great muscular strength and powerful limbs.

The largest femur measures 18 inches, the largest humerus measures $12\frac{1}{2}$ inches, and the largest tibia measures 14 inches.

I have had the photographs taken to give the four views known to craniographers as the *norma lateralis*, the *norma verticalis*, the *norma frontalis* and the *norma occipitalis*; see pp. 50 and 51.



In addition I have had the long bones and specimens of the vertebrae photographed to show their large size and the marks of strong muscular attachments (see illustration).