

**On the various forms of the so-called 'Celtic' cranium / by Professor Rolleston.**

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ON THE VARIOUS FORMS OF THE SO-CALLED "CELTIC"  
CRANIUM. BY PROFESSOR ROLLESTON, M.D. F.R.S. Oxford.

PROFESSOR NILSSON, 18 years ago, declared that he considered nothing more vague and uncertain than the form of the Celtic cranium<sup>1</sup>; and Professor Ecker<sup>2</sup> has expressed himself in much the same language as to the Roman cranium: the latter of these two authors, however, has done much towards removing some of the uncertainty of which he complains. Upon these two points I should wish here to make a few remarks. Under the head of pre-Roman skulls, found in Britain, most writers would be agreed that three distinct types may be classed under the three distinct types of the "River-bed" type of Professor Huxley, of the brachycephalic type of Dr Thurnam, and the dolicho-cephalic "pre-Celtic" type of the same author. I have to say that a dolicho-cephalic cranium, distinct from the dolicho-cephalic Celtic cranium found in the long barrows, exists in addition to these three types, with the latter of which, I believe, it is sometimes confounded. Representatives of this type of crania may be found in a cast in the easily accessible Museum of the London College of Surgeons, and in another cast, made by Dr Thurnam, and now widely circulated, of a cranium procured by me, through the kindness of J. C. Athorpe, Esq., from a barrow near Dinnington, in South Yorkshire; and, finally, in no less than thirty-two crania or calvaria, which the inexhaustible civility of William Aldworth, Esq. has enabled me to procure from an all but equally inexhaustible cemetery on his estate at Frilford. First, of the cast in the College of Surgeons; in the Catalogue of the Osteological Series it may be found described thus at No. 5709: "A plaster cast of the cranium of an ancient aboriginal of Scandinavia regarded as the Celt. The cranium is long in proportion to its breadth, and resembles in size and shape the Gentoo skull, No. 5553. This is the type of a class of skulls, called dolicho-cephalic by the donor, Professor Retzius." Secondly, of the Dinnington cranium, I would remark that Professor Ecker, in *Archiv für Anthropologie*, Bd. i. Hft. 2, p. 283, has remarked of it, that it is exceedingly like the Frankish skulls obtained by him from his grave-row cemeteries. And Dr Barnard Davis, in his *Thesaurus Craniorum*, p. 10, speaks of it as "a very large, even enormous, subscapho-cephalic skull." Of the thirty-two crania obtained by me from Frilford, which from archæological evidence detailed by me in a paper to be published by the Society of Antiquarians have been shown to belong to pre-Saxon times, I may say, firstly, that they resemble very closely the two casts already mentioned; and secondly, that they differ from the dolicho-cephalic crania ordinarily obtained from long barrows, and notably from such crania obtained for me, by the agency of the Rev. David Royce, from a long barrow at Netherswell, near Stow-on-the-Wold, as much as any two sets of dolicho-cephalic crania can differ. Their frontal region though not loftier is yet fuller and wider; and much the same description may apply to every other part of the calvarium, which in no point corresponds to the description given by His and Rutimeyer to their Hohberg type of skull, except that occasionally in male skulls, though by no means always, it has the mesial vertical carina, developed in male specimens (cf. Professor Ecker, *Archiv für Anthropologie*, Bd. i. Hft. 1, p. 84). The skulls

<sup>1</sup> *Crania Britannica*, Letter to Dr Thurnam, p. 17.

<sup>2</sup> *Archiv für Anthropologie*, Bd. ii. Hft. 1. 110.

*solidus  
Ibid. i. 149*



themselves, whether belonging to young or old, present signs of culture in the softness and even rounding of their outlines, to which the retention of verticality by the forehead presents an exception in subordination to the rule or reason of the absence of angles elsewhere; but if the skulls themselves differ their owners seem to me to have differed much more. Of all differences which relate to life there is no one more important than difference as to its duration, and in this the British crania of Frilford differ most essentially and to great advantage from the dolicho-cephalic individuals described by Dr Thurnam, in *Memoirs of Anthropological Society of London*, Vol. I. as found by him in dolicho-taphic barrows. Eleven, or more than half of twenty-one, male crania, obtained by me from Frilford, I have classed as aged; it is needless to say that this very high average of senility is as characteristic of a state of civilization as the surroundings of the tenants of long barrows are of barbarism; secondly, the average height of these individuals was 5 ft. 8.3 in., whereas the average height of the dolicho-cephalic Britons from long barrows is given as 5 ft. 6 in. *ally* Finally, the dolicho-cephalic Celt, whose distinctness I am advocating, survives to the present day, and I am a little doubtful whether as much can be said for his rougher dolicho-cephalic representative. I am aware that there are points of resemblance, as well as points of difference, between these two types; and I am also aware, and indeed would suggest, that the points of difference may be referable to differences of culture. But within the limits of any one species, whether vegetable or animal, brute or human, differences produced by culture seem to me as great as any other. It is in favour, certainly of their kinship, that they appear, both of them together, in the same cemetery, as at Dinnington; whereas neither of them has ever been found by me so interred as to make it seem probable that their owners ever occupied one area simultaneously and in peace with the brachycephalic British Celt. There are several explanations for this fact, if fact it be; I leave them to what the German would call the *Willkühr* of the historian. I will just remark that anthropologists, in whom the tendency I have just mentioned is little less marked, have observed that a certain furrow or *rainure*, which Von Baer has noted in the Aleutians (see *Crania Selecta*, p. 265 (25)), and I have seen in Eskimos, is, according to their *Willkühr*, sometimes characteristic and sometimes not (*Pruner Bey. Bull. Soc. Anth.* Paris, 1863, and M. Bonté, *Bull. Soc. Anth.* Paris, 1864, Vol. v.). *of the* I can only say that it sometimes is and sometimes is not found in these crania, and that its presence or absence seems to me to depend simply upon the necessity which the posterior parts of the parietal bones may or not be under, to accommodate themselves to the requirements of a growing or not growing brain, whilst under no circumstances are their apposed portions, underlaid by the longitudinal sinus, under any obligation so to accommodate themselves. It is, I apprehend, in a somewhat similar way that the presence of a transverse, wide, and shallow furrow, a little way posteriorly to the coronal suture, is to be explained, as it very often is, in well-developed skulls (*Med. Chir. Review*, April, 1863, p. 508). In well-developed human brains the posterior parts of the upper frontal<sup>1</sup> convolutions, as also the lobule of the second ascending parietal convolutions, are largely developed; whilst the first ascending convolution and the fissure of Rolando (Thurnam, *Nat. Hist. Rev.* 1865, p. 267) remain as lines of indifference between them, along which no stimulus is propagated to the outer pericranium, and no absorption of the tabula vitrea inside excited. Both the posterior coronal furrow and the furrow at right angles to it in the posterior portion of the sagittal suture are present, though but faintly indicated, in the Dinnington cast I have spoken of.

<sup>1</sup> See Marshall, *Phil. Trans.* 1863, p. 513.



It is not beside the purpose to add here that Retzius (*Ethnologische Schriften*, p. 108, 1864) distinguished these two varieties of Celtic crania from such other as emphatically as I have striven to do. After describing a long narrow and laterally compressed skull, which he says, is specially found in England and France, and which obviously corresponds to the ordinary Long Barrow or Hohberg Type, he says, "nevertheless this is not the common Celtic form, which is ordinarily somewhat broader and not so compressed, whilst the "Cimbric" Celtic form, which is here and there found in South Sweden, and Denmark, is somewhat broader still. This form is very like the Scandinavian Gothic." Both these forms of crania seem to me to be different from the Roman form of cranium which may be seen figured from Maggiarani in V. Baer's paper on the Rhaetians in the *Bull. Acad. Imp. Sci. St Petersburg*, 1860, p. 58. This form of cranium however I am enabled to say, a specimen from the Towyn y Capel Tumulus, having been presented to the University Museum by the Hon. W. O. Stanley, co-existed with the River Bed Type in this island just as this latter co-existed and apparently peacefully with Retzius' "common Celtic" form in the Frilford cemetery, and with the "Brachycephalic Celtic" form of Dr Thurnam, in a barrow at Crawley. Finally the platycephalic Roman form as figured and described by Maggiarani and Sandifort (*Ecker, Crania Germaniæ*, p. 86) is very precisely and abundantly represented in the series obtained by me from the barrow at Dinnington, where it coexisted with both the longer forms of Celtic crania. Of this barrow, as it is now so frequently referred to, it may be well to put here on record such notes as I have been able to gather from the report of persons present at the removal of the stones of which the barrow was made up, and from personal observations made upon the spot where it had been, after its removal.

Dinnington is a small village about two miles south of Laughton-en-le-Morthen (in the Moorland) in South Yorkshire. A little to the south of Dinnington and on the left hand of the road leading from Dinnington to Anston, and some little way short of the quarries from which the stone for the new Houses of Parliament was taken, there was on the estate of J. C. Athorpe, Esq. a heap of stones about 134 paces in circumference, 42 long, and 35 or a little less in breadth, and 7 or 8 feet in height. The stone was the light porous sandstone common in the neighbourhood; the individual pieces were of nearly equal size throughout; and there was no protecting lean-to nor cist anywhere in the tumulus. Up to the end of 1862 the tumulus was covered with turf, had thorn shrubs growing upon it, and had rabbit burrows in it. In the autumn of 1862 Mr Athorpe began to dig away the turf, and stub up the thorn-bushes, and finally to cart away the stones for wall-building. It was in doing this that the workmen came upon the skeletons, of which there were in all as many as 22, 12 lying in the centre of the cairn, near to each other, but not piled one upon the other, and without any orientations, ornaments, weapons, flints or pottery. Some of the skeletons were at as great a depth as 12 feet, one skeleton however was no deeper than 2½ feet. The workmen said, "the skulls lay between the legs;" "the thigh-bones were at the back of the neck;" and I suppose consequently that the bodies had been buried in a sitting posture. Only one skeleton was extended, and its head lay at the north-west. The barrow itself had its long diameter, which however was only the longer by a very few yards, and may have become so by virtue of the paring to which it may have been subject in agricultural processes, lying east and west. At its east end a skeleton was placed far apart from the rest, a point of importance to be noted, as Sir R. C. Hoare (cit. *Crania Britannica*, i. p. 230) has put on record that the deposit in the long barrows he excavated was usually at the east, which was also the broader end. A considerable proportion of these skeletons had belonged to aged individuals, and from

he has invariably found the sepulchral deposit placed under the East end of the tumulus and the contents to consist of skeletons buried in an upright position, and unaccompanied by those fine urns

of C. 1. 66

\*  
Anthon  
ix. 43



this as from other circumstances detailed above, the hypothesis of a battle will not account for the facts of these burials. Many of the skulls possess the subquadrate general outline combined with smoothly swelling and elegantly rounded individual contours which are described as characteristic of the Roman cranium; and the locality renders the admixture of Roman soldiers by no means an impossible supposition. I am not acquainted, though professed archaeologists may be, with any account of a cemetery exactly resembling this in Great Britain; but the following account which Wenholt gives (*Sitzungsberichte Kaiser. Akad. Wien. Phil. Hist. Class.* 1858, Bd. 29, Hft. 1, p. 166) of a variety of grave mounds found in Germany and containing unburnt bodies may be compared advantageously with the imperfect account I have given above of the Dinnington Tumulus. His words are, "Manchmal vermisst man an den aufgedeckten Gerippen die gewöhnliche sorgfältige Behandlung der Todten; sie scheinen nur nachlässig hingelegt oder hingeworfen. (Keller, *Grabhugel in Burghölzli bei Zürich*; *ebd. Helvet. Heidengräber und Todten hügel.* p. 16). Wenn die Gebeine völlig über einem Haufen liegen, wie in einem Tumulus bei Biewer in Luxembourg und einem Heidenbuck bei Ossingen in Thurgau wird man annehmen müssen dass der Todte sitzend bestattet wurde; in beiden Fällen zeigt das Grab nicht die mindeste Spur einer späteren Störung. (*Publicat. Soc. Hist. Luxembourg*, VII. 106. Keller, *Helvet. Heidengräber.* 18).

The skeletons after the removal of the stones which had covered them were reinterred in the earth, and it was only after the second disinterment that, through the kindness of the owner of the soil, they came into my hands.

suppl. *Ann. Soc. Antiq. Scot.* VII. 2. (1870) p. 481. The external character of the long (horns) crania are their great length in proportion to the body of the cranium, their lying more or less nearly east & west, and their being much higher at one end than the other. The higher end is always placed towards the east, and notwithstanding the immense length of the crania there is in 3 out of the 4 instances only one interior chamber situated in the higher or east end. From this chamber the passage opens exteriorly midway between the two horns in front of the high end of the cranium. But in one of the crania described and figured there were two chambers opening from the S<sup>th</sup> side not far from the end.