

III.

NOTES ON THE CHARACTERS OF THE CRANIUM FOUND IN A SHORT
CIST NEAR DUNSE, JULY 1863. BY WILLIAM TURNER, M.B.

The fragment of a skull found in the short cist described on page 240, consists of the frontal, two parietals, and right temporal bones, and of the greater part of the occipital bone, three-fourths of the margin of the foramen magnum being preserved. The skull may have been that of a male, of one who had passed the middle period of life, for the sutures are all ossified, though their position is faintly marked externally. Its form may be seen in the annexed wood-cut, engraved from a camera-lucida sketch.

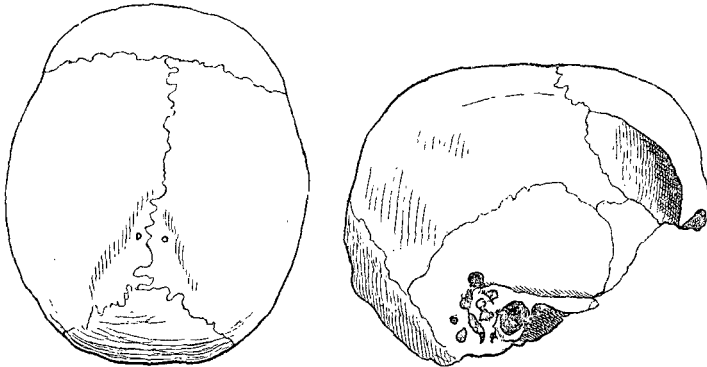
MEASUREMENTS.

	Inches.
Length between glabella and most projecting point of occiput,	6·5
Length between frontal eminences and projecting point of occiput,	6·7
Length of frontal bone,	5·
„ parietal bone,	4·6
„ occipital bone to posterior margin of foramen magnum,	4·2
Longitudinal arc,	13·8
Transverse arc, from right external meatus to vertex, .	6·2

	Inches.
Breadth of frontal bone,	4·3
„ parietal bone,	5·4
„ occipital bone,	4·2
Horizontal circumference,	19·5

The extreme length to the extreme breadth is as 100 to 80. The skull is therefore brachycephalic. The capacity of the cranium in its present state equals 80 cubic inches; in its completed condition it would have been a few inches more. The bones are firm, and only partially deprived of their organic matter, for they adhere but slightly to the moistened tongue.

The different regions of the skull are fairly proportioned to each other. The frontal sinuses have never apparently existed, for the amount of *diplœ* between the two tables of the frontal bone is small, so that the bone is unusually thin in this region. From this circumstance there is no projection at the root of the nose, and the supra-orbital ridges are scarcely marked. The forehead is ample and well developed in the



Skull found in a Cist near Dunse.

region of the frontal eminences, the projection of which appears to be greater from the absence of any well-pronounced supra-orbital ridges below. A little behind the middle of the parietal region, the two parietal

bones slope downwards and backwards, in a very decided manner, to the line of the lambdoidal suture, where a faint posterior bulging indicates the upper margin of the squamous part of the occipital bone. This gives to the posterior part of the skull a somewhat truncated or flattened aspect, and assists materially in imparting the brachycephalic character to it. The mastoid process of the right temporal bone is in a great measure broken away, and the air-cells in its interior are exposed.

The flattened form which many ancient brachycephalic crania exhibit in the parieto-occipital region has of late attracted the attention of some ethnologists. Both Professor Daniel Wilson¹ and Dr J. Barnard Davis² have pointed out the cause which they consider has produced it. They regard it as the result of artificial pressure applied in early infancy, through the back of the head resting on a cradle-board; and in this nursing custom they assimilate the practice of the ancient British mother with that pursued by the women of the North American Indians at the present day. As two of the crania which Dr Wilson adduces in support of his views, viz., the Juniper Green and Lesmurdie skulls, are in the Society's Museum, it may not be uninteresting to compare their parieto-occipital regions with that of the Dunse skull. All three have the same general characters; but in the Dunse specimen, the occipital convexity is somewhat greater, and the symmetry of the two sides is not so much disturbed, for it exhibits no great amount of twisting or bulging of one parietal region over the other, as is the case both in the Juniper Green and Lesmurdie crania. Hence, if the cradle-board theory of the mode of production of this parieto-occipital flattening be accepted, it may be assumed that in this Dunse skull the pressure exerted in infancy had neither been so severe nor so long continued as in the other specimens. Both in length and breadth this Dunse cranium is below the mean, not only of the Scottish, but of the British Brachycephali tabulated by Dr Wilson on page 275 of the first volume of the "Prehistoric Annals of Scotland."

During the past few years a large amount of evidence has been accumulated, which seems to prove, that in the British Islands, and generally

¹ Canadian Journal, vol. ii. p. 406. 1857, and September 1862. Prehistoric Annals of Scotland, vol. i. p. 273.

² Natural History Review. July 1863.

throughout Western Europe, a short-headed race preceded the existing longer and more oval-headed races—a brachycephalic people, allied to the Finns and Laps of Northern Europe, but now quite unrepresented in the west, except perhaps by the Basques and the mountaineers of the Rhetian Alps.¹ In Denmark, France, and Switzerland more especially, numerous crania have been found under conditions indicative of considerable antiquity, which are referred to this short-headed race. Some of these continental brachycephalic skulls exhibit characters allied to those which many of the same form found in Britain exhibit. Some of the crania found under a dolmen at Meudon, in the department of Seine-et-Oise, are small and brachycephalic,² and, from the description and figure given by Dr Barnard Davis,³ a marked amount of parieto-occipital flattening is exhibited by some of the specimens.

In the recently published and copiously illustrated work on “Ancient Swiss Crania,”⁴ by Messrs Rüttimeyer & His, many examples of brachycephalic skulls have been classed together under the common term of the Disentis type; and it is especially laid down by these authors, that this type of a skull, in addition to breadth and shortness, has a flattening

¹ Von Baer, in the Bulletin de la Société d'Anthropologie. 1st December 1859. The brachycephalic character of the Basque crania was first announced by Retzius from the examination of two skulls in his possession. M. Broca has, however, recently contested the accuracy of this statement, and from the examination of sixty crania obtained from a cemetery in the province of Guipuscoa, he concludes that the general form of the Basque cranium is dolicocephalic, the mean cephalic index of his sixty specimens being 77.67. An interesting account of his observations, with the discussion thereon, may be found in the third and fourth volumes of the Bulletin de la Société d'Anthropologie.

The brachycephalic character of the crania of the mountaineers of the Rhetian Alps is well exemplified in two crania from the village of Andeer, at the foot of the Splügen Pass, presented to the Museum of the University of Oxford by Dr Dyce Duckworth. From a note which Professor Rolleston has kindly favoured me with, I am enabled to give the extreme length and breadth of these skulls. In one the extreme length is 7 inches, the breadth 6.2 inches; in the other, the length is 6.6, the breadth 5.8 inches.

² M. Broca. Bulletin de la Société d'Anthropologie. 5th December 1861. Retzius looked upon these Meudon skulls as Basques.

³ Natural History Review, p. 297. July 1862.

⁴ Crania Helvetica. Basel & Genf. 1864.

of the hinder head. From the measurements given of these crania, it would appear that the mean breadth to the mean length is as high as 86·5 to 100, a relation greater than that which is exhibited by the Scottish Brachycephali, as may be seen from the subjoined table, in which I have brought together and calculated the proportions of the most characteristic specimens :—

	Breadth to Length.	
Montrose skull,	85·7	100
Ratho "	88·	"
Juniper Green skull,	82·8	"
Lesmurdie "	85·	"
Newbigging "	80·	"
Tormore (Arran) "	81·	"
Dunse "	80·	"
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	582·5	
Mean,	83·2	100