AN EXPLANATION OF THE HYTHE BONES.*

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PERHAPS no purely anthropological subject has given rise to more popular interest than has the origin of the bones beneath the church in this town of Hythe; and the reasons are not far to seek, for, in the first place, human remains always have a certain morbid fascination quite apart from their true scientific interest, and, in the second place, there is the situation of this particular collection in the very midst of the southern watering-places. Hythe lies on the Kentish coast, where almost every Londoner has spent at least one summer's holiday, and, even if he has not himself made an excursion to Hythe to see the bones, he must have met many people who have done so. He has heard the bones discussed, and no doubt has either accepted some dogmatic statement explaining their origin, or has wondered what could be the meaning of this great and, as far as he knew, singular collection.

I want to begin my story by saying most confidently that there is nothing very strange in this collection being here, for I can point to three collections of bones in Kent alone which are like those at Hythe. Firstly, in the little town of Upchurch, not far from Chatham, there is a small collection of bones under the church. I have seen and measured these bones, and have no reason to believe them other than typically English. No history is attached to them beyond a vague tradition of some battle. Secondly, under the parish church at Folkestone a large number of bones is said to be walled up. These, too, are said to be the result of a battle, though it is one which, as far as I can learn, is unknown to historians.

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The third collection was unearthed a few years ago in the market-place of Dover. Here, in making the foundations of a new bank, the crypt of the ancient church of St. Peter was opened up, and, through the kindness of Canon Bartram, I was able to see the enormous mass of bones which had been stacked in that crypt removed, and was allowed to examine and to measure a certain number of them.

These, too, I feel sure, were the bones of English people, differing little, if at all, from the people in Dover market-place to-day. There is also no doubt that they must have been placed in the crypt in pre-Reformation days, because the church has not been used since; but, although they shewed the same injuries to the skulls which you may see here in the Hythe skulls, no great battle is recorded to account for them as far as I have ever heard. This I fancy is due to the fact that they were buried so soon after they had been discovered that there was hardly time to invent a suitable battle for them.

It will be seen from the foregoing that in at least three other places in this county alone bones are to be found under churches, and I have little doubt that if we could open up the foundations of many other old churches in Kent we should find collections as great as this, though, I fear, not in as good a state of preservation.

In other parts of England the practice of placing the bones of the dead beneath churches was, no doubt, quite usual in bygone days. Under the cathedral at Ripon is a huge collection which was walled up in the middle of the last century by a former dean to whom archæological research was of little interest, while at Rothwell, near Kettering in Northamptonshire, there is a collection more than twice as large as that at Hythe, which I am glad to say I have had some influence in inducing the vicar and churchwardens to restack and preserve in the same way in which our own far-seeing vicar here has cared for and preserved these. Few people know or have heard of the Rothwell bones, because they are not near any place where people spend their holidays; but, because they are more typically English, they are more valuable even than these at Hythe.

I remember once hearing the origin of the Hythe bones discussed by two gentlemen in a railway carriage: one, a clergyman, said that he thought that their meaning now would never be known. The other said that he had not the slightest doubt that they were the result of a great battle, and he ran through the arguments in favour of this view in what seemed to me a masterly way. I did not join in the discussion because I have all an Englishman's dread of joining unasked in other people's conversations, but I was deeply impressed by the fact that two educated gentlemen should be content to believe that these bones were the outcome of a great battle all records of which had been lost, or, failing that, that no explanation at all could be given.

I do not think that we need go outside our own country in our search for an explanation, but I would merely point out that great collections of bones in consecrated buildings are quite common on the continent.

Are we to believe that all these collections of bones in different parts of England are the results of battles? If so it surely should be easy to say something of when the battles happened, because the building of all the churches is well within historic times, and we know all the great battles in which thousands of people were killed since the time of the Conquest at least.

Let us follow this question of the Hythe battle a little more closely, and ask when it happened. It seems that the only evidence is that Hasted, the Kentish historian, says that a great battle was fought between the Britons and Saxons in A.D. 456, and that a statement was once shewn in the church saying that the Britons were led by Vortigern.

There is some reason for believing that this latter statement was the result of the researches of a local schoolmaster, but the latest historical work does not shew that Vortigern ever fought the Saxons at all; he befriended them and married one of them, but the fighting was done by his son Vortimer, and there is no evidence that Vortimer ever fought the Saxons near Hythe.

Then, too, the many injuries to the skulls are brought

forward as the result of spear, battle-axe and arrow wounds, and of course this deserves the most thorough attention. I have brought with me to-night parts of two skulls on which blows of equal force were dealt with the same hatchet and at the same time; the only difference being that the one skull had been dead for over 100 years, the other for only twenty-four hours. If anyone cares to compare the different effect of the blows he will see that in a fresh skull the bone chips on the surface and fractures inside, while in the porous skull of a person long dead, from which most of the animal matter has been absorbed, the weapon sinks into the bone, depressing the surrounding edges, and never causes a fracture of the brain surface even if it cuts right through the depth of the bone.

From a careful study of the Hythe skulls I can say confidently that by far the greater number of the injuries were made long after death, and I have unwittingly produced injuries exactly like these with the edge of a spade in digging up Saxon bones. I put it to you that all the evidence is in favour of these skulls having been damaged by the spade and mattock of the sexton in digging fresh graves over old burials, and it is only the fact that this explanation is commonplace and likely that stands in the way of its acceptance.

Then, of course, if the bones are the result of a great battle they should belong entirely or chiefly to men. This, I can assure you, is not the case. It is quite true that there are more male than female skulls, but this is the case in most collections, and is due, I believe, to the fact that women's skulls are slighter and break up more easily than do those of men when they are roughly stacked in a heap.

It is rather difficult for even an expert anatomist to be sure of the sex of every skull he finds, but with the thigh bones the difficulty is very slight, and I could pick out large numbers of these belonging to women, besides a large proportion of children.

There is another point which we must examine without prejudice. It has been said by the advocates of the battle

theory that two distinct races are represented in this collection. At first neither Dr. Randall Davis nor I was prepared to admit this, but now I am quite sure that two kinds of skulls are to be found here. There are the characteristic long skulls such as we meet in Rothwell, in the large series taken from London plague pits, as well as in most people of undoubted English blood at the present day; but there are also skulls so short that they are unlike anything found elsewhere in England.

These short heads are so numerous that they bring the cephalic index of the Hythe skulls above anything we meet elsewhere in the British Isles. I ought to explain that the cephalic index is found by dividing the breadth of the skull, multiplied by 100, by its length, so that the longer and narrower the skull the lower will be the cephalic index. This index in over 500 of the whole Hythe series is 81, whereas modern English people hardly ever average more than 78. The London plague skulls are 76, the Rothwell skulls 77, the Dover skulls 78, and the heads of members of the British Association 77.

It is this mixture of a short-headed with a long-headed race which is the real point of interest in the Hythe bones, and it is this which prevents us using this collection as typical of bygone Englishmen. But, although I gladly allow that the advocates of the battle theory were right in saying that two races are found side by side here in Hythe, I cannot agree that this alone is any proof of a battle. If, as they say and as Hasted asserts, the battle was between the Saxons and Britons in A.D. 456, they have not advanced their argument a bit, because both Britons and Saxons had long heads, and I speak as one who has probably handled and measured as many Saxon skulls as anyone now living in England, when I say that I have seen in this Hythe collection nothing to make me believe that a single Saxon skull is present in this collection.

The only ancient short-headed people in these Islands were those of the Bronze Age, who, we believe, built Stonehenge, and of these I have lately been examining a

series dug up at Broadstairs, and I have compared them most carefully with all the Bronze Age skulls in the Museum of the Royal College of Surgeons. I now feel sure that these short skulls at Hythe were not those of Bronze Age people, and that the battle, granting for the sake of argument that there was a battle, was not one between Bronze Age people and another race.

Anthropologists know that in the centre of Europe is a large triangular area in which the inhabitants have short broad heads. Sometimes these people are spoken of as the Alpine race, and if anyone cares to see typical living examples of this race let him go to Gatti's restaurant in the Strand and look at the waiters there; these almost all come from the Italian side of Switzerland, and heads like theirs are the usual ones in Southern Germany and in the greater part of France, though not so much in Normandy.

Here I must mention that a fight between a French landing party and the Hythe men is said to have taken place in 1295, when 240 of the enemy were killed, but I do not think that the short skulls in the church can be accounted for in this way, because short-headed women are as plentiful there as short-headed men.

My present opinion is that the short-headed people in Hythe Church are continental people who settled here in a peaceful way with their women-folk, though I confess that this is mere surmise, and depends largely on the fact that short-headed women are most certainly present. I can find no definite account of their coming; it may have been in the days of the wool staple in the reigns of Edward I. and III., when so many foreigners were welcomed into England, or it may have been later, though it seems pretty certain that the infusion of the short-headed stock occurred more than 400 years ago, because three short skulls were dug up a few years ago from the site of St. Nicholas Church, which was in ruins in Leland's time (1545), and the latest burials must have taken place much earlier.

Two other ways occur to me of accounting for these short skulls; the one I have already referred to is that they

may be descendants of the old Bronze Age inhabitants of the islands. I cannot think that this is a working hypothesis, because I have lately had the opportunity of examining these people at Broadstairs and in the Museum of the Royal College of Surgeons, where they have been gathered from round barrows in various parts of England. I have not yet published the results of these investigations, and I cannot forestall such publication by any detailed results; but I cannot help being struck by the difference between these low, small, short skulls at Hythe and the high, large, short skulls of the Bronze Age people. It is quite evident though that I or someone else must get to work at Hythe again and separate the short skulls from the long, typically English ones, and then see where in Europe the nearest approach to these short heads exists. I can, however, say with absolute confidence that these short-headed Hythe skulls are not those of original Bronze Age people, because their preservation assures me that they lived many centuries later.

The second possibility which suggests itself is that these short skulls shew a large mixture of Wendish or Vandal blood with the original Saxon or Jutish element. We know from history that the short-headed Wends, a Slavonic tribe closely allied to the modern Poles, were associated with the Goths or Jutes, and that large bodies of these people accompanied their Teutonic allies to England in the Saxon incursion. They are believed to have left their name in many places, such as Wandsworth, Wendleshore or Windsor, Wendlesberi in Hertfordshire, Wendlescliff in Worcestershire, etc., and it is conceivable that these people formed an important settlement here at Hythe, and that their head-form persisted until mediæval times. I say that it is conceivable, but I do not think it likely, because I can trace none of their place names in the surrounding district, and it is, I think, unlikely that their head form would have remained strictly localized for so many generations in a populous Cinque Port like Hythe.

I do not think much of either of these two latter hypotheses to account for the short skulls of the mediæval Hythe people,

but I am bound to give them for what they are worth. I have lately heard rumours of the possibility of unearthing a Saxon burial-place at Stouting, and the investigation of this may give us fresh clues.

Now I must turn to the important question of when these bones were placed in the church of St. Leonard. It is quite clear that, as the church was only built in the Norman period, the bones could not have been there before that time. In the thirteenth century the choir was enlarged, the high altar built, and a processional way provided under it to allow the Sunday procession to pass round the church without leaving consecrated ground. Now notice how these bones are stacked on the western side of the processional way, not all round the walls as at Rothwell or Dover, where they were in true crypts never used for processional purposes. Is it not fair to think that this was intentionally done, and that the object was to leave a passage as near the east end as possible for the procession to pass? If there is anything in this contention it points to the fact that the bones were stacked in pre-Reformation days, for after that time the processional way was no longer needed for processions, and the bones might just as well have been arranged all round as at Rothwell, for the north door was permanently closed and partly earthed up.

Against this theory is the record that Leland visited Hythe in Henry VIII.'s reign and described "a faire vault," but makes no mention of the bones. It is, however, quite possible that bones were such usual furniture of a vault in Leland's time that they would have called for no special comment; and another suspicion which I cannot help holding is that Leland never really visited Hythe or Lympne, but wrote his inaccurate descriptions from hearsay at some neighbouring religious centre such as Canterbury or Saltwood.

In any case the bones were there in 1679, when the Rev. J. Browne, Vicar of Cheriton and Chaplain of the Cinque Ports, first knew them, and he says, "how or by what means they were brought to this place the townsmen are

altogether ignorant and can find no account of the matter." Surely a hundred years is no unreasonable time to expect the tradition of the sudden incoming of a huge mass of bones into the parish church to remain if it had occurred in that time, and we may, I think, fairly believe that they were there in 1575, which is only thirty years from the time when Leland wrote.

We must remember that in pre-Reformation days churchyards were small, and it was a common custom in burying a body to disturb the bones of some forgotten occupant of the same spot. These bones, I believe, at Hythe, with earth in their eye, nose and ear cavities, and the marks of the sexton's spade upon them, were placed reverently under the church. After the Reformation came a time when people began to have that horror which Shakespeare expresses on his tomb, that their bones might be disturbed, and, because of this, churchyards were enlarged and at last cemeteries provided.

What is more rational than to suppose that these bones were gradually dug up from the churchyard during two or three centuries before the Reformation? This supposition would mean that the small churchyard was gradually dug over again and again, perhaps once in each succeeding century after the foundation of the church, thus allowing some hundred years to have passed for their descendants to have forgotten the place of their burial. It was this line of reasoning which induced the vicar and me to hazard the opinion that the bones were those of townspeople who had lived and died during the twelfth, thirteenth, fourteenth, and fifteenth centuries.

Now follows a striking confirmation of this surmise. It was noticed that many of the bones at the bottom of the pile were in a very rotten condition, and were gradually mouldering away from the effects of damp, so that the vicar, on my advice, had the whole pile restacked upon bricks, giving a free air-course below them. During the restacking many interesting articles were found, such as mediæval pottery, wooden trenchers, and the remains of an Edwardian

shoe, which were submitted to experts in the British Museum and at once identified as belonging to the fourteenth and fifteenth centuries.

During the restacking the heads of the thigh bones were counted, and, as 8000 of these were found, it follows that the remains of at least 4000 people must have been in the pile. This number of people could not have died at any one time in Hythe, even if a severe epidemic such as plague had come over the town. I am far from saying that many of these people did not die of plague, for I believe that this was one of the commonest causes of death in mediæval England; but my point is that they did not all die in one visitation. Since the days of Elizabeth the parish registers have been preserved, and we have many records of plague visitations; but although the mortality was greatly increased in a plague year, it was equally diminished in the succeeding two or three years, so that an average of the deaths of five years during which a plague visitation occurred differs little from that of five years during which there was no plague.

In Elizabeth's time the burials seem to have averaged about forty a year, and if this rate held good for the preceding centuries it would mean that the 4000 skeletons represented the burials of at least a century.

Judging by the bones the mediæval inhabitants of Hythe were not a particularly fine type of manhood. The males averaged about 5 feet 4 inches or 5 feet 5 inches in height, and, though some of them were sturdy fellows, they certainly did not come up to the average of present inhabitants of the south of England, or to the present townsmen of Hythe. I do not even think that they were as fine men as the mediæval inhabitants of Dover, who were buried under the church of St. Peter. The women do not seem to have been more than 5 feet 1 inch in height.

If we exclude the inhabitants of the great industrial centres of the Midlands, I do not think that we have any real reason to think that the Englishman of to-day is a deteriorating animal; indeed, since the time of the Bronze

Age men, I doubt whether the country has ever been inhabited by a finer set of men than it is at present.

Some day I hope and believe that statesmen will think this a point which is worth enquiring into, and that it will not be left to isolated amateur enthusiasts like myself to spend our spare time and money on finding out whether our race is really progressing or deteriorating. There should be a State Anthropological Department with funds enough to keep it in touch with the progress of the British race, and I doubt whether it is a subject of congratulation that no one definitely knows what is the average height of the modern Englishman or how he is responding to modern hygienic surroundings.

In conclusion, I would impress upon you once more my firm belief, supported by the foregoing facts, that these Hythe bones belonged to people of this town who lived and died in the thirteenth, fourteenth, and fifteenth centuries, who were buried in the churchyard and exhumed in the ordinary mediæval way, but that they cannot, as a whole, be considered as typical representatives of the Englishman of the middle ages, because they contain a large admixture of another and a short-headed race, probably derived from the continent, and from that part inhabited by the so-called Alpine race.

As a last word I would say that I have found no facts which to my mind justify the apparently modern theory of a great battle having anything to do with them.