

II.

REPORT ON SOME HUMAN CRANIA FOUND IN STONE COFFINS NEAR
THE CAT-STANE, KIRKLISTON. By WM. TURNER, M.B.

In the month of April 1864, I received from Professor Simpson and Mr Hutchison of Carlowrie, portions of four human crania, which had been taken out of stone coffins, situated in a field close to the Cat-Stane, Kirkliston. The crania were, unfortunately, in a very fragile condition. The bones composing them were soft, and their cavities were filled with moist earth, which had washed into and almost filled the coffins. Although great care was taken in removing the earth from each skull, yet as soon as it lost its support, the bones separated into many pieces, some of which were so soft that they crumbled away even when gently handled. It was especially noted that the side of the skull which lay undermost was the softest, and most easily destroyed. With the utmost caution, I have only been able to preserve such fragments as are placed on the table; and of these only one skull gives an outline of both the cranial and facial form.

In the description, the skulls are designated *A*, *B*, *C*, and *D*.

A. Portion of a calvarium; the frontal, greater part of both parietals; and the apex of the occipital bones are present. The frontal, coronal, sagittal, and lambdoidal sutures are all open. The sex is uncertain, perhaps a male. The skull that of an adult, but not aged. In the frontal region there is an almost total absence of a glabella, and of superciliary ridges. There is no great elevation of the forehead; and the vault of the skull, formed by the posterior two-thirds of the frontal bone and the anterior two-thirds of the two parietals, is flattened, so that when looked at from above the vertex seems depressed. The parietal bones in their posterior one-third gradually slope down into the occipital region. The following measurements must be looked upon as approximative:—Greatest frontal breadth, 4·1 inches; extreme length, 7·1 inches; extreme parietal breadth, 5·2 inches; ratio of length to breadth, 100 : 73. The skull is therefore dolicocephalic.

B. Portion of a calvarium, consisting of the frontal and two parietal

bones. The coronal and sagittal sutures are ossified, though their position is marked by denticulations externally. The sex is apparently the male, and the skull is that of one beyond the middle period of life. The glabella and superciliary ridges, though presenting no great projection, are more strongly marked than in *A*. The forehead is also more square and massive, and the flattening of the top of the skull is more decided. The transverse measurements are greater than in *A*. The extreme frontal breadth is 4.6 inches. The extreme parietal breadth is 5.4 inches. The length of the skull-cap in its present imperfect state is 7 inches. If the occipital bone had been present, the length would of course have been greater, though from the downward slope of the posterior parietal region it is not probable that the antero-posterior diameter greatly exceeded this measurement. Calculated, however, at its present length, the ratio of length to breadth is as 100 to 77. The skull is therefore sub-brachycephalic rather than dolicocephalic.

C. Portion of a calvarium, consisting of the left half of the frontal bone, the left parietal and temporal bones, and a small part of the occipital. The sex is possibly that of a male, and the skull is that of one somewhat advanced in years, for the sagittal suture is completely ossified. The transverse measurements of the cranium it is impossible to take; but the extreme length, which is evidently a close approximation to the real length, is only 6.6. Hence this skull is in a marked degree shorter than *A* and *B*, and was most probably either brachy, or sub-brachycephalic.

D. This is the most perfect of all the skulls, for not only are the cranial bones, especially on the right side, in a better state of preservation, but many of the facial bones, including the right half of the lower jaw, are present. The skull is that of an adult, though not aged person. From the smoothness of the superciliary region, and the absence of any strongly-marked muscular ridges, the cranium might be taken for that of a female: the powerful horizontal ramus of the lower jaw, and the deep and projecting symphysis are, however, much more nearly allied to male characters. The sutures are unossified, but the basi-cranial synchondrosis is closed. The forehead is well formed: the tubera both of the frontal and parietal bones very fairly pronounced; the summit of the skull in the parietal region flattened, though the upper part of the

frontal bone does not participate in this flattening as in *B*. From the parietal eminences, the sides of the skull pass almost vertically downwards to the squamous parts of the temporal bones. From the broken condition of the occipital bone, it is difficult to say what its form might have been, though the downward slope of the parietals posteriorly points to a somewhat flattened condition of the occiput. The proportions of the skull may be gathered from the following table of measurements:—

	Inches.
Extreme length (approximative),	6·7
Ectorbital breadth,	3·6
Extreme frontal breadth,	4·0
Extreme parietal breadth,	5·1
Zygomatic breadth (approximative),	4·5

The length is to the breadth as 100 to 76. The cephalic index indicates a sub-brachycephalic type.

The surfaces of the crowns of the teeth in both jaws are ground down and flattened, and the dentine is exposed. The alveolar process of the upper jaw is deep, and the palate is highly arched and narrow.

It is much to be regretted that only four crania, and those unfortunately in a fragmentary state, were recovered from the large number of stone coffins exposed near the Cat-Stane, for a greater number and a more perfect condition might have assisted materially in throwing some light on the cranial characters of the people or peoples formerly occupying that part of the Lothians. This, indeed, was the more to be desired, for historical and archæological evidence alike lead to the conclusion that more than one race was in temporary occupancy of this district of Scotland during the earlier centuries of our era. Though some of the measurements which have been given are only approximations, yet they will, I think, indicate with tolerable precision the relative length and breadth of the crania; and from the description it will have been noted, that whilst one is a fairly marked dolicocephalic skull, the others are inclined to brachycephalism.

The difference between the longitudinal and transverse measurements of the skull marked *A*, and of those marked *B*, *D*, and *C*, might, indeed, weigh so far with some craniologists as to lead them to regard it as having

belonged to a different race—to, in fact, a longer and more oval-headed people. With but a single and very imperfect specimen on which to give an opinion, it may perhaps be more judicious simply to record its characters, without speculating further respecting the race to which it had appertained. The sub-brachycephalic character of the other crania is of considerable interest. Ethnologists have been hitherto in the habit of more especially associating, in this Island at least, short heads with short cists, and of regarding the occupants of the longer cists as a longer-headed race. Yet three of the skulls from the long cists of Kirkliston do not display the usual dolicocephalic characters, but approach much more closely to the brachycephalic form. The facts before us, therefore, so far as they go, point to the existence, in the Lothians, at a later period than that in which the mode of burial in short cists prevailed, of a people whose crania approached much more closely to the brachycephalic type than is exhibited by the men of the present day. With what race, then, are these people to be associated? Not, I think, with the Saxon; for the elongated, more oval form of the cranium *A*, approaches nearer to the Teutonic type than do either *B*, *C*, and *D*. Not to the Scandinavian, for here again the skulls under consideration approach too closely to the brachycephalic form. Much more probable is it, then, that they are the crania of members of that ancient British race—Picts, it may be—which occupied this district of our Island many centuries ago. And in this conclusion I am in general supported by Dr John Thurnam, to whom I sent sketches and measurements of the crania, and whose opinion on any craniological or archæological question bearing on the ancient inhabitants of our Island is worthy of much consideration.