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Report on the Hythe Crania

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Source: *The Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 38 (Jul. - Dec., 1908), pp. 419-450

Published by: [Royal Anthropological Institute of Great Britain and Ireland](#)

Stable URL: <http://www.jstor.org/stable/2843308>

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REPORT ON THE HYTHE CRANIA.

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Medicine for Women.

[WITH PLATE XXXV.]

THE large collection of bones beneath the church of St. Leonard at Hythe has given rise to a great deal of speculation and assertion as to its origin, but, with the exception of 100 measurements made by Dr. Randall Davis in 1899, no systematic series of measurements has ever been taken.

The present contribution is a series of measurements of 590 crania from Hythe, and, incidentally, of skulls measured by the author at Dover and Upchurch in Kent, for comparison. It is hoped that, at a later date, the results of the detailed examination of the face as well as of the rest of the skeleton may be submitted to this Institute.

History of the Bones.

It is quite certain that the bones have been in their present position for over two hundred years, because the Vicar of Cheriton, near Hythe (1679 to 1719), writing in 1700, says that all records of their origin had then been lost, and the townsmen could not account for them in any way. It will be an extremely moderate computation to allow 79 years before 1679, when this vicar must have known of their existence, for all local tradition to have died out, so that we may safely say that the bones must have been under the church in 1600 and were probably placed there earlier.

In 1545 Leland visited Hythe and described the church somewhat inaccurately. He says that beneath it there is a "faire vault," but makes no mention of the bones.

This I think is all the real historical evidence available at present. Many battle theories have been advanced by Hasted and others to account for this, as they are so often advanced to account for other large collections of bones, but they have all been made comparatively recently, and have not stood the test of historical research.

Some medical observers have substantiated the battle theory by saying that the collection contains practically nothing but male bones which bear numerous marks of spear and battle axe wounds, and that, in addition, two perfectly distinct races are to be made out. How little this agrees with my own observation will be seen later on. I do not think it fair to take these gentlemen's opinions too seriously. Most of them are dead now, and any conclusions they formed were

apparently the outcome of one or two flying visits of inspection, and were never intended as authoritative pronouncements.¹

The opinion of Barnard Davis, however, is on quite a different footing. He, apparently, never saw the Hythe series, but obtained six of the skulls for his own collection which is now in the Museum of the Royal College of Surgeons.² These, he said, by their shortness reminded him of the skulls of modern Germans, though he doubted whether they were other than those of Kentish people, whose only great battle had been that with death.

There seems every reasonable probability that these bones have been dug up from the churchyard and stacked under the church in the way which was quite usual in pre-Reformation days. It was then quite common, especially in towns, to have an ossuary beneath a church or a charnel house in close relation to it. There is said to be a large collection of bones walled up in the neighbouring church at Folkestone, while at Dover I had the opportunity in 1905 of inspecting and measuring some of a large series beneath the site of the vanished church of St. Peter, and these had been absolutely walled in and buried since the sixteenth century. At Upchurch, too, in the north of Kent, there is a small collection in a true crypt, and here also there is a battle tradition, though without any historic value.

The fact that Leland makes no mention of the bones does not, to my mind, prove that they were not there in 1545, because, given a crypt, its proper furniture in those days would have been bones, and their presence need not have called for special comment.³

One point which is noticeable about the Hythe bones is the way they are, and apparently always have been, stacked in a long pile allowing a free passage way beside them. It is only lately that it has been appreciated that what is called the crypt in this church is really a processional way provided when the new choir was built in the reign of King John. Since the time of the Reformation it has not been used for this purpose, and its north door has not only been closed but, until quite recently, has been earthed up on the outside by the gradual accumulation of soil.

It seems to me, and in this I have the full concurrence of the vicar, that the careful stacking of the bones along one side only of the processional way, and that the west side, and the free passage left close to the easternmost wall of the church, points to the bones having been placed where they are now while the processional was still used for the annual procession round the church, that is to say, in pre-Reformation days, though how much earlier we cannot tell.

The date of the stacking of these bones is of some little importance. Both Dr. Knox and Mr. Frank Buckland state on hearsay evidence that the bones were

¹ Lest I should seem to wish to suppress evidence pointing to a conclusion at variance with my own, I would strongly advise anyone interested in these bones to read the two papers of Dr. Robert Knox, *Proc. Ethnological Society*, 1861 and 1863, as well as that of Frank Buckland in *Curiosities of Natural History*, 4th Series, p. 181.

² In this series is, I believe, the very large skull described by G. Borrow in his novel *Lavengro* in 1851. He saw it in his boyhood, in the early years of the nineteenth century. By the courtesy of the Council a cast of this skull has been presented to the Hythe Collection.

³ See also footnote on p. 422.

stacked about the middle of the last century, and that before that time they were lying scattered about the floor. Against this is the evidence of the late Reverend James Browne, vicar of Cheriton and chaplain of the Cinque Ports, who mentions the pile of bones in 1700. In addition to this there is at present in the church at Hythe an old steel engraving dated 1783 and showing the stack as it is now. It is very probable that, at the time the skulls were placed upon the shelves in 1851, a few scattered bones which were on the floor, and possibly were recent additions, were cleared up and the stack made more complete. There is, however, no reason to believe that the main pile of bones differs in its position to-day from that it held when it was first erected.

Assuming, however, that the bones came into their present position somewhere about 1550, and it is extremely unlikely that they were much later, what reason have we for believing that they came from the adjoining churchyard?

In the first place I should point to the extreme probability of such a thing in the absence of any definite evidence to the contrary. That a large number of these bones have been buried is indicated by the presence of earth in the interior of the skull as well as in the orbits and auditory passages, while on some of them particles of woody fibre remain mixed with a few hairs adhering to the occipital region, pointing to the probability of their having been buried in coffins. Moreover, I have very little doubt that the so-called spear and battle axe wounds are really the work of spades and pickaxes, and were certainly inflicted when the skulls had become friable many years after death.

I have demonstrated the great difference produced by blows of the same force and with the same weapon on skulls of people recently dead and on those which had been buried many years and, from the experience thus gained, I feel sure that the injuries found in the majority of these skulls were not the injuries from which their owners died.

Then this great pile of bones represents the remains of at least 4,000 people, men, women and children. This is no mere rough estimate, but the result of counting all the heads of thighbones seen in restacking the whole pile which the vicar has lately had done. It is absurd to think that this number of people died at any one time in Hythe. The total population is at present little more than 5,000, and although in the time of its greatest prosperity, which was in the reign of King John, the number of townspeople may have exceeded 4,000, there were at least four churchyards in which they could be buried. After this, until the time of Elizabeth, the town gradually declined.

Since the time of Elizabeth the entries of burials are available and, judging from these, it is evident that an allowance of forty burials a year for the preceding two or three centuries would be extremely liberal.

No doubt plague accounted for the death of some of these people, though certainly they did not all succumb in one visitation. We can study the effects of plague in the church records, and although the deaths are greatly increased in the particular plague years, they are correspondingly diminished for the succeeding three or four,

so that the average of five or six years, including a plague year, does not appreciably differ from that of five or six in which no plague occurred.

One more point of historical interest must be mentioned and that is that the grave-yard formerly did not exceed about two-thirds of an acre, though in more modern times it has been twice enlarged. This possibly furnishes a clue to the presence of ossuaries beneath churches in pre-Reformation times, since the habit then seems to have been to use a small churchyard over and over again while in more modern times, as soon as one plot of land is filled, more is consecrated.

Taking all the above points into consideration it seems extremely probable in the absence of any reliable evidence to the contrary that this stack of bones was finished during the sixteenth century, and that the bones composing it were gradually dug up from this or some of the neighbouring Hythe churchyards during the sixteenth, fifteenth and possibly fourteenth centuries. That, as the people whose bones these were must have died at least fifty years before they were dug up, and would represent the total burials of more than a century, it is probable that we are dealing with the remains of Kentish people most of whom lived in the fourteenth and fifteenth centuries.

General Examination of the Bones.

Although it is my hope to furnish detailed results of the examination of series of different parts of the skeleton later on, it may not be out of place to say here that the 590 skulls which have been measured consist of those which were picked out of the stack in 1851 and placed upon shelves, where they are now shown.

In restacking the main pile of bones during the last few weeks, nearly as many measurable skulls again have been found and put aside, but there is no reason to think that those measured are not quite representative. It was evident from the débris that women's and children's skulls had, owing to their more fragile nature, suffered more seriously than those of men, and this fact, no doubt, accounts largely for the excess of male over female skulls on the shelves, which I have measured. Indeed, in most recorded collections of skulls the males exceed the females.

Three additional skulls were dug up a few years ago on the site of the church of St. Nicholas. This was one of the three, or perhaps four, small churches which were in Hythe during the thirteenth and part of the fourteenth centuries, but fell into decay with the decline of the town, and were no longer used in the fifteenth century. Leland in 1545 saw¹ the ruins of these churches. These three skulls are therefore interesting for comparison, since they cannot have been buried later than 1365, as there is good evidence that after this Hythe had only one church, that of St. Leonard, left.

Of the stature and physique of the mediæval Hythe people I hope to be able to speak with more detailed knowledge later, but a preliminary measurement of 155 femurs points to the men having averaged about 5 feet 5½ inches, while the

¹ Or says that he saw them. Leland's account of Hythe and the adjacent church of Lympne makes me suspicious that he got his information from some neighbouring ecclesiastical centre, such as Canterbury or Saltwood, and never really visited the place.

women were about 5 feet 1 inch. (The average length of 76 ♂ femurs was 45.1 cm. and of 79 ♀ femurs 41.8 cm.)

There is no doubt that these people lived on coarse, rough food, since their teeth are in almost every case worn, often quite flat, and this applies to young people as well as old. At the same time caries is not nearly so common as it is in modern English people.

I regard this condition of the teeth as an indication that these people lived before bread was an ordinary article of diet, and when cakes of roughly ground meal were the ordinary fare. At any rate, the state of these teeth was identical with that of those found under St. Peter's at Dover, which almost certainly came from people who lived in the thirteenth and fourteenth centuries. They also form a contrast with the skulls I have examined from a disused churchyard under the site of the Bluecoat School near Newgate, most of which were from seventeenth century Londoners, and in which, while the wearing down was much less marked, caries was more common. In the recent restacking of the pile, several masses of hair were found, in which shades of red predominate. It is, I believe, a recognized fact that black and brown hair turns red by keeping, but in addition there is a good deal of flaxen hair, some of which, evidently from children, is done up in plaits. I fear, however, that the amount is quite insufficient to give us any good idea of the predominant hair tints of these people.

Besides the hair, a quantity of coarse earthenware pottery and wooden platters was found in the pile, as well as the upper part of an old shoe or boot of a very different cut from the present. All these things will be submitted to experts and reports furnished in due course.¹

It should perhaps be mentioned besides that in the vault are some thirteenth and fourteenth century stone crosses, formerly gravestones, as well as part of the lid of a fourteenth century stone coffin. These, of course, need not necessarily have been connected with the bones, though they give some indirect evidence that burials of those times were later on disturbed.

Pathological Observations.

A large number of pathological specimens have come to light, many of which I have submitted to Mr. S. G. Shattock, who has been kind enough to advise me upon them. The commonest trouble undoubtedly is osteo-arthritis, from which a great many of these people must have suffered terribly.

Ten or twelve examples of syphilitic lesions were found in the form of ulcerations, necroses, gummata and periostitis. One skull with a large gummatous heaping up of bone has been shown to countless visitors in the past as an instance of a healing wound. If the modern theory that syphilis was brought from America by Columbus be true, these specimens were probably some of the later additions to the pile.

¹ Since the above was written the pottery has been taken to the Medieval Department of British Museum, and there pronounced to be characteristic of the fourteenth and fifteenth centuries. The wooden platters closely resemble those preserved in the old Leper's Hospital at Harbledown near Canterbury.

Evidences of ante-mortem injury are numerous, several fractured tibiæ and one or two fractured femora were found, and it is wonderful what good, straight unions were made. There are also several instances of healing wounds of the skull quite distinct from the much more numerous spade and pick-axe injuries already discussed.

The frequency of injuries quite bears out the reputation for turbulence which the Cinque Ports enjoyed during the middle ages.

I have seen the rickety tibia noticed by Dr. Knox, but apart from that have come across no evidence of the disease which I could recognize.

Measurements of the Crania.

I have divided the 590 skulls into 326 males over 20, 230 females over 20, and 34 children of both sexes up to 20; that is to say, until the suture between the basi-occipital and basisphenoid bones closes.

The division into males and females is, of course, only done to the best of my ability, and is liable to revision. Still, I have given great care to this point, and have placed a mark of interrogation against those skulls in the list which have given me most trouble in determining the sex.

I do not feel justified in giving an approximate age to the possessors of the skulls until I have the skull cap removed and cleaned, since my experience teaches me that the most reliable evidence is the amount of internal closure of the sutures. (See "Relation of the Cranial Sutures to Age," by F. G. Parsons and C. R. Box, *Journ. Anthropol. Inst.*, vol. xxxv, 1905, p. 30.) From what I can see, however, I should say that 242 are from people over 40, and 275 between 20 and 40 years.

This I should think a probably fair estimate when one remembers the numerous visitations of plague in the fourteenth and fifteenth centuries, and the notorious turbulence of the Cinque Port inhabitants.

Apart from the personal element which must always be discounted, I did not expect to find the female and children's skulls in anything like their due proportion on these shelves. It must be remembered that these bones have probably gone through the sorting processes of (1) decay in the damp ground; (2) exhumation; (3) stacking and its pressure effects; (4) modern handling. There are enormous numbers of fragmentary skulls in the great pile, and in these the women and children doubtless are in excess of the men. The inclusion of a certain number of female skulls among the males is probably counter-balanced to a certain extent by the reverse process, though in my case I do not think to the same amount. In any case, as long as the sexing of skulls remains a question of individual judgment, nothing approaching mathematical accuracy can be expected from the results of measurements, though I find that by shifting a block of 100 more or less doubtful skulls from one sex to the other, I have only succeeded in altering the average length index by .1 per cent.

The measurements I have taken are:—

1. The ophryo-maximal length.
2. The glabello-maximal length.

3. The greatest parietal breadth.
4. The least frontal breadth taken where the temporal ridges come closest together.
5. The basi-bregmatic height.
6. The auricular height.

Personally, I prefer to work with the ophryo-maximal length rather than with the glabello-maximal, because it is uninfluenced by the size of the frontal sinuses, and also because it is more often available. Still, I think the two measurements should always be taken; partly for comparison with Continental measurements, and also because the contrast between the two lengths gives a clue to the development of the frontal sinuses, on the one hand, or the bulging forward of the forehead as it ascends, on the other.

I have also included the usual breadth and height indices, calculated by using the ophryo-maximal length as a standard in each case.

I confess that these indices mean little to me. If I am given the length, breadth, and height of a skull, I can roughly picture it and compare it with the average measurements of known series, but a skull with a high breadth index may be one of normal length and great breadth, or of normal breadth and little length.

TABLE I.—LENGTH.

—	Males.				Females.			
	Ophryo-maximal.		Glabello-maximal.		Ophryo-maximal.		Glabello-maximal.	
	No.	Length.	No.	Length.	No.	Length.	No.	Length.
		cm.		cm.		cm.		cm.
Hythe ...	324	17·7	319	17·9	230	17·1	227	17·1
Whitechapel ...	138	18·7	137	18·9	143	18·0	140	18·0
Moorfields ...	45	18·7	44	18·9	65	18·2	63	18·3
Christ's Hospital ...	61	18·3	—	—	—	—	—	—
Cambridge Under-graduates ...	—	—	1,000	18·2	—	—	—	—
St. Thomas's Hospital Students	97	18·1	—	—	—	—	—	—
Women's Medical School Students...	—	—	—	—	50	17·5	—	—
Bedford College Students...	—	—	—	—	—	—	small series	17·9
British Association	—	—	?	18·7	—	—	?	17·5
English criminals ...	—	—	3,000	18·1	—	—	—	—
Upchurch ...	16	18·2	—	—	5	17·8	—	—
Dover ...	12	18·3	—	—	—	—	—	—
Bavarian ...	—	—	100	18·1	—	—	100	17·3
Württemberg ...	—	—	97	17·9	—	—	19	17·3
French soldiers ...	—	—	56	18·0	—	—	—	—
Long Barrow ...	17	18·7	16	19·1	12	1·84	13	18·3

On looking at the above table the shortness of the Hythe skulls is very striking; they are shorter than anything else in the table except the glabello-maximal length of the Würtemberg males, while the female length of 17·1 is less even than that of the German female skulls.

Judging from the Hythe, Whitechapel and Moorfield series, which, taken together, include 507 male and 438 female skulls, it seems that the male English skull averages about two mm. more in the glabello-maximal than it does in the ophryo-maximal length, while in the female skulls the two lengths are practically the same.

In this and the following tables the Whitechapel and Moorfields skulls are those published by Dr. Macdonell in *Biometrika*, vol. iii, 1904, and vol. v, 1906.

The Christ's Hospital series was one I measured myself, and was dug up close to the site of the old Blue Coat School. It was in a disused grave-yard, and, among other remains, contained those of many prisoners who died in Newgate. From the way the bodies were buried I have little doubt that part at least of it had been used as a plague pit during the great plague.

The St. Thomas's Hospital and Women's School measurements were made by me in 1907-08 on my own students in these medical schools, and the figures were gained by subtracting 11 mm. from the living measurements.

The Dover skulls were part of a large collection removed from the site of St. Peter's Church in Dover during some recent excavations. For the chance of seeing these I am indebted to the kindness of Canon Bartram. They are probably

about the same date as the Hythe skulls, but, owing to the crypt having been filled in with moist earth, very few were available for measurement.

The Upchurch skulls are in the crypt of the church there, not far from Rochester, and here again I am indebted to the kindness of the vicar. Indeed I should like to take this opportunity of acknowledging the unfailing kindness and help I have received from the many clergymen I have come across in the course of my various investigations. To the Reverend H. Dale of Hythe and the vicars of Christ Church and St. Sepulchre's in the City, I am especially indebted. I have been surprised and delighted at the extent of these gentlemen's knowledge of the unwritten history of their parishes, and only regret that space does not allow me to set down all I have learnt from them.

CURVE No. 2.

The other series of skulls in the tables are taken from Dr. Macdonell's great works on the Whitechapel and Moorfields skulls already quoted. I have, however, taken the liberty of reducing the measurements to the nearest millimetre, since I feel that, so long as the determination of sex remains so uncertain, little is gained by working them out to several places of decimals. Indeed my absence of mathematical training would have made this very laborious in my own series.

The accompanying curves (1 and 2), contrasting the grouping of these skull lengths in the Hythe and Whitechapel series show that the Hythe skulls are in every

way as homogeneous a series as are those from Whitechapel, and that in neither group is there any appreciable mixture of types. The contrast between these two groups is worth making because, as far as we know, they represent the extremes of English skull lengths as demonstrated by large and homogeneous collections. It seems to me possible that Dr. Macdonell tends to err on the side of making too many doubtful skulls female, while my own tendency to error is in the opposite direction, but it is extremely unlikely that, if each of us determined the sexes of the other's collection, independently and anew, the means would approach one another by more than 1 mm.

TABLE 2.—BREADTH.

—	Males.				Females.			
	Greatest parietal.		Least frontal.		Greatest parietal.		Least frontal.	
	No.	Breadth.	No.	Breadth.	No.	Breadth.	No.	Breadth.
		cm.		cm.		cm.		cm.
Hythe ...	324	14·3	318	9·9	230	14·0	228	9·6
Whitechapel ...	135	14·1	132	9·8	140	13·5	147	9·3
Moorfields ...	46	14·3	47	9·85	62	13·8	64	9·5
Christ's Hospital ...	61	13·9	—	—	23	13·4	—	—
Cambridge Under-graduates ...	1,000	14·3	—	—	—	—	—	—
¹ St. Thomas's Hospital Students ...	97	14·1	92	9·8	—	—	—	—
¹ Women's Medical School Students	—	—	—	—	50	13·7	50	9·7
Bedford College Students...	—	—	—	—	small series ?	13·6	—	—
British Association	?	14·4	—	—		13·7	—	—
English criminals ...	3,000	13·9	—	—	—	—	—	—
Upchurch ...	16	14·4	—	—	5	13·5	—	—
Dover ...	12	14·3	—	—	—	—	—	—
Bavarian ...	100	15·0	72	10·4	100	14·4	83	9·6
Württemberg ...	96	14·8	98	9·7	19	14·3	19	9·4
French soldiers ...	56	14·3	56	9·6	—	—	—	—
Long Barrow ...	18	14·2	16	9·9	12	13·9	11	9·4

It will be seen from this table that the parietal and frontal breadths of the Hythe skulls are well developed, but not exceptionally so, while the accompanying curve shows the homogeneous nature of the group and the range of variation. (Curve 3.)

Table 3 shows that the Hythe skulls are of considerable height, indeed, their basibregmatic height is only surpassed by the Bavarian and Long Barrow skulls. This applies both to the male and females. Their homogeneity and range of variation is shown in the accompanying curve. (Curve 4.)

The relation between the auricular and basibregmatic heights may, I think, prove a point of considerable classificatory importance as our supply of material increases. In the male Hythe skulls the auricular height averages 13 mm. less than the basibregmatic, while in the females it is only 12 mm. less.

¹ In arriving at these measurements I deducted 11 mm. in the parietal breadth, but experience in the Dissecting Room showed me that 6 mm. was ample to deduct from the living frontal breadth.

CURVE No. 3.

CURVE No. 4.

TABLE 3.—HEIGHT.

	Males.				Females.			
	Basi-bregmatic.		Auricular.		Basi-bregmatic.		Auricular.	
	No.	Height.	No.	Height.	No.	Height.	No.	Height.
		cm.		cm.		cm.		cm.
Hythe	307	13·3	294	12·0	222	12·8	215	11·6
Whitechapel	122	13·2	135	11·5	124	12·5	143	10·9
Moorfields	34	13·0	46	11·4	47	12·4	59	10·9
St. Thomas's Hos- pital Students ...	—	—	53	12·1	—	—	—	—
Women's Medical School Students...	—	—	—	—	—	—	25	11·7
Upchurch	13	13·2	—	—	Very few skulls available		—	—
Dover	12	13·0	—	—			—	—
Bavarian	99	13·4	100	12·1			100	11·4
Württemberg	93	13·1	94	11·5	19	12·6	19	11·2
French soldiers ...	56	13·1	56	11·3	—	—	—	—
Long Barrow	12	13·8	9	12·1	9	13·5	3	11·8

This, it will be noticed, is the same amount as is present in the male Bavarian skulls, but is lower than that of every other series put in the tables for comparison.

The accompanying curve shows the auricular and basi-bregmatic heights of fifty skulls taken at random from the male series, and indicates how very wide the range of variation is from the mean 13 mm. (Curve 5.)

CURVE NO. 5.

Sometimes there is only 4 mm. difference between the two heights; at others as much as 21 mm. Indeed, among the female skulls in the collection there are three in which the basi-bregmatic height is only 1 mm. more than the auricular.

This variability would make the auricular height a most uncertain factor in estimating the actual height of skulls when a very small series is being dealt with, but when consecutive series of ten skulls are taken, the liability of variation is reduced to about 1 mm. each way, while if series of twenty are dealt with, it for all practical purposes disappears.

Indices.

The breadth and height indices vary of course with the particular length which is chosen for comparison. It does not make very much difference whether the ophryo-maximal or glabello-maximal is used, but it may, and in the case of the male Hythe skulls does, make all the difference as to whether they fall into the brachycephalic or mesaticephalic classes. I have, therefore, in the following tables placed both calculations side by side wherever both lengths are available, since I do not know whether there is any authoritative decision as to which should be used in classifying skulls according to their indices.

TABLE 4.—INDICES.

	Males.					Females.				
	Breadth.			Height.		Breadth.			Height.	
	O.M.L.	G.M.L.	F.P.	O.M.L.	G.M.L.	O.M.L.	G.M.L.	F.P.	O.M.L.	G.M.L.
Hythe... ..	808	799	692	751	743	819	819	686	749	749
Whitechapel	754	743	695	706	698	750	750	689	694	694
Moorfields	765	756	688	695	688	758	754	688	681	678
Christ's Hospital	760	—	—	—	—	—	—	—	—	—
St. Thomas' Hospital Students	779	—	695	—	—	—	—	—	—	—
Women's Medical School Students	—	—	—	—	—	783	—	708	—	—
Bedford College Students	—	—	—	—	—	—	760	—	—	—
Cambridge Undergraduates	—	783	—	—	—	—	—	—	—	—
British Association	—	770	—	—	—	—	783	—	—	—
English criminals	—	772	—	—	—	—	—	—	—	—
Upchurch	791	—	—	725	—	758	—	—	—	—
Dover	781	—	—	710	—	—	—	—	—	—
Bavarian	—	832	693	—	740	—	832	666	—	740
Württemberg	—	824	655	—	732	—	827	657	—	728
French soldiers	—	798	671	—	728	—	—	—	—	—
Long Barrow... ..	759	743	697	738	723	755	760	676	734	738

Of the letters which head the columns, O.M.L. signifies an index taken with the ophryo-maximal length, G.M.L. one with the glabello-maximal, while F.P. is the fronto-parietal breadth index. The higher this index is the greater is the forehead breadth in comparison with that of the parietal region. In both the Hythe and Whitechapel series this index is six lower in the females than in the males, while in the Bavarian it is as much as twenty-seven lower. In the Women

Medical Students it is very high, which is worth noting when it is remembered that these are women of more than average intellect and mental training.

Capacity.

I have only at present taken the capacity of eight skulls, four male and four female, for the purpose of testing the various methods of estimating the capacity from the measurements.¹ I find that Pearson and Lee's formula,

G.M. length $\times$ breadth $\times$ auricular height $\times$.000337 + 406

for male skulls, and

G.M. length $\times$ breadth $\times$ auricular height $\times$.000400 + 206

for females, gives the best results except in one particular skull which was scaphocephalic. The results were much closer to the actual capacity, taken by shot, in the males than in the females.

Using Pearson and Lee's method on the average measurements of all the Hythe skulls already recorded, it would give the male skulls an average capacity of 1,441 c.c. and the females of 1,206 c.c. I fancy this is rather too low an estimate for the females, but in any case it is certain that these skulls are rather below the average of those of modern English people, just as the stature of their possessors was below that of modern middle-class Englishmen. I quite admit that more extended series of actual measurements of capacity are needed, but as things are it is very difficult to make them.

Skull Shape.

Every variety of skull shape may be found in the collection, but the most striking character is the number of skulls which have a steep, almost vertical, hinder end. The transition from the upper to the posterior surfaces is, therefore, comparatively sudden. The female skull (Plate XXXV, Figs. 1-3) gives a fair though not marked example of this. Bulging of the occipital bone is often coincident with this. The flattening of the posterior aspect, when it is very marked, gives the upper surface of the skull a sphenoid appearance, *i.e.*, a quadrilateral with a narrow surface anteriorly and a broad one posteriorly.

Comparison with St. Nicholas Skulls.

Having considered the different measurements of the skulls found in the vault of St. Leonard's church, it will be possible to compare them with those of the skulls dug up a few years ago in making a new revolver range at the School of Musketry and on the site of the old church of St. Nicholas. There is really very little doubt that these skulls were buried during the first half of the fourteenth century or earlier, since after 1365 the church was no longer used.

Two of these skulls are female and one male; they are considerably more decayed than the others, but this is easily explained by their having been in the ground during the three and a half centuries in which the St. Leonard's bones have probably been in the vault.

¹ The methods tried were those mentioned by Dr. Beddoe in his paper published in *Journ. Anthropol. Inst.*, vol. xxxiv, p. 266.

TABLE 5.

	Ophryo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basi-bregmatic height.	Auricular height.
MALES.						
Average measurements of						
St. Leonard's series ...	177	179	143	99	133	120
St. Nicholas' ♂ skull ...	172	175	151 ?	106	143	127
FEMALES.						
Average measurements of						
St. Leonard's series ...	171	171	140	96	128	116
St. Nicholas ♀ skull, <i>α</i> ...	167	166	146	97	128	119
" " <i>β</i> ...	167 ?	167 ?	147	89	120 ?	116

From the above it will be evident that the chief characteristic of the Hythe skulls, their shortness, is very marked in these.

VARIATIONS IN SUTURES, FORM, ETC.

Bathrocephaly.

A marked bulging in the occipital region occurs in 51 of the 590 skulls, *i.e.*, in 8·6 per cent. It is, relatively, more frequent in males than in females, and in nearly two-thirds of the cases in which it occurs is associated with numerous wormian bones in the lambdoid suture. Dr. Macdonell found it in 5·2 per cent. of his Whitechapel skulls and in 11·6 per cent. of the Moorfields series. It is a little interesting to notice that the ophryo-maximal length of the male bathrocephalic skulls is 18·1 cm. against 17·7 cm., which is the average for the whole male Hythe series, while in the female skulls the bathrocephalic work out at 17·3 cm. against the total average of 17·1 cm.

It is evident, however, that this variation is as likely to occur in a series of short English skulls as in a series of long ones.

Scaphocephaly.

This abnormality is singularly common in the Hythe skulls, occurring in about 6·5 per cent. of them. It is, proportionally, nearly twice as common in males as in females, and does not seem to be affected by the skull being over or under forty years of age.

I have not been able to associate this condition with premature closure of the sagittal suture, though, in several cases, it co-exists with a persistent metopic suture, and then is usually more marked in the frontal region.

From a careful observation of these scaphocephalic and bathrocephalic skulls I cannot help feeling a suspicion that the condition may be accentuated by, if it is

not due to, postmortem pressure, especially when skulls are stacked in heaps. Vertical pressure would accentuate bathrocephaly while lateral pressure, when the skull is on its side, might increase scaphocephaly by pressing the lower ends of the parietals toward one another. I cannot find, however, that the scaphocephalic skulls are markedly narrower than the others, while in one or two cases, though very rarely, the two abnormalities co-exist, so that, at present, I have no proof whatever of my suspicion.

Plagiocephaly.

Plagiocephaly was found in eight cases: three males, four females and one child. In three of these its occurrence could be traced to early closure of one-half of the coronal suture, in all cases the left half. In the other examples the sutures were either not closed at all, as in the child, or all closed.

Metopism.

Altogether there are fifty-two cases of unclosed or partly closed metopic sutures in the 590 skulls—practically 9 per cent. The percentage does not appreciably differ in the two sexes.

Under twenty years of age the percentage is 20·8. Between twenty and forty it is 9·8 per cent., while over forty it is only found in 6·4 per cent.

Dr. Macdonell calls attention to the fact that the late closure of this suture allows the frontal region of the skull to broaden. I have gone into this and find that he is perfectly right, because the average frontal breadth of the metopic skulls, excluding the children, is 10·4 cm., while the average adult frontal breadth of the two sexes is 9·8 cm. There is, therefore, an average gain of 6 mm. in metopic skulls of this series, against 2 to 3 mm. in the Whitechapel series. The metopic skulls have also an average increase of 1·3 mm. in the greatest parietal breadth.

I have twice found the suture co-existing with marked post coronal depression though this is probably only a coincidence.

Mastoid Suture.

The suture on the external surface of the mastoid process, caused by the overlapping of a scale-like plate of the squamous part of the temporal bone, was seen as a perfectly evident structure in about 9 per cent. of these skulls. It is difficult, however, to give a definite percentage, since, when once the eye has become used to looking for it, traces can be found very much oftener, indeed, in nearly half the skulls examined.

Post Coronal Depression.

I only found six well marked cases of this among the 590 skulls, and am sure that, in any case, it is not nearly so common as among the London crania recorded by Macdonell: just as in his skulls the abnormality was most frequent in women, there being four female to two male instances of it.

Pterion and Epipteric Ossicle.

In those cases in which no ossicle existed the parietal bone always articulated with the alisphenoid. In all the 590 skulls I saw no example of the temporal articulating with the frontal. In one case only did the four bones meet in one point, and that was on the right side.

Fifty-five skulls out of the 590 have pterionic ossicles or epipteric bones on one or both sides (9·3 per cent.). Of these, 28 had a bone on the right side only, 11 on the left side only, while in 16 there was one on each side. It is remarkable that the proportion of epipteric bones is, in this collection, more than twice as great in females as it is in males.

I regard this marked preference of the epipteric bone for the right side and female sex as more than a mere chance, and believe that it is worth while seeking an explanation.

Occasionally, more than one epipteric bone may be present. I met with one case of three on the right side and another of three on the left. The distribution of these bones may be tabulated in the following way :—

TABLE 6 (FREQUENCY OF EPIPTERIC BONES).

	Males.	Females.	Children.	Total.
Right ...	9	19	—	28
Left ...	6	5	—	11
Both sides ...	6	9	1	16
	21	33	1	55

Asterion Ossicle.

This ossicle, sometimes known as the bone of the lateral fontanelle, is found at the posterior inferior angle of the parietal bone and is not nearly so common as the epipteric. I only saw it in 20 out of the 590 skulls (3·4 per cent.). Like the epipteric bone it was nearly twice as common, proportionally, in females as in males, and was also rather more common on the right than on the left side, though, as it was usually bilateral, this was not so apparent as in the former bone.

TABLE 7 (FREQUENCY OF ASTERION OSSICLE).

	Males.	Females.	Children.	Total.
Right ...	2	4	0	6
Left ...	1	0	0	1
Both sides ...	6	7	0	13
	9	11	0	20

Bregmatic Ossicle.

The bregmatic ossicle (*os bregmæ*, *os antiepilepticum*, interfrontal bone) was found six times, three times in each sex. It was, therefore, present in about 1 per cent., which is about the same frequency as in the Whitechapel skulls though less than in those of the Moorfield series, where it was found in nearly 3 per cent. Taking the three series it may be said, provisionally, to be present once in about 75 English skulls.

The Supra-occipital Region.

The possible subdivisions of the supra-occipital bone are very numerous and no account which I have come across is sufficient to classify all the changes which are rung in this collection. The best account of the various ossicles which I have seen is that by Professor Hepburn of Cardiff (*J. Anat. and Phys.*, Vol. 42, p. 88), and my thanks are due to him for specially directing my attention to this region.

As he points out, the occipito-interparietal suture which sometimes divides the membranous from the cartilaginous part of the supra-occipital is above the superior curved line, sometimes by more than half an inch, but it always seems to start laterally from the asterion.

Remains of this suture are sometimes found, and are usually symmetrical. They run for an inch or two toward the mid-line.

That part of the supra-occipital bone which is above this occipito-interparietal suture, that is to say, the interparietal bone, may be divided by sutures into a median *os pentagonale* and two lateral *ossa triangularia*. These have been excellently demonstrated in the photographs of some of Macdonell's Moorfields and Whitechapel crania, and are marked O.P. and O.T., respectively, in his accompanying diagram. The sutures between any of these may be obliterated or any one or two of them may be united with the cartilaginous part of the supra-occipital below.

The apex of the supra-occipital bone may be separate and so may form a lambdoid ossicle (L.O.). This varies very greatly in size, but never, as far as I have seen, encroaches on the area of the *ossa triangularia*. It, in its turn, may be divided into right and left halves, though not always symmetrically; or it may be divided transversely into anterior and posterior parts. To still further complicate the matter the *os pentagonale* may be divided into lateral halves, of which only one may remain separate.

In one case a small wormian bone was found in the posterior part of the sagittal suture, quite distinct from the various occipital elements, but likely to be mistaken for one of them. This may be a purely fortuitous occurrence, but if it occurs again, it might be convenient to speak of it as the post sagittal ossicle.

The possible combinations of these various bones may be very numerous, but practically I met with thirteen among the Hythe skulls.

They are as follows :—

1. Complete interparietal bone (composed of the fused *os pentagonale*, *ossa triangularia* and lambdoid ossicle). 1 ♀.
2. *Os pentagonale* alone separate. 3 (2 ♂ 1 child).
3. *Os pentagonale* and one *os triangulare* separate. 1 ♂ (L. side).
4. Lateral half of *os pentagonale* alone separate. 1 ♀ (L. $\frac{1}{2}$).
5. Symmetrical *ossa triangularia* alone separate. 3 ♂.
6. Right *os triangulare* alone separate. 2 (1 ♂ 1 ♀).
7. Left *os triangulare* alone separate. 2 ♂.
8. Lateral remnants of parieto—interparietal suture. 4 (3 ♂ 1 ♀).
9. Lambdoid ossicle alone separate. 13 (11 ♂ 1 ♀ 1 child).
10. Bilateral lambdoid ossicles. 2 ♀.
11. Lateral half of lambdoid ossicle alone separate. 1 ♂ (R. $\frac{1}{2}$).
12. Lambdoid ossicle divided transversely into anterior and posterior parts. 1 ♂.
13. Post sagittal ossicle. 1 ♀.

Odontoid Facet.

A facet in the anterior margin of the *foramen magnum*, for articulation with the odontoid process of the axis, was found six times, four being males and two females.

Paroccipital Process.

Paroccipital processes were only seen twice. In one case, a male, they were bilateral, while in the other, a female, the process was only present on the left side. In neither case were they long enough to articulate with the transverse process of the atlas.

Conclusions.

The evidence at my disposal leaves me little doubt that this series of skulls belonged to Kentish men, most of whom lived in the fourteenth and fifteenth centuries; that the skulls and other bones were exhumed, according to the mediæval custom, and stacked in the vault or processional way. They are skulls remarkable for their shortness, though of good breadth and height, and in many of them the occiput is nearly vertical. They more closely resemble the Bavarian, or a combination of the Bavarian and Würtemberg skulls, the measurements of which are given for comparison, than they do the Whitechapel or Moorfields crania. They entirely fail to substantiate the theory which Dr. Macdonell advances that, during the last two or three centuries, a marked change has been going on in the shape of English skulls; that their length has been decreasing while their breadth has increased.

As far as we know, neither Dr. Macdonell nor I have any right to assume that our series are representative of English skulls as a whole. He has shown most

successfully what the skull of the seventeenth century Londoner was like. I have tried to show what the East Kent man's skull was like a couple of centuries earlier.

Neither of us has done anything more. We are still in ignorance of the skull shapes of other parts of England in the past, and, until we can get some more long series of measurements taken by people with some experience, we had much better realize this fact.

MALES.

No.	No. at Hythe.	Ophryo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
1	4	168	171	143	100	140	122	851	833	
2	5	179	179	150 ?	97	131	—	838	732	Metopic. Small lambdoid ossicle.
3	6	175	176	136	90	133	117	775	760	Slightly bathrocephalic with wormian bones.
4	14	168	171	140	101	126	117	833	750	Scaphocephalic.
5	15	177	177	144	100	134	118	814	757	Metopic.
6	18	175	178	135	98	125	112	771	714	Asterion ossicle on right side.
7	36	170	172	144	102	129	118	847	759	
8	45	177	175	153	104	144	129	864	814	Symmetrical <i>ossa triangularia</i> in occipital.
9	49	177	180	147	107	144	127	831	814	Epipteric bone on right side. Some bathrocephaly without wormian bones.
10	60	170	170	141	100	124	118	799	729	
11	61	183	184	139	95	141	125	760	770	Scaphocephalic. Bathrocephalic. Lambdoid ossicle.
12	83	172	171	150	98	127	120	872	738	Epipteric bone on left side.
13	100	167	170	142	94	125	112	850	749	
? 14	101	171	170	142	93	135	125	830	789	
15	102	166	167	151	98	133	125	910	801	
16	104	187	185	154	109	—	—	824	—	Metopic. <i>Os pentagonale</i> in occipital.
17	112	180	183	142	95	128	112	789	711	Scaphocephalic.
18	113	170	172	141	100	138	122	829	812	
19	114	181	180	149	103	138	129	823	762	
20	120	172	172	144	98	135	123	837	785	
21	132	182	183	140	99	126	116	769	692	Metopic. Depression just behind bregma. Palatine torus.
22	155	183	183	144	98	135	122	787	738	Bathrocephalic with wormian bones.
23	161	180	180	131	95	131	120	728	728	Scaphocephalic.
? 24	171	172	171	143	98	140	120	831	814	
25	173	169	172	143	104	128	120	846	757	
26	175	181	181	145	94	137	123	801	757	Bathrocephalic without wormian bones. Epipteric bone on right side.
27	178	183	183	142	93	129	119	776	705	
28	188	187	188	141	92	137	119	754	733	Scaphocephalic.
29	189	185	187	150	97	135	—	811	730	Metopic. Small lambdoid ossicle.
30	192	184	185	143	100	139	119	777	755	
31	197	177	179	134	94	127	114	757	718	Markedly scaphocephalic. Epip- teric bone on left side.
32	207	176	179	143	99	140	122	813	795	
33	209	179	183	147	101	133	126	821	743	
34	210	174	176	138	98	129	—	793	741	
35	214	166	167	139	98	132	115 ?	837	795	

MALES—*continued.*

No.	No. at Hythe.	Ophryo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basio-infragmatic height.	Auricular height.	Breadth index.	Height index.	
36	215	195	197	146	95	130	121	749	667	
37	217	168	169	147	100	133	123	875	792	Epipteric bone on right side.
38	221	183	183	138	97	132	119	754	721	
39	223	173	177	139	102	145	126	803	838	Scaphocephalic.
40	225	177	178	139	96	132	125	785	746	Epipteric bone on left side.
41	226	167	170	127	95	128	111	760	766	Scaphocephalic.
42	227	172	176	134	87	124	108	779	721	
43	233	181	182	140	103	135	117	773	746	
44	237	170	171	143	93	129	118	841	759	
45	238	178	182	145	92	134	—	815	753	
46	244	192	195	147	106	144	125	766	750	Plagiocephalic without closure of coronal suture.
47	252	190	190	151	—	142	130	795	747	Bathrocephalic with wormian bones.
48	254	189	188	141	105	129	121	746	683	
49	256	181	184	140	97	128	111	773	707	
? 50	263	173	172	145	95	136	118	838	786	Bathrocephalic. Large <i>os triangulare</i> on left side.
51	264	179	181	140	102	137	122	782	765	
? 52	269	164	163	133	93	130	112	811	793	
53	270	179	179	152	107	134	122	849	749	Metopic.
54	271	181	181	144	100	128	116	796	707	
55	273	164	164	137	97	125	113	835	762	
56	275	179	182	142	99	131	119	793	732	
57	277	171	170	150	95	129	123	877	754	
58	283	181	185	145	98	142	124	801	785	
59	288	178	179	147	102	133	116	826	747	
60	292	171	173	131	93	126	111	766	737	Half lambdoid ossicle on right side of lambda.
61	294	176	179	142	99	128	114	807	727	Bathrocephalic.
62	297	172	172	133	95	130	114	773	756	
63	301	178	178	142	101	139	127	798	781	
64	305	176	178	138	97	133	116	784	756	
65	308	183	184	150	104	135	123	820	738	
66	320	176	176	148	100	138	128	841	784	Slightly scaphocephalic. EpIPTeric bone on each side.
67	321	170	171	138	102	130	118	812	765	
68	329	173	172	144	97	132	118	832	763	Asterion ossicle on each side
69	340	183	185	148	102	138	125	809	754	Palatine torus.
70	342	176	178	131	97	129	112	744	733	Bathrocephalic without wormian bones.
71	345	178	178	143	94	130	120	803	730	
72	346	179	179	148	100	137	125	827	765	Slightly bathrocephalic. Asterion ossicle on each side.
73	347	181	182	143	99	129	119	790	713	
74	358	175	176	148	87	132	120	846	754	
75	363	177	177	139	104	135	119	785	763	
76	368	178	181	139	102	138	119	781	775	
77	372	189	189	141	102	131	122	746	693	
78	386	160	160	140	95	124	116	875	775	
? 79	387	167	166	138	96	135	120	826	808	Slight palatine torus. EpIPTeric bone on right side. Paroccipital process on each side.
80	388	173	173	150	99	130	126	867	751	Slight plagiocephaly without obliteration of sutures.
81	389	173	174	145	95	131	120	838	757	EpIPTeric bone on left side.
82	392	170	173	138	99	136	119	812	800	Odontoid facet. Palatine torus.

MALES—*continued.*

No.	No. at Hythe.	Ophryo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
83	395	176	176	136	98	132	118	773	750	Metopic. Scaphocephalic.
84	397	181	181	150	102	130	120	829	718	<i>Os pentagonale</i> and left <i>os triangulare</i> .
85	400	169	172	140	97	132	115	828	781	<i>Os bregmæ</i> . Bathrocephaly with wormian bones.
86	405	179	178	149	104	141	128	832	788	Epipteric bone on each side.
87	406	171	174	142	97	141	121	830	825	Pterion comes to a point on right side.
88	413	173	173	148	102	133	121	855	769	Metopic.
89	415	177	177	148	97	136	123	836	768	
90	416	179	181	140?	98	125	119	782	698	Metopic.
91	423	187	188	145	108	135	128	775	722	Bathrocephaly with wormian bones.
92	426	188	188	142	95	139	118	755	739	Asterion ossicle each side.
93	427	186	185	145	105	141	128	780	758	Asterion ossicle left side. Small lambdoid ossicle.
94	433	174	176	141	96	136	123	810	782	
95	437	168	169	143	91	126	117	851	750	
96	439	182	184	144?	104	129	115	791	709	Epipteric bone on left side.
97	441	173	173	145	100	136	124	838	786	Depression behind bregma.
98	442	173	178	142	98	130	116	821	751	
99	452	173	175	145	95	119	115	838	688	Bathrocephaly with wormian bones. Left <i>os triangulare</i> .
100	453	170	171	131	97	127	111	771	747	Scaphocephalic.
101	591	173	177	151	107	140	122	873	809	
102	454	164	166	142	101	125	116	866	762	
103	455	173	175	131	101	131	116	757	757	
104	461	168	167	141	104	129	120	839	768	
105	471	171	173	134	97	132	111	784	772	Lambdoid ossicle.
? 106	475	168	168	143	92	122	116	851	726	
107	478	173	177	133	89	133	118	769	769	Bathrocephalic with wormian bones and lambdoid ossicle.
108	484	169	173	136	95	132	116	805	781	
109	485	185	186	137	96	125	117	741	676	Scaphocephalic. Epipteric bone on right side.
110	487	179	180	133	95	124	112	743	693	
111	496	166	168	146	102	129	115	880	777	Asterion ossicle each side. Interparietal suture near asterion each side.
112	503	178	179	140	95	131	119	787	736	Bathrocephaly without wormian bones.
113	510	175	178	133	93	125	113	760	714	
114	521	180	183	144	103	135	116	800	750	
115	525	186	185	161	107	—	—	866	—	Metopic. Epipteric bone on right. <i>Os triangulare</i> on right.
116	544	166	171	140	94	128	119	843	771	Odontoid facet.
117	548	171	172	147	101	134	117	860	784	
118	555	182	183	140	95	126	—	769	692	Scaphocephalic. Epipteric bone left.
? 119	559	173	171	150	102	134	—	867	775	Vestige of interparietal suture near asterion on each side.
120	565	172	174	142	95	137	—	826	797	Two lambdoid ossicles (anteroposterior).
121	568	185	183	147	94	—	—	795	—	Bathrocephalic with lambdoid ossicle and other wormian bones in lambdoid suture.
122	575	167	172	146	98	130	116	874	778	
123	576	171	171	146	100	132	118	854	772	

MALES—*continued.*

No.	No. at Hythe.	Ophryomaximal length.	Glabellomaximal length.	Parietal breadth.	Frontal breadth.	Basipregmatic height.	Auricular height.	Breadth index.	Height index.	
124	578	175	—	154	—	137	128	880	783	
125	589	184	184	158	108	151	136	859	821	
126	7	181	182	138	100	131	117	762	724	Metopic.
127	9	186	186	147	104	—	—	790	—	
128	12	176	178	136	92	139	125	773	790	Odontoid facet. Slightly scaphocephalic.
129	13	182	186	147	103	125?	121	808	687?	
130	16	182	184	147	97	—	118	808	—	
131	17	180	181	140	96	129	119	778	717	
132	19	178	182	151	102	—	—	848	—	
133	22	179	180	147	96	138	—	821	771	
134	23	185	184	157	109	138	120	849	746	Metopic.
135	27	175	177	141	97	135	120	806	771	
136	28	182	183	151	—	132	123	830	725	
137	29	170	173	144	98	137	123	847	806	
138	30	175	179	144	103	137	120	823	783	
139	32	190	192	146	—	135	—	768	711	Metopic suture open externally above.
140	35	181	181	139	103	138	123	768	762	Slightly bathrocephalic without wormian bones.
141	37	182	184	145	—	144	120	797	791	Scaphocephalic.
142	38	172	173	143	—	135	123	831	785	
143	41	187	189	143	107	143	130	765	765	Slightly bathrocephalic with wormian bones.
? 144	42	180	178	147	107	132	124	817	733	
145	43	175	175	151	103	134	121	863	766	
146	46	182	182	154	103	136	128	846	747	
147	48	190	192	147	95	135	122	774	711	
148	50	167	169	147	101	136	123	880	814	
149	51	184	187	144	103	142	123	783	772	Bathrocephalic with wormian bones.
150	53	184	188	147	107	142	128	803	776	
151	55	173	173	147	101	138	125	850	798	
152	56	190	192	144	99	134	121	758	705	Symmetrical <i>ossa triangularia</i> in occipital region.
153	57	179	179	146	106	147	127	816	821	
154	58	185	187	148	105	140	126	800	757	
? 155	59	179	177	143	107	138	122	799	771	
156	63	167	170	145	97	142	126	868	850	
157	66	165	171	153	101	135	123	927	818	Epipteris bone on right side.
158	67	176	178	149	101	—	120	847	—	Bathrocephalic with wormian bones.
159	69	178	180	136	97	130	117	764	730	
160	70	180	181	146	104	137	118	811	761	
161	72	179	183	142	91	—	—	793	—	
162	75	172	172	145	96	127	115	843	738	Metopic suture open externally.
163	76	175	174	141	102	124	117	806	709	Metopic suture but also open internally below.
164	77	175	176	151	105	124	125	863	709	Metopic suture open externally.
165	81	177	181	143	98	134	121	808	757	Scaphocephalic.
166	82	173	174	141	104	132	115	815	763	Scaphocephalic. Metopic suture open externally.
167	86	173	174	134	92	135	116	775	780	Diamond-shaped <i>os pentagonale</i> .
168	90	183	182	151	112	138	128	825	754	Scaphocephalic.
169	91	180	183	146	105	143	124	811	794	
170	93	177	179	144	100	130	116	814	734	Bathrocephalic with wormian bones.
171	94	192	192	143	100	142	126	745	740	Bathrocephalic with wormian bones. Scaphocephalic.
172	95	170	172	149	102	130	121	876	765	

MALES—*continued.*

No.	No. at Hythe.	Opbyro-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
173	96	177	178	147	99	132	119	831	746	Bathrocephalic.
174	97	192	194	148	100	128	122	771	667	
175	98	190	192	141	104	—	122	742	—	
176	99	183	185	142	97	140	119	776	765	
177	103	179	178	143	102	125	110	799	698	Metopic. Traces of metopic suture externally.
178	105	185	188	153	101	135	119	827	719	
179	106	172	173	161	111	138	129	936	802	
180	109	187	192	141	93	126	109	754	674	
181	111	163	166	142	99	127	116	871	779	Bathrocephalic with wormian bones.
182	121	184	184	149	106	137	124	810	745	
183	122	164	169	142	107	131	—	866	799	
184	125	174	177	151	94	126	119	868	724	
185	128	176	178	145	96	134	120	824	761	Bathrocephalic with wormian bones.
186	134	179	180	147	105	137	125	821	765	
187	138	188	189	141	99	134	119	750	713	
188	140	183	187	136	98	134	118	743	732	
189	158	180	181	135	96	125	122	750	694	Epipteric bone on right side.
190	160	174	175	136	98	143	124	782	822	
191	163	190	191	141	101	128	126	742	674	
192	165	170	170	150	101	136	127	882	800	
193	166	176	177	141	95	137	122	801	778	Bathrocephalic. Epipteric bone on each side.
194	168	177	178	147	101	135	121	831	763	
195	172	180	181	143	98	135	123	794	750	
196	174	174	177	145	103	142	—	833	816	
197	179	178	176	146	94	135	125	820	755	Scaphocephalic.
198	182	182	184	141	99	138	125	775	758	
199	183	185	189	147	101	134	123	795	724	
200	185	185	186	147	103	136	123	795	735	
201	190	175	176	150 ?	106	133 ?	120	857 ?	760 ?	Metopic suture open externally.
202	201	171	171	141	98	140	120	825	819	
203	201A	177	178	143	107	138	121	808	780	
204	203	178	183	144	103	127	119	809	713	
205	204	176	178	144	105	138	125	818	784	Scaphocephalic.
206	218	185	185	146	108	142	128	789	768	
207	222	187	189	147	97	133	124	786	711	
208	224	171	173	153	105	136	127	895	795	
209	228	170	172	142	98	133	116	835	782	Trace of interparietal suture near asterion.
210	229	176	177	143	101	139	126	813	790	
211	231	183	185	141	98	134	117	770	732	
212	234	173	177	128	92	135	120	740	780	
213	236	180	179	146	103	136	122	811	756	Metopic suture open in upper half externally, in upper quarter internally. <i>Os bregmæ.</i> Right ossicle of asterion.
214	239	173	178	146	100	133	123	844	769	
215	240	178	177	144	96	137	123	809	770	
216	241	173	176	137	98	134	121	792	775	
217	242	179	183	145	105	138	122	810	771	Slightly bathrocephalic with wormian bones.
218	243	181	183	141	101	140	123	779	773	
219	245	181	184	—	102	132	—	—	729	
? 220	246	169	169	143	97	130	119	846	769	
221	247	172	177	144	101	136	127	837	791	

MALES—*continued.*

No.	No. at Hythe.	Ophtymo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
222	248	173	177	—	108	142	—	—	821	
223	249	180	180	150	103	143	132	833	794	
224	250	191	194	142	96	140	131	743	733	Bathrocephalic without wormian bones.
225	251	184	186	157	107	144	125	853	783	Plagiocephalic. Sutures all closed inside.
226	259	173	174	150	104	137	120	867	792	
227	261	169	175	134	92	131	118	793	775	
228	266	183	187	146	98	142	125	798	776	Scaphocephalic.
229	274	170	174	137	92	131	120	806	771	
230	279	182	181	152	102	131	118	835	720	
231	280	171	174	142	96	120	108	830	702	
232	293	184	186	139	99	131	120	755	712	
233	304	180	181	152	104	140	130	844	778	
234	309	181	181	140	94	144	122	773	796	
235	311	177	176	139	101	134	121	785	757	
236	312	175	174	135	103	126	118	771	720	
237	300	180	183	147	103	141	123	817	783	
238	299	182	184	141	99	137	122	775	753	
239	314	174	175	146	94	130	123	839	747	
240	315	173	172	141	96	132	120	815	763	Asterion ossicle on right side.
241	316	167	171	144	101	131	117	862	784	
242	319	179	183	153	105	137	126	855	765	
243	324	183	181	147	104	—	130	803	—	
244	331	177	178	142	101	145	127	802	819	
245	334	182	181	140	102	125	122	769	687	
246	341	171	175	141	98	135	119	825	789	Some reddish hair found on occiput.
247	349	180	182	141	98	125	112	783	694	Metopic suture open externally and below internally. Asterion ossicle on each side.
248	349A	176	181	145	99	138	122	824	784	
249	352	172	171	146	98	128	117	849	744	
250	354	171	173	145	97	128	118	848	749	
251	355	174	175	141	98	137	121	810	787	
252	356	186	188	139	95	128	119	747	688	Scaphocephalic.
253	357	175	174	154	109	140	131	880	800	
254	359	165	167	142	95	137	122	861	830	
255	364	175	177	148	99	135	125	846	771	
256	365	182	186	139	100	132	120	764	725	
257	369	171	173	134	96	128	115	784	749	Palatine torus.
258	373	179	182	150	89	138	125	838	771	
259	375	193	195	145	97	128	119	751	663	Bathrocephalic with wormian bones.
260	381	183	183	135	94	127	115	738	694	
261	383	183	—	146	101	—	—	798	—	
262	385	175	178	152	104	138	123	869	789	Bathrocephalic with wormian bones.
263	388A	174	177	147	101	137	124	845	787	
264	390	182	186	142	99	133	124	780	731	Slightly bathrocephalic. Diamond-shaped lambdoid ossicle.
265	391	167	169	138	90	129	115	826	772	Slightly bathrocephalic.
266	393	185	186	139	100	135	123	751	730	Scaphocephalic. Slightly bathrocephalic.
267	394	176	182	142	100	138	123	807	784	
268	396	165	169	138	94	131	122	836	794	Epipteric bone on each side.
269	399	184	188	146	106	133	124	793	723	
270	401	176	179	152	95	132	123	864	750	
271	407	—	—	146	—	132	—	—	—	Bathrocephalic with wormian bones. Lambdoid ossicle.
272	410	182	182	143	105	141	120	786	775	Asterion ossicle on each side.
273	411	167	170	144	104	136	119	862	814	

MALES—*continued.*

No.	No. at Hythe.	Ophryo-maximal length.	Glabello-maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
274	412	183	187	144	94	134	121	787	732	Slightly bathrocephalic.
275	414	179	—	130	99	134	119	726	749	
276	422	169	171	144	97	132	118	852	769	
277	429	182	186	142	103	140	124	780	769	
278	430	177	181	138	96	131	118	780	740	
279	431	171	171	146	106	131	120	854	766	Scaphocephalic.
										Metopic suture partly open above and below externally; closed internally.
280	435	176	179	150	103	141	127	852	801	Epipteric bone on right side.
281	436	180	179	142	96	131	123	789	728	
282	438	178	180	145	97	128	119	815	719	
283	440	175	180	153	105	136	129	874	777	Scaphocephalic.
284	443	178	183	143	96	133	119	803	691	
285	444	170	174	146	91	131	119	859	771	
286	445	178	180	136	102	128	118	764	719	
287	446	180	183	150	105	136	119	833	756	
288	447	170	171	136	102	129	116	800	759	Scaphocephalic. Bregmatic ossicle.
289	448	170	171	141	98	135	122	829	794	Scaphocephalic.
290	450	170	173	134	94	130	116	788	765	Scaphocephalic. Lambdoid ossicle.
291	451	173	173	146	102	130	119	844	751	Odontoid facet.
292	457	183	181	149	97	128	122	814	699	Asterion ossicle on each side.
293	458	171	173	152	96	137	119	889	801	
294	459	175	178	142	97	128	116	811	731	
295	463	185	185	142	101	—	124	768	—	Bathrocephaly with wormian bones.
296	469	186	188	135	94	—	121	726	—	
297	473	180	—	142	104	126	115	789	700	
										Metopic suture partly open above and below externally; closed internally.
298	477	187	—	145	105	131	119	775	701	
299	495	177	178	142	100	132	120	802	746	
300	504	177	177	144	101	—	—	814	—	
301	508	175	178	132	93	129	112	754	737	Scaphocephalic.
302	514	172	173	142	94	126	117	826	733	
303	515	183	186	147	94?	—	—	803	—	
304	529	165	169	135	92	120	107	818	727	
305	530	178	179	139	100	—	—	781	—	
306	531	170	173	142	—	—	—	835	—	Large healing wound on left parietal.
										Symmetrical <i>ossa triangularia</i> in occipital.
307	538	179	181	136	96	132	—	760	737	Trace of right interparietal suture near asterion.
308	539	187	192	140	102	136	122	749	727	
309	540	187	191	142	101	135	121	759	722	Bathrocephalic with wormian bones.
310	541	186	188	141	104	—	—	758	—	
311	542	171	175	142	103	130	114	830	760	
312	545	182	186	144	99	129	117	791	709	
313	549	185	187	141	103	130	117	762	703	
314	551	187	190?	142	107	—	113	759	—	
315	552	184	185	140	104	132	—	761	717	
316	567	175	175	139	105	133	118	794	760	
317	570	—	—	141	108	130	—	—	—	
318	571	175	178	151	105	140	127	865	800	
319	572	174	177	140	102	123	115	805	707	
320	573	171	170	145	98	138	—	848	807	Metopic.
321	577	167	168	142	100	—	—	850	—	
322	582	172	174	146	99	133	—	849	773	
323	583	177	176	139	94	125	117	785	706	
324	585	174	174	136	104	134	119	782	770	
325	587	174	174	154	104	140	127	885	805	
326	588	184	184	153	100	135	125	832	734	

FEMALES.

No.	No. of Hythe.	Ophryo maximal length.	Glabello maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
327	2	171	173	140	91	121	112	819	708	
328	8	173	174	141	94	127	115	815	734	Asterion ossicle on each side.
329	11	163	164	137	95	123	115	840	755	
330	20	172	172	150	97	132	120	872	767	
331	21	172	173	134	96	124	111	779	721	
332	24	162	163	145	—	122	114	895	753	
333	26	170	169	137	94	123	116	806	724	
334	33	170	170	140	96	132	120	824	776	
335	52	174	174	136	93	124	119	782	713	
336	73	174	174	144	98	131	120	828	753	
337	65	171	172	140	98	117	112	819	684	
338	74	179	177	139	106	125	113	777	698	
? 339	25	181	184	151	105	137	125	834	757	
340	107	162	163	136	94	120	107	840	741	Epipteric bone on right side.
341	108	164	163	130	95	132	113	793	805	Epipteric bone on right side.
342	129	167	171	144	96	126	111	862	754	
343	135	164	165	137	95	125	112	835	762	Epipteric bone on right side.
344	139	177	177	152	97	124	119	859	701	
345	141	177	176	134	95	128	114	757	723	
346	159	169	170	141	93	136	126	834	805	
? 347	164	175	176	144	96	137	122	859	701	
348	176	167	168	140	97	—	—	838	—	
? 349	180	181	181	144	103	137	122	796	757	
? 350	187	170	173	141	101	131	120	829	771	
351	193	170	168	146	96	124	115	859	729	
352	194	166	167	133	95	125	114	801	753	
? 353	199	180	181	145	95	132	119	806	733	
354	200	172	172	145	94	130	115	843	756	
355	206	169	168	147	100	140	119	870	828	
356	213	171	173	147	92	129	119	860	754	
? 357	216	176	178	134	98	132	116	761	750	
? 358	272	167	168	142	96	124	115	850	743	
359	284	171	170	147	102	127	122	860	743	
360	287	170	168	135	95	125	113	794	735	
? 361	289	176	179	136	100	135	123	773	767	Scaphocephalic. Bathrocephalic.
? 362	291	173	173	149	109	132	120	861	763	Asterion ossicle on right side.
363	302	182	182	142	90	129	114	780	709	
364	303	169	170	147	101	130	119	870	769	
? 365	307	170	171	155	99	134	—	912	782	
366	310	164	166	149	100	132	125	909	805	
367	313	173	175	145	95	134	122	838	775	
? 368	317	178	180	134	102	134	116	753	753	
? 369	318	159	160	138	92	128	115	868	792	
370	327	159	162	139	93	130	114	874	818	
371	335	180	180	141	95	127	114	783	706	
372	337	176	176	147	103	129	114	835	733	Bathrocephalic with wormian bones.
373	338	177	177	141	97	130	119	797	734	
374	348	175	176	141	101	138	119	806	789	
375	350	166	166	141	96	128	118	849	771	
376	353	170	170	135	95	125	109	794	735	
377	360	167	168	137	94	120	119	820	719	Anterior part of foramen magnum deeply notched.
? 378	362	170	173	136	94	134	120	800	788	Scaphocephalic.
379	374	170	171	138	96	134	113	812	788	
380	382	171	172	137	100	127	114	801	743	Epipteric bone on each side.
										Small facet for odontoid.
381	417	177	177	140	93	134	119	791	757	

FEMALES—*continued.*

No.	No. at Hythe.	Ophryo maximal length.	Glabello maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
382	418	173	175	135	96	131	121	780	757	Bilateral wormian ossicle.
383	424	170	171	141	92	135	121	829	794	
384	434	162	161	142	92	123	119	877	759	
385	220	180	180	134	94	128	115	744	711	Perfect interparietal bone.
386	456	175	178	135	98	133	117	771	760	
387	468	170	171	133	101	127	113	782	747	
388	474	175	174	136	103	132	113	777	754	
389	479	181	180	142	108	137	125	785	757	
390	490	174	174	142	95	131	117	816	732	
391	493	170	171	135	98	121	111	794	—	
392	498	164	167	144	97	122	115	878	744	Epipteric bone on right side.
393	509	172	172	142	98	135	—	826	785	
394	519	174	175	145	94	126	120	833	724	
395	524	178	178	142	95	130	—	798	730	
396	526	161	164	146	101	130	—	907	807	
397	527	171	171	145	95	135	123	848	789	
398	528	170	168	138	94	120	113	812	706	
399	532	175	177	141	97	123	—	806	703	
400	537	169	168	143	97	125	119	846	740	
401	550	170	173	141	97	123	114	829	724	
402	564	164	165	142	90	—	115	866	—	
403	566	173	173	138	—	—	—	798	—	
404	569	165	167	139	101	125	112	842	758	
405	584	171	169	144	96	134	123	842	784	
406	497	170	171	137	92	123	110	806	724	
407	1	173	172	142	92	130	—	821	751	
408	3	176	174	143	97	127	—	813	722	
409	10	169	170	131	92	131	115	840	775	
410	31	170	171	145	97	127	114	853	747	
411	44	164	167	135	96	124	112	823	756	Epipteric bone on right side.
412	47	170	171	139	102	129	114	818	759	Epipteric bone on right side. Bathrocephalic without wormian bones.
413	62	168	168	139	100	131	116	827	780	Epipteric bone on right side.
414	64	178	178	141	96	121	113	792	680	
415	68	168	169	139	96	129	117	827	768	
416	71	164	163	135	96	122	112	823	744	
417	79	169	169	142	99	117	114	840	692	Metopic suture open externally and internally. Post coronal depression.
418	85	171	172	139	93	126	108	813	737	
419	87	174	174	133	92	123	112	764	707	
420	92	174	174	142	99	130	122	816	747	Metopic. Scaphocephalic.
421	100A	174	173	133	94	137	125	764	787	Epipteric bone on each side.
422	110	172	171	144	97	131	116	837	762	
423	117	169	168	133	92	130	117	787	769	
424	119	171	172	143	97	130	117	836	760	Scaphocephalic.
425	123	170	171	141	96	126	117	829	741	Slightly bathrocephalic with wormian bones.
426	124	168	167	143	95	117	112	851	696	Metopic. Epipteric bone on left side.
427	126	169	168	136	97	127	113	805	751	Asterion ossicle on each side.
428	130	172	172	148	95	131	115	860	762	
429	131	170	170	141	93	131	119	829	771	Slightly bathrocephalic without wormian bones.
430	136	175	175	130	94	133	118	743	760	Scaphocephalic. Epipteric bone on right side.
431	142	168	168	135	100	127	111	804	756	
432	144	174	174	144	98	132	117	828	757	
433	146	171	173	131	91	120	108	766	702	Asterion ossicle on right.

FEMALES—*continued.*

No.	No. at Hythe.	Ophryo maximal length.	Glabello maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
434	154	172	172	137	99	124	112	797	721	Epipteric bone on left side. Slightly scaphocephalic.
435	157	166	167	132	102	118	110	795	711	Metopic. Bathrocephalic with wormian bones.
436	162	165	167	141	90	121	112	855	733	
437	167	166	165	139	93	127	116	837	765	
438	170	166	165	138	96	131	117	831	789	
439	181	166	165	136	93	125	—	819	753	
440	184	172	174	144	99	127	118	837	738	
441	186	170	170	133	91	124	117	782	729	
442	191	167	167	140	99	135	116	838	808	
443	198	174	175	148	100	130	121	851	747	
444	205	179	178	140	93	127	114	782	709	
445	208	187	189	142	102	136	123	759	727	
446	211	158	156	134	90	126	115	848	797	
447	212	170	169	140	90	126	114	824	741	Epipteric bone on right side.
448	219	168	168	135	95	123	113	804	732	
449	232	179?	—	147	97	134	120	821	749	
450	235	161	161	130	98	125	110	807	776	
451	255	174	172	142	100	130	116	816	747	Metopic suture open externally and internally.
452	257	178	179	137	92	128	113	770	719	
453	258	172	172	144	96	130	115	837	756	Epipteric bone on left side.
454	262	170	169	134	92	132	118	788	776	
455	278	167	167	142	93	130	118	850	778	Epipteric bone on right side.
456	281	174	175	137	87	136	117	787	782	Odontoid facet.
457	253	166	171	140	92	139	121	843	837	Plagiocephalic without obliteration of sutures. Epipteric bone on left side.
458	285	170	169	134	92	132	118	788	776	Metopic.
459	286	188	185	138	98	—	118	734	—	Metopic. Slightly scaphocephalic in frontal region.
460	265	171	172	146	98	134	122	854	784	Epipteric bone on each side.
461	268	170	170	135	98	130	118	794	765	Metopic. Scaphocephalic. Small lambdoid ossicle.
462	276	167	166	131	96	128	119	784	766	Epipteric bone on each side. Asterion ossicle.
463	296	170	173	139	93	131	119	818	771	
? 464	298	184	185	137	104	122	114	745	663	Metopic. Bathrocephalic. Asterion ossicle on right side. Epipteric bone on each side.
465	306	167	168	137	98	125	112	820	749	Small bilateral lambdoid ossicles. Asterion ossicle on right side.
466	322	177	178	133	90	130	111	751	734	
467	326	164	164	144	97	128	117	878	780	
468	330	163	163	145	90	123	112	890	755	Large bregmatic ossicle.
469	323	165	166	146	96	126	121	885	764	
470	325	164	164	144	96	134	118	878	817	Asterion ossicle on each side.
471	332	183	184	130	97	124	113	710	678	Scaphocephalic.
472	333	179?	—	144	100	—	121	804	—	
? 473	366	174	175	139	99	119	108	799	684	
? 474	367	174	175	141	100	126	123	810	724	
475	336	172	172	143	97	130	120	831	756	Epipteric bone on right side.
476	339	171	172	138	93	130	114	807	760	Metopic.
477	351	177	176	145	98	128	119	819	723	
478	370	186	186	141	103	134	122	758	720	Upper half metopic suture open.
479	371	173	171	144	96	124	115	832	717	
480	361	156	155	149	90	122	119	955	782	

FEMALES—*continued.*

No.	No. at Hythe.	Ophryo maximal length.	Glabeilo maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
481	376	168	167	147	96	130	119	875	774	Metopic.
482	377	167	169	140	93	—	121	838	—	
? 483	379	177	180	136	96	134	119	768	757	Wormian bone in front of lambda.
484	380	175	175	132	92	127	115	754	726	
? 485	384	158	159	144	88	131	119	911	829	Plagiocephalic. Left half coronal suture obliterated.
486	398	160	159	133	94	126	110	831	788	
487	402	177	178	137	93	131	119	774	740	
488	404	162	164	145	98	128	115	895	790	Paroccipital process on left side.
? 489	408	166	168	138	97	123	114	831	741	
490	403	163	163	141	94	128	122	865	785	
491	409	161	159	142	100	127	115	882	789	Metopic suture closed internally in lower half. Epipteric bone on right side.
492	419	174	174	137	95	122	111	787	701	
493	420	172	172	140	98	125	115	814	727	
494	321	170	171	145	100	140	126	853	824	
? 495	425	162	166	145	88	120	119	895	778	Epipteric bone on left side.
496	428	177	177	141	95	134	120	797	757	Bregmatic ossicle.
497	432	161	162	143	91	129	118	888	801	
498	449	170	166	141	99	127	116	829	747	Metopic. Postcoronal depression.
499	460	175	176	130	91	132	115	743	750	
? 500	465	171	170	137	100	129	117	801	754	
501	466	177	179	134	99	128	115	757	723	
502	467	171	170	138	100	124	114	807	725	Bathrocephalic with wormian bones. Left half <i>os pentagonale</i> .
? 503	462	172	174	140	92	119	110	814	692	
? 504	464	174	177	151	96	124	113	868	713	
505	472	156	155	136	90	125	114	872	801	Plagiocephalic. Left half coronal suture obliterated.
506	480	182	183	145	100	129	118	797	709	Asterion ossicle on each side.
507	481	158	159	131	94	126	111	829	797	
508	482	170	170	136	96	120	109	800	706	
509	483	165	168	136	87	122	113	824	739	Three epipteric bones on right side.
510	486	176	176	138	92	126	115	784	716	One epipteric bone on right side, three on left side.
511	488	175	174	138	93	120	112	789	686	
512	489	174	173	132	93	127	107	759	730	
513	476	164	164	137	100	124	111	835	756	Epipteric bone on right side.
514	494	164	161	137	95	127	114	835	774	
? 515	499	165	166	139	95	124	113	842	751	Epipteric bone on right side.
? 516	500	176	177	140	95	124	—	795	705	
517	501	168	168	141	103	113	108	839	672	Odontoid facet. Post coronal depression.
518	502	168	168	133	92	124	107	792	738	
519	505	172	172	138	95	130	117	802	756	
520	506	166	168	134	90	122	113	807	735	Asterion ossicle on each side.
521	507	180	180	136	94	127	113	756	706	
522	513	157	157	139	96	121	—	874	761	
523	516	159	161	138	94	126	113	868	792	
524	517	185	182	141	108	121	115	762	654	Metopic suture open in lower half externally.
525	518	175	173	146	87	127	—	834	726	Bathrocephaly with wormian bones.
? 526	522	165	167	142	96	128	116	861	776	
527	535	162	160	142	89	122	113	877	753	Metopic.
528	543	168	169	136	90	129	111	810	768	

FEMALES—*continued.*

No.	No. at Hythe.	Ophryo maximal length.	Glabello maximal length.	Parietal breadth.	Frontal breadth.	Basibregmatic height.	Auricular height.	Breadth index.	Height index.	
? 529	546	170	171	138	92	121	110	812	712	
530	547	161	161	140	92	120	114	870	745	
531	553	180	186	135	91	—	—	750	—	Plagiocephalic. Left coronal suture obliterated.
532	554	167	168	136	—	—	—	814	—	
533	556	163	163	137	93	125	110	840	767	
534	557	160	161	136	99	127	112	850	794	
535	558	175	175	141	97	137	119	806	783	
536	560	170	169	141	97	130	117	829	765	Metopic. Scaphocephalic.
537	561	160	161	139	98	122	112	869	763	
538	563	157	157	135	90	123	116	860	783	Epipteric bone on each side.
? 539	574	180	—	143	95	131	118	794	728	Bathrocephalic with wormian bones.
540	579	167	166	142	98	133	120	850	796	
? 541	580	178	177	137	93	129	117	770	725	Occipito interparietal suture on each side near asterion.
542	581	174	173	152	95	134	122	874	770	
? 543	586	178	178	138	97	135	118	775	758	Slightly bathrocephalic with wormian bones. Epipteric bone on right side.
544	590	177	177	134	93	129	117	757	729	Bregmatic ossicle.
545	34	179	179	143	97	138	122	799	771	
? 546	54	184	184	153	104	127	120	832	690	
547	80	167	170	141	97	137	120	844	820	Epipteric bone on right side. <i>Os triangulare</i> on right side.
548	137	162	164	142	97	124	115	877	766	Epipteric bone on right side. Bathrocephalic with wormian bones.
? 549	143	173	173	136	96	126	111	786	728	Epipteric bone on right side.
550	169	179	180	135	100	124	117	755	693	
? 551	177	175	173	142	98	135	120	811	771	
552	196	183	183	136	90	118	113	743	645	
553	78	181	181	140	107	116	115	773	641	Metopic. Post coronal depression.
554	88	172	173	140	98	127	114	814	738	Epipteric bone on right side.
555	105A	173	172	147	99	123	117	850	711	Epipteric bone on right side.
556	328	168	168	144	94	128	117	857	762	Depression at obelion.

CHILDREN UNDER 20.

No.	No. at Hythe.	Approx. age.	Ophryo maximal length.	Glabello maximal length.	Parietal breadth.	Frontal breadth.	Basil-bregmatic height.	Auricular height.	Breadth index.	Height index.	
557	520	6	154	152	145	97	126	117	935	813	
558	148	7	154	150	132	89	123	—	857	799	Four parts of occipital bone separate.
559	149	7	169	162	136	98	123	—	805	728	Metopic. Occipital complete.
560	470	7	157	156	134	98	126	—	854	803	Metopic. Occipital complete.
561	267	7	165 ?	—	138	90	—	116	836 ?	—	Occipital bone missing.
562	127	8	166	165	144	94	133	122	867	801	
563	145	8	176	176	140	92	125 ?	113	795	710 ?	Basioccipital separate from exoccipital.
564	523	8	163	161	135	88	125	114	828	767	Occipital complete.
565	84	9	162	162	138	90	113	106	852	697	Occipital complete.
566	156	9	154	148	137	94	113	107	890	779	
567	151	9	165	164	143	86	125 ?	119	867	758	Basioccipital separate from exoccipital.
568	195	9	173 ?	—	145	99	—	118	838	—	Occipital bone missing.
569	492	9	173	173	135	96	125	114	780	723	Metopic.
570	150	10	161	162	144	90	120	—	894	745	
571	153	10	158	157	141	98	123	118	892	778	
572	295	10	164	162	134	100	124	114	817	756	Metopic.
573	343	11	166	165	138	99	125	115	831	753	Metopic.
574	491	11	169	168	136	91	127	—	805	751	
575	260	12	171	172	131	91	121	107	766	708	Plagiocephalic.
576	533	12	168	165	134	96	119	111	798	708	Metopic suture open externally in lower half. Epipteric bone on each side.
577	290	12	150	149	129	86	122	110	860	813	
578	282	12	173	173	147	96	125	113	850	723	
579	152	14	160	160	134	92	126	110	838	788	Metopic.
580	344	14	163	162	143	96	129	118	877	791	<i>Os pentagonale</i> .
581	133	16	166	165	133	95	120	112	801	723	Metopic.
582	378	17	167	167	150	97	127	120	898	760	
583	89	18	179	180	138	90	132	115	771	737	
584	116	18	161	162	135	88	120	106	839	745	
585	118	18	176	175	139	98	130	117	790	739	
586	511	18	173	173	140	83	129	112	809	746	
587	512	18	172	171	141	96	123	—	820	715	
588	534	18	179	181	141	91	127	—	788	709	
589	536	18	161	164	150	91	124	115	932	770	
590	115A	19	177	177	138	—	134	120	780	757

FIG. 1.—FEMALE SKULL: NORMA LATERALIS.

FIG. 4.—MALE SKULL: NORMA LATERALIS.

FIG. 2.—♀ NORMA OCCIPITALIS.

FIG. 3.—♀ NORMA VERTICALIS.
REPORT ON THE HYTHE CRANIA.

FIG. 5.—♂ NORMA OCCIPITALIS.