

Unfortunately, neither descriptions nor drawings are very accurate, and the inadequacy of the latter misled Boutell, to whom they were submitted. The omission of the bendlet differencing the Mortimer crest was particularly unfortunate. Further notes appeared in *Arch. Camb.*, 1880, p. 131.

## THE CHAPEL TRADITIONALLY ATTRIBUTED TO ST. PATRICK, WHITESAND BAY, PEMBROKESHIRE.

By A. B. BADGER, M.A., B.Sc., AND FRANCIS GREEN.

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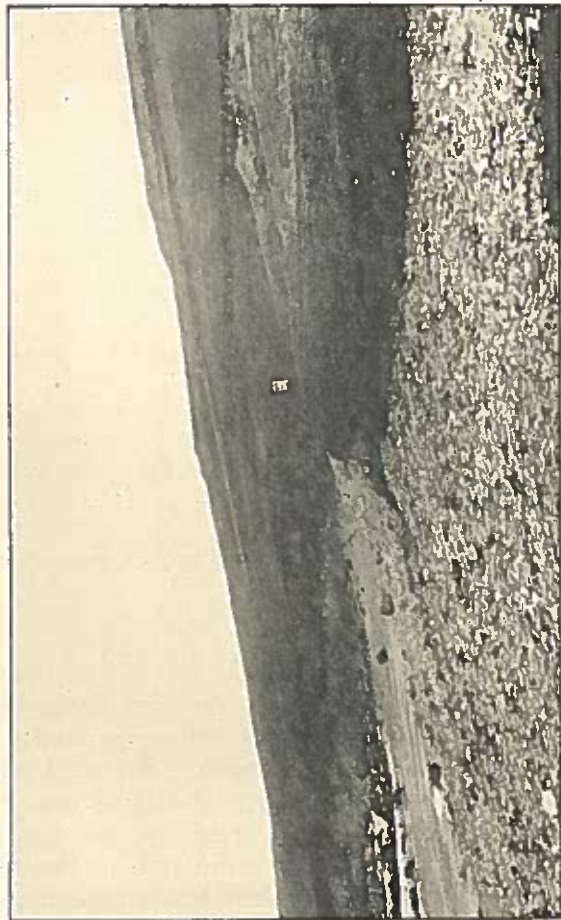
### ADDENDA—

- (a) Alleged former existence of a Building on shore of Whitesand Bay.
- (b) Chalk Decorations before Doorways.

### 1. INTRODUCTORY.

On the 6-inch Ordnance map for Pembrokeshire, Sheet xiv, S.W., it will be seen that lying just north of the main road from St. Davids (which is about  $1\frac{1}{2}$  miles away to the south-east) where it debouches near the northern curve of Whitesand Bay, there is a field marked "Parc y Capel." This field is terminated on the west by a low cliff some 10 feet high which abuts immediately on the beach, and cliff and field are formed from part of the northern edge of the tract of Blown Sand which covers the Boulder Clay lying on the Upper Cambrian rocks of the northern half of the Bay. A small mound in the middle of the field, having a depression somewhat rectangular in shape, running roughly east and west, and

shallowest at the east, is marked on the map "St. Patrick's Chapel (site of)." (See Plate No. 1.) Until the site was excavated last summer, there were no



(From a photo by John Hendrie, St. Davids.)  
Plate 1.—View of Chapel showing proximity to the sea.

other indications of the existence of any building than the form of the surface, although Jones and Freeman in their "History of the Antiquities of St. Davids" (published 1856) state (p. 228), "the foundations of a small building called by tradition a chapel, are still

visible in the middle of the field," and give measurements which closely approximate to those determined eventually by the authors. Although local tradition was strong as to the existence of the chapel, it appears that no inhabitant of St. Davids and the neighbourhood now living has ever seen actual walls there. Among others, inquiries were made of the undernamed, whose evidence it will be well to place on record.

Mrs. Mary Morgan of Caerfarchell in the parish of St. Davids (aunt of Mr. Evan Rhys Evans, St. Davids, the owner of Parc y Capel), who visited the excavation, stated that she was born at Ty Gwyn (a farm in the near vicinity) in 1841, thus being 83 years of age in 1924. She could not recollect Parc y Capel ever being ploughed and until her visit she had never seen the foundations of the building which was subsequently brought to light. She gave some other details as to a building on the actual beach, which are recorded in the Addenda following this article.

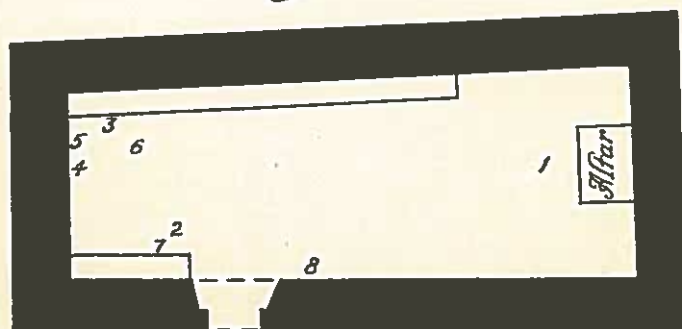
Mrs. Phœbe Llewelin of St. Davids, aged 87 years in August, 1924, stated that when she was 22 years of age, she went to live in one of the two cottages called Plyg-y-towyn (now converted into a bungalow), situated on the Burrows overlooking Whitesand Bay, and lived there some seven years. She well knew the field called Parc y Capel. The field was then much larger, a considerable part of it having since been washed away by the sea. She had never seen the field ploughed, nor had she ever seen any traces of foundations.

To settle the question once for all, the authors decided to excavate the site, and applied for the requisite permission to Mr. E. R. Evans, who cordially acceded to their request. To him, to his brother, Mr. Henry Evans, and to the Very Reverend the Dean of St. Davids, who all gave them much generous assistance both financial and in other ways, the authors desire to pay the warmest tribute of thanks and appreciation; as also to W. D. Caröe, Esq., F.S.A., the eminent architect, to Professor H. J. Fleure, D.Sc., and to Dr. G. Parry, St. Davids, for



their several valuable Reports, given below; to Dr. Sir Lynn Thomas, for his kindness in interesting Professor Fleure in the subject and motoring him to and from the neighbourhood on the occasion of his visits; to A. R. Rahbula, Esq., H.M. Office of Works, for the accurate

## CHAPEL of ST PATRICK *Whitesands Bay, St Davids.*



NOTE.—The light lines along the north and south walls indicate the ledges (see p. 92) The figures mark the positions of the burials recorded in the text.

Plate 2.

plan of the chapel appended to this article, and to Mr. John Mendus, St. Davids, for his care and skill in making the photographs with which it is illustrated. Special thanks are due to His Eminence Cardinal Gasquet and to Monsignore Ugolini, Prefect of the Vatican Archives, for their kindness in instituting researches at the Vatican for references to St. Patrick's Chapel, unhappily fruitless, and for allowing works in the Library to be consulted.

### 2. THE BUILDING.

Operations were commenced on 21st August, 1924, and continued at intervals for several weeks. The first

excavation was made at the north-east corner of the rectangular depression mentioned above and showed that there was masonry lying just below the turf at that point. Soon it was discovered that here was the angle of a building, the two including walls of which ran east-west and north-south. These were followed, and the enveloping Blown Sand (in which were embedded numerous stones fallen from the walls) having been removed from along the whole of its periphery, eventually the four walls were laid bare of a rectangular building, the long axis of which lay a little north of east and south of west. Subsequently the interior was excavated: here the infilling material was found to be composed very largely of blown sand also, in which were numerous stones from the walls. This was notably the case in the western half of the building, the sand lying 8 in. to 10 in. above the west wall. In the eastern half, there were roofing slates below and sand and stones above, the slates being aggregated particularly at the east end. The walls go down into sand which has the characters of that surrounding and filling the building.

Among these materials a striking feature was the occurrence of white quartz pebbles, such as are found in numbers on the beach close by. They were especially aggregated at the east end of the building on the top of the rubbish in the south-east angle and over that which covered the altar. Elsewhere they occurred sporadically, but at all heights, in the infilling sand. Limpet shells, also, were discovered here and there.

#### (a) *The Walls, Doorway, Floor-level and Roof.*

The dimensions of the walls are as follow (see Ground Plan):—

		Outside.	Inside.
North wall	..	34 ft. 8 in.	29 ft. 8 in.
South wall	..	33 ft. 5 in.	29 ft. 8 in.
East wall	..	16 ft. 4 in.	10 ft. 10 in.
West wall ..	..	15 ft. 5 in.	10 ft. 6 in.

It will be seen that the building tapers a little from east to west. The thickness of the walls varies somewhat from point to point, owing to the irregularity of the masonry, but on the average is about 2 ft. 7 in. The existing height of the walls varies from 2 ft. 11 in. at the east end to 3 ft. 10 in. at the west end, measured from the base.

The walls for the most part are built of rough, untrimmed boulders, such as would have been obtained from the beach on to which they have been washed from the Boulder Clay; many of them have flat upper and lower surfaces due to glacial attrition. Interspersed with them are slabs from the local flaggy sandstones.

No trace of mortar has been found in the walls, the interstices between the component stones being filled with a kind of sandy clay. The interior faces of the walls at the east end, and particularly in the south-east angle, are plastered with mortar in places: this, of course, may be an embellishment made at a date later than that of the erection of the chapel.

Extending along the inside of the north wall from its junction with the west wall to a point 9 ft. from the east wall, is a low ledge about 15 in. wide, by 12 in. high from the floor level, and a similar structure exists along the south wall for 10 ft. from the west wall. As will be seen from his Report given below, Mr. Carøe suggests that these structures are the footings of the walls, but so far as has been ascertained the stones composing the ledges do not pass under the walls. On the other hand, the lower surface of the stones of the south ledge correspond with the bottom of both the south and west walls.

When the interior was being cleared, a pile of stones 3 ft. wide, was discovered running across the building from the east side of the doorway described below, with a space of about 2 ft. 6 in. between the ends of the pile and the north and south walls. The appearance of the mass at first suggested that it represented an arch which had collapsed, but the more likely explanation is

that the stones have come from the walls and were piled together possibly in order to clear a space in which sheep could shelter.



(From a photo by John Mendus, St. Davids.)

Plate 3.—Doorway of Chapel.

In the south wall, 10 ft. 4 in. from the south-east angle, there is a doorway, which is 2 ft. 6 in. wide externally, and 3 ft. 6 in. internally. (See Plate No. 3.) The



jambes are in good preservation, and are formed of stones which seem to have been roughly faced. A stone near the foot of the east jamb projects slightly and suggests itself as being part of the sill.

The projection just mentioned may indicate the original floor level, the position of which is somewhat uncertain. A flagstone found against the north wall near the east end of the building, and another nearly opposite to it near the south wall, suggested at first sight that the floor had been made of flags, but no further trace of such paving was discovered. On the other hand, in the part of the building west of the doorway there is a blackish clayey layer 2 in. to 4 in. thick, of what looks like decomposed vegetable matter. This extends right across the interior and lies a few inches below the level of the upper surface of the ledge on the south wall. Underneath it, is sand and clay. It has been suggested that the black layer represents peat which had been laid down and beaten to form a floor surface. On the other hand it may represent the layer of surface vegetation on which the building was originally erected or that which doubtless sprang up after the abandonment of the building.

Mention has been made of the numerous pieces of slate which made up part of the infilling débris. While most are broken, many show a rough rectangular shaping and are perforated at one end, so that there can be no doubt that they were used for roofing the building, and since there are no traces of iron nails in the perforations, they would be held in position by wooden pegs. The more perfect specimens are 14 in. by 7 in. or 8 in. While in their general characteristics very similar to the slate found locally, many are considerably thicker than the slates used at the present day.

(b) *The Altar, Piscina and Angle-shelf.*

That the building described above was dedicated to the purposes of the Christian religion is shown by the existence of a structure at the east end which can be none other than an altar. (See Plate No. 4.) This is a

block of masonry measuring 3 ft. 0 in. long by 2 ft. 11 in. wide and 2 ft. 1 in. high, as measured from the lower surface of the lowest stone in the front face. The north and



(From a photo by John Mendus, St. Davids.)  
Plate 4.—View of East of Chapel showing the Altar.

south faces are carried down some 10 in. below the surface just referred to. The altar is built close up against the east wall, but does not lie exactly symmetrically to it, being 2 ft. 11 in. from the inner face of the north wall and 4 ft. 1 in. from that of the south wall. The stones



composing it are irregular in shape and size and are partly flaggy sandstones in the upper part, and partly boulders of igneous rock which appear to have been roughly faced, and form the base of the structure. In places mortar was found adhering to the faces. The upper surface of the altar is irregular and without the altar-slab, no trace of which was found. As regards the shape, almost square, it is recorded in the Report of the Scottish Archæological Tour of the Cambrian Archæological Society, 1899 (p. 63), that St. Patrick's Chapel at Kilmolug-kennavarra, in Tiree, has a square altar, and (p. 96) that in the later chapel at Teampull na Manach, North Rona, the altar is 5 ft. square by 3 ft. high, and the altar-stone of the older Teampull Rona is 3 ft. in length.

The only other structures found in what may now be designated the chapel, and belonging to it, were:—

- (i) A stone angle-shelf with worked surface and edges. It has four sides: two at right angles which fitted in the angle, of 14 in. in length; two at right angles to these of 8 in.; and one, making an angle of about 45 degrees with the latter of 11 in. (shewn in Plate 4 above the lower extremities of the skeleton).
- (ii) What is probably the lower part of a piscina slit. The upper and lower surfaces are broken. It measures  $16\frac{1}{2}$  in. overall and is 5 in. broad. The greatest height of the more perfect end measures  $4\frac{1}{2}$  in. from the upper to lower surface; here the end of the stone rises above the upper surface for  $1\frac{1}{2}$  in., forming a side of about the same width, the inner surface of which has been worked.

There were no traces of any sculptured or inscribed stones.

(c) *Report by W. D. Carøe, Esq., F.S.A.*

The chapel has been examined by Mr. Carøe, and the following Report has been kindly supplied by him:—

St. Patrick's Chapel is an early rectangular chapel of the single cell Heysham type. That chapel—possibly an Irish mission chapel—has also the same dedication. The comparative dimensions are:—

HEYSHAM—

Outside	..	31 ft. 3 in. by 12 ft. 6 in.	..	West end.
		13 ft.	..	East end.
Inside	..	26 ft. 6 in. by 8 ft.	..	West end.
		8 ft. 6 in.	..	East end.

ST. PATRICK'S—

Outside	..	34 ft. 8 in. by 15 ft. 5 in.	..	West end.
		16 ft. 4 in.	..	East end.
Inside	..	29 ft. 8 in. by 10 ft. 9 in.	..	

In both cases the door is on the south side and very similarly placed: that at Heysham, 7 ft. 9 in. from the west wall; at St. Patrick's 7 ft. 4 in.<sup>1</sup> There are no antæ at Heysham, but at St. Patrick's, just possible signs, not very defined, at the east end only. The chapel is orientated a little to the north of east. The altar is *in situ*, solid stone, 3 ft. 10 in. by 2 ft. 10 in., but one foot nearer the north wall than the south. The walls are built upon a footing projecting about 9 inches to 10 inches. This has been taken for a seat, but is clearly a footing. It was not all excavated when examined, but is probably at the same level all through. The walls are built of rough stones of various sizes, some of them water-worn, and in that case filled up with small rubble more or less laminated. This is noticeably the case in the altar. No mortar is used. The walls vary a good deal but are generally about 2 ft. 7 in. thick. The whole of the interior has been plastered, including the altar, the plaster being carried over the large stones. The height of the remains of the walling varies in different positions, the average is about 3 ft. above the footing. A large number of quartz pebbles—cobbles—about half the size of a cricket ball, have been found, some of them apparently lying on the altar. I should imagine that these were the remains of a cobble pavement, but how they could have got upon the altar is difficult to explain. I found two worked stones: one of these is consistent with its having possibly been the piece of a piscina slit, such as may be found at Saints Ireland, Loch Rae, Ireland.

<sup>1</sup> Ten feet four inches from the south-west angle, exterior measurement.—AUTHORS.



The other is an angle stone shelf. If, as may reasonably be surmised, these stones are part of the original structure, they would point to a somewhat late period for the chapel, which, however, is undoubtedly British.

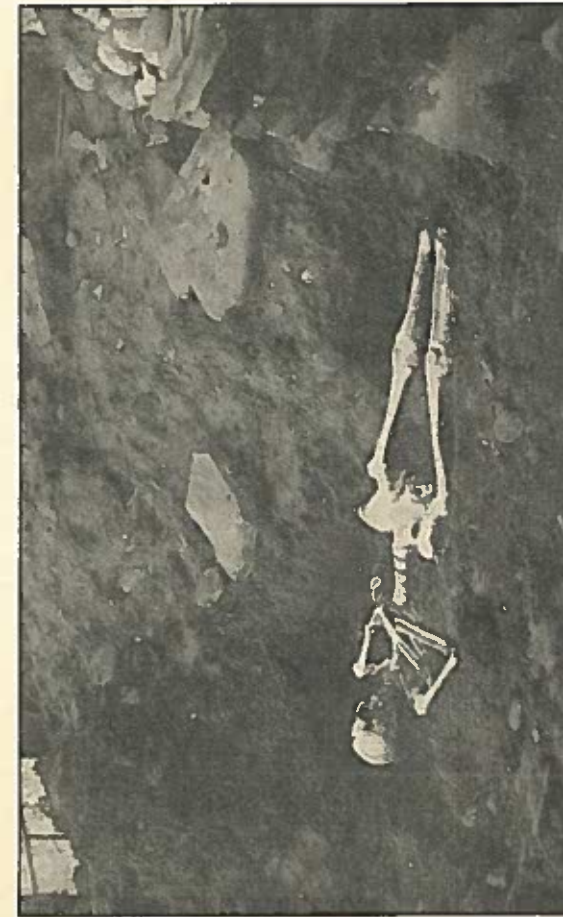
### 3. HUMAN REMAINS.

Whilst investigations were being made at the east end of the chapel as to the floor-level and as to the depth to which the altar went down below the debris, a human skeleton was discovered lying in front of the altar, and in subsequent operations other human bones were brought to light. In no case was there any trace of coffins or cists, nor were any articles of human manufacture discovered with the remains. The respective positions occupied by the several sets of human remains are indicated on the plan of the chapel by the numbers given in ensuing list of particulars.

#### (a) Details.

No. 1.—A skeleton of a youthful male, lying east and west in front of the altar, 4 ft. 6 in. from the south wall, *i.e.*, 1 ft. 6 in. to the south of the middle line of the altar, and some 8 in. below the bottom of the west face. (See Plate No. 5.) Some of the feet bones were beneath the altar and a few inches from the front. The length of the skeleton, making allowance for the feet, was 5 ft. 4 in. The shoulders were sunk somewhat below the level of the rest of the skeleton while the neck was slightly twisted, but whether the body had been buried in this attitude or whether the posture was occasioned by a subsidence in the soil it is impossible to decide. The right hand was lying across the chest under the left elbow, the fore-arm being flexed at a right angle; the left fore-arm was flexed at about 45 degrees, with the left hand in the right axilla. The skeleton lay in sand; the knees were supported by a stone; and white quartz pebbles and limpet shells were closely associated with the bones. After being photographed in position, the

remains were re-interred in a rough cist of slabs from the neighbouring cliff, and a service was performed by the Very Rev. the Dean of St. Davids.



(From a photo by John Mendus, St. Davids.)  
Plate 5.—Skeleton in situ in front of Altar.

The position of the skeleton in front of and to the south of the middle line of the altar suggests that the youth who was buried there was some one of importance, but one speculates in vain as to the identity of him so cut off in the flower of his age: perhaps he was a Celtic

Marcellus. The archæologist who unwillingly disturbed his remains can at least exclaim with Anchises—

Heu, miserande puer ! . . .  
 . . . Manibus date lilia plenis ;  
 Purpureos spargam flores !

No. 2.—A skull well-preserved ; it lay about 2 ft. from the south wall, a little west of the doorway, and 15 in. below the upper surface of the ledge or so-called footing of the west wall, and rested on a small flag set vertically. Part of the left ramus of a mandible was lying on it, and near-by were an astragalus, a metatarsal, portion of a radius and phalanges.

No. 3.—A complete skull with the bones not ankylosed ; in the north-west angle a few inches below the dark layer.

No. 4.—Fragments of a skull ; they lay well underneath the west wall at a point 20 in. below the bottom, about 1 yard from the north wall and some 20 in. from the easterly face of the west wall, *i.e.*, only a few inches from the westerly face of the wall. It seems quite certain, therefore, that the remains were there before the west wall was built. White pebbles were found near-by, beneath the wall, and also a snail shell.

No. 5.—A complete skeleton of a male ; it lay a little to the south of No. 3, with the skull close up against the west wall, in relation to which the skeleton was placed diagonally, *i.e.*, somewhat N.W.—S.E. In the mouth were two snail shells. The hands were folded on the pelvis, at the base of which lay a white pebble. The skeleton was completely surrounded by sand, and lay 18 in. below the black layer mentioned above as extending over the western part of the chapel, a depth which corresponds to about 1 ft. below the level of the bottom of the west wall. This feature again points to burial before the erection of the chapel.

No. 6.—A pelvis and femurs ; about 1 ft. below No. 5. This interment has not been investigated further.

No. 7.—Bones of quite young children ; close to the south wall, just to the west of the doorway, and among the débris above the level of the south ledge.

No. 8.—Skull-bones of a young child or children ; close to the south wall and east of the doorway and above floor-level.

(b) *Reports of Professor H. J. Fleure and of Dr. G. Parry.*

Through the courtesy of Professor Fleure, who examined three of the skulls, we are able to publish the following Report drawn up by him and embodying measurements made by Dr. G. Parry :—

The skeleton (No. 1 in the list given above) found in front of the altar could not be measured up very fully because the skull could be reconstructed only in part. I am, however, able to give a number of measurements taken by Dr. Parry when the skeleton was first uncovered.

Right humerus, from greater tuberosity to middle of external condyle .. ..	10 $\frac{1}{4}$ inches.
Right ulna .. ..	8 $\frac{1}{2}$ "
Right radius .. ..	7 $\frac{3}{8}$ "
Right femur from tip to trochanter to external condyle's articular surface .. ..	15 "
Right tibia to epiphysial line .. ..	11 $\frac{1}{4}$ "
Right clavicle .. ..	4 $\frac{1}{2}$ "

Pelvis normal : male—

Between anterior superior spines .. ..	8 "
" crests of ileum .. ..	8 $\frac{3}{8}$ "
Vertebral column from second cervical to lower border of fifth lumbar .. ..	20 $\frac{5}{8}$ "
Sacrum, greatest width .. ..	4 "
Right arm lying across chest under left elbow ; fore-arm flexed at 90°.	
Left fore-arm flexed at 45° and left hand in right axilla ; somewhat sunk.	
Vertebral column showed lateral curves to right in cervical vertebræ and curve to right in thoracic vertebræ.	



Dr. Parry was also able to take the following tape measurements on the skull :—

Intertemporal .. $4\frac{7}{8}$ inches.	Circumference .. 19 inches.
Intermastoid .. $5\frac{1}{2}$ „	Glabella to sym-
Intermalar .. $4\frac{9}{16}$ „	physis menti .. 4 „
Angle of lower jaw to sym-physis .. $3\frac{3}{8}$ „	Orbit—
	Height .. 3 centimetres.
	Length .. 3.6 „

On the reconstructed skull only a few points could be worked out, as it was incomplete, namely :—

Length, glabella-occiput .. 175 millimetres	} cephalic index on skull
Maximum parietal breadth 134 „	
	76.5; on living head 77.7, allowing 9mm. for thickness of integument.

Auriculo-Bregmatic Radius	127 millimetres.
Auriculo-Alveolar Radius .. 92 „	

The length of the Auriculo-Bregmatic Radius suggests that the skull was a high one.

The wisdom teeth were just level with the alveoli and had clearly been growing normally up to nearly the time of death. There was no sign of decay in the teeth and some were still fresh. The sutures were not ankylosed, and their general condition gave the impression that the subject was probably under 20. The state of the teeth makes it seem probable that he was 16 to 18 years of age.

The form of the skull is quite ordinary, but its dimensions are small and might indicate that the person was even younger than has been suggested.

Of the two skulls or groups of skull fragments (No. 2 and No. 5) taken from the west portion of the chapel, one set of fragments (No. 5) will be very difficult to put together, and this work must wait for greater leisure. It (No. 5) has, however, reached a stage at which I can give the following measurements :—

Maximum length—Glabella-Occiput	189	} cephalic index
Maximum parietal breadth ..	142	
Maximum frontal breadth ..	96	75.

It is a skull in which supra-ciliaries and supra-orbitals are strong (probably male). The nasion is broken off, but does not seem to have been specially deep-set. Teeth and sutures both give the impression of a person of middle age.

The other skull (No. 2) has been saved and shows the following characters :—

The supra-ciliaries are only fairly strong; the supra-orbitals are weak; the glabella is moderate. The skull may be that of a male.

Length—

Glabella-Occiput .. 190	Auricular Radii to Nasion 88
Ophryon-Occiput .. 186	Auricular Radii to Bregma 102

Breadth—

Maximum parietal .. 145	Auricular Radii to Lambda 101
Minimum frontal .. 100	Auricular Radii to Inion 87

Height—

Basi-Bregmatic .. 138
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The cephalic index would be 76.3 on the skull, or 77.4 on the living head, allowing 9 mm. for the thickness of the integuments.

#### 4. THE QUARTZ PEBBLES AND MOLLUSCAN SHELLS.

Mention has already been made of the occurrence in the interior of the chapel of numerous white quartz pebbles and of limpet and snail shells. The purpose and signification of these objects are very problematic, and require much more investigation and research than the authors have yet been able to devote to them, but the following particulars and considerations may be of interest.

##### (a) *The Quartz Pebbles.*

It may be reiterated that the pebbles were found in all parts of and at all levels in the débris filling the interior of the chapel, as also here and there in the sand below floor level, and in close association with the skeletons No. 1 and No. 5. The largest number was found lying on the top of the débris in the south-east angle up against

the east wall and on the top of the altar. They vary in size from 2 in. to 6 in. in length, most of them being, as Mr. Caröe states, about half the size of a cricket ball. Some of them are stained by oxide of iron; others have veins of a green mineral. They occur close by on the beach and appear to be derived originally from the local Pre-Cambrian Conglomerate, of which there is an outcrop at the southern end of Whitesand Bay.

Pebbles have been noted frequently in both prehistoric and early Christian interments, and among various peoples are credited with magical properties. Hoare<sup>1</sup> records "a curious stone of the sardonix kind" at the head of a skeleton in a barrow at Stonehenge; a handful of pebbles of different colours near the legs of a skeleton in a barrow at Upton Lovel, and again a red pebble amid the ashes in a barrow at Everley. Bateman has observed numerous quartz pebbles in a barrow at Middleton; a pebble in the right hand of a skeleton at Readon Hill, near Ramshover; and one in the left hand of a skeleton at Alsop. Worthington Smith mentions white quartz pebbles with the skeleton of a woman and child in a barrow on Dunstable Downs. They are also found in barrows of Bronze Age, as recorded by Bateman, at Carder Low, where 80 white quartz pebbles were found with a bronze dagger, and again a quartz pebble with bronze pin amid burnt bones at Throwby. Barrows in the Isle of Man contain white quartz pebbles as large as hen's eggs, or larger, ranged round cinerary urns. In an Anglo-Saxon interment at Kettering an urn with calcined bones contained 9 small pebbles. Fragments of quartz and selected pebbles are frequent in early Irish interments, and Cornish barrows also contain beach pebbles.

As regards Christian examples, many skeletons, each accompanied by a white pebble, were found in the churchyard at Penmynydd, Anglesey, and in the church-

<sup>1</sup> This reference and those following, where not particularly specified, are taken from Evans, J.. *Ancient Stone Implements*, 2nd ed., pp. 467 seq.

yards of Bride, Maughold, and Kilkellan at Louan in the Isle of Man, white pebbles were found at from 2 ft. to 3 ft. below the surface.

By the courtesy of E. J. Boake, Esq., St. Justinian's, St. Davids, the following particulars as to the occurrence of white pebbles at St. Justinian's Chapel, St. Davids, have been most kindly contributed by him for this article and are anticipatory of a full description of his discoveries to be given by him in the next number of the *Archæologia Cambrensis*. Mr. Boake states as follows:—

"In opening up St. Justinian's Chapel a skeleton was found about 18 in. from the surface, lying on its side: a large white pebble had been placed against the skull; another at the breast; another in the angle of each knee, and one near the feet. The remains of two infants were found buried at about the same depth near the centre of the chapel, and over the mound covering them there was a large number of white pebbles placed close together but in no particular formation. These interments had a Nor'-westerly and Sou'-westerly direction.

"Another tomb was found near the North wall, in an East and West direction; this was built up of slabs of slate and covered with detached pieces of slate; in between which were numerous white pebbles; in fact all the spaces between the slates were filled in with these pebbles. This tomb was opened up, and about 3 feet below the top surface a skeleton was found, and in the angle of the knees one white pebble was observed.

"In excavating the chapel white pebbles were found approximately through the whole of the débris, but there is no doubt that from time to time the ground had been disturbed, and that if the pebbles had at one time been placed in a definite position, they had become displaced and scattered through the soil."

Even at the present day white pebbles or broken white quartz are often seen on graves, and there are numerous examples of white pebbles placed as an ornamentation in front of the houses in St. Davids and other places. In this connection the authors would draw attention to the note following this article, on the white decorations used to embellish doorsteps.

Very many examples are known of pebbles of peculiar shape being used as amulets and as having magical



properties : St. Columba, for instance, raised a man from death's door by giving him water to drink in which a white pebble taken by the Saint from the river had been placed; the pebble "*contra naturam in aquis supernatabat quasi pomum vel nux.*"<sup>1</sup>

A practice of peculiar interest in the present connection is that of the Arunta, one of the tribes of the Australian aborigines, who believe that the soul of each member of the tribe is contained in a stick or a stone which is very carefully guarded.<sup>2</sup> As the Australians are considered "to offer an excellent illustration of the culture and manner of life of a primitive hunting people,"<sup>3</sup> this belief of theirs may give the key to the occurrence of pebbles in prehistoric interments.

Again, Backhouse<sup>4</sup> records of the Tasmanians, now extinct, who "in the middle of the nineteenth century were still living in the Palæolithic epoch,"<sup>5</sup> that oval, flat stones, marked with black and red lines, represented absent friends.

In his elaborate paper "The Circle and the Cross" (*Arch. Journ.*, 2nd series, xxvii; 1920) Allcroft maintains that the spherical pebbles found in British barrows, as also the echini and shells, are merely so many symbols of the prehistoric circular hut, and says that the practice was carried on to Christian times. With this may be compared the practice of the ancient Egyptians in placing little models of houses on tombs for the dead to dwell in, as is also done by some African tribes, and the cinerary hut-urns of the prehistoric Italians.<sup>6</sup>

As regards the colour, white has generally been regarded as signification of good fortune or purity—from the white pebbles with which the Romans marked a fortunate day or acquittal (*album calculum adjicere*), to the white balls

<sup>1</sup> Adamnan's *Life of St. Columba*, Lib. II, cap. xxiv.

<sup>2</sup> Fraser, J., *Folk-lore of the Old Testament*, II, p. 508, ff.

<sup>3</sup> Sollas : *Ancient Hunters*, 1924, p. 258.

<sup>4</sup> Sollas : *Op. cit.*, p. 116.

<sup>5</sup> Sollas : *Op. cit.*, p. 107.

<sup>6</sup> Fraser : *Op. cit.*, p. 508.

of the club ballot, and from the white robes of the Jewish High Priest and the Arch Druid to the white vestments of the Church. Both ideas occur in the Welsh word "*gwyn*"; the sense of "sacred," for instance, in such place-names as "*Cilgwyn*."

The following suppositions may be hazarded as to the presence of white pebbles in association with human remains. First of all they were placed with the skeleton or among the ashes as being the dwelling-place of the spirit of the dead which it was highly important to keep in the grave and prevent from annoying the living. Subsequently this belief may have given place to the idea that the stone represented the dwelling which the dead man had occupied when alive, and in the symbol his spirit would remain. Then, when the Christian missionaries found the practice too deep-seated to be given up, they sanctioned it, as they did so many other pagan customs and beliefs, by associating it with the declaration in Revelation ii, 17—"et dabo illi calculum candidum : et in calculo novum nomen scriptum, quod nemo scit, nisi qui accipit."

But only a few of the white pebbles found in the chapel were associated with the human remains. It has been suggested by Mr. Caröe that most of them are the remains of a cobble pavement : the number, however, is too small to have paved any but a small area. On the other hand, they may have been used to form a decoration of some kind, their aggregation against the east wall suggesting that there may have been a cross there or some other religious symbol. When the stones of the east wall fell down or were removed, the pebbles would be likely to fall to the place where they were found. A cross composed of six white quartz pebbles occurs just above the windows over the doorway in the largest cell at Skelig Michael, Bolas Head, Kerry, and a similar one over the doorway of one of the oratories on Oilen Tsenaig, Mogharee Islands, Kerry.<sup>1</sup> Or, again, the

<sup>1</sup> *Monumental History of the Church*, p. 53.



pebbles at St. Patrick's may have been votive offerings, as in the case of the "cella" at Sgor na Bean Naomh Canna.<sup>1</sup> In the case of white stones found at Penmynydd, Anglesey, mentioned above, it is stated "these had no doubt been brought here on occasion of interments as was usual in some parts of Wales during the middle ages, when each mourner brought and deposited a white stone on or near the grave of the departed."<sup>2</sup>

(b) *Molluscan Shells.*

Limpet shells were found among the bones of the skeleton No. 1 above; two small shells in the mouth of the skull of skeleton No. 5 and a snail shell close to the fragments of skull No. 4; and limpet shells were found sporadically in the sand in the interior of the chapel. An explanation of the presence of the limpet shells might be sought in the supposition of an incursion of the sea, but the chapel lies some 15 ft. above present high tide mark, which at the time the building was being filled with blown sand, must have been at a greater distance away than it is to-day, for within living memory, the cliff extended much farther seawards than it does at present.

On the other hand, the occurrence of modern molluscan shells and tests of sea-urchins, as well as of fossil shells, has been frequently recorded in prehistoric and Christian interments.

Around the palæolithic skeleton at Langerie Basse (Dordogne) of Magdalenian age, the so-called *L'homme écrasé*, large cowrie shells were disposed, which must have been obtained from the Mediterranean: four were on the head, and a pair at each elbow, each knee and each foot.<sup>3</sup> Sir John Evans<sup>4</sup> gives references to records of a pair of fossil cockle shells in a barrow at Winterbourne Stoke;

<sup>1</sup> *Scottish Arch. Tour of Camb. Arch. Soc.* (1899), p. 67.

<sup>2</sup> *Arch. Camb.*, 1859, p. 26.

<sup>3</sup> Sollas: *Ancient Hunters*, 1924, p. 588.

<sup>4</sup> *Anc. Stone Imp.*, p. 466.

of part of an ammonite with the skeleton at Rudstone; of two fossil sea-urchin tests in the barrow on Dunstable Downs, and numerous shells of *Helix nemoralis* (a species not found in the immediate neighbourhood) in the Roundway barrow. In the Anglo-Saxon interment at Kettering, the urn which contained the pebbles also included a number of shells of *Caecilioides acicula*.

As regards Christian interments, shells have been frequently recorded from the Catacombs at Rome, where oyster and *Buccinea* shells either entire or broken, are used to mark graves, and as can be seen in the catacombs of S. Agnese Without the Walls, are fastened to the outside of the loculi and were used as lamps. Metal lamps in the form of shells have also been found in the catacombs. Boldetti<sup>1</sup> states that he "sometimes observed within some sepulchres of martyrs certain shells or marine snails and fragments of them, particularly little *Buccineas*." In the article "Coquillages" in the *Dictionnaire d'Archéologie Chrétienne*, by Cabrol and Le Clercy, mention is made of shells not found in the soil unless brought there, discovered in the Christian cemetery of S. Ipolyto at Atripalda, mixed with earth and bones; of several shells in the sarcophagus of S. Eutropius at Saintes, which cannot have been introduced by hazard, and also in a Merovingian sarcophagus at Vicq and in some tombs of Carlovingian age at Dieppe.

In the Christian Museum at the Vatican there is a remarkable carved glass baptismal vase from the catacomb of S. Callistio: it has supports carved in the form of long gastropod shells, then at the base of the vase is a row of similar shells, and higher up two rows of fishes.

Shells are used as charms in East Central Africa, where large snail shells are buried at the door of a man against whom spite is entertained.<sup>2</sup> In the Hebrides "a little

<sup>1</sup> *Osservazioni sopra i cimetri cristiani*, 1720, p. 515.

<sup>2</sup> *Folk-lore*, XV, p. 69.



univalve shell, known as 'fuoitrag,' is carried in the pocket for luck, three will save one from being lost in a mist."<sup>1</sup> Fraser<sup>2</sup> states that the Toradjas of Centra Celebes use shells as traps for the souls of enemies.

In some parts of Brittany, shells of *Helix nemoralis* and of *Helix Lortensis* are used to decorate graves.

As regards the signification of shells in interments, possibly they were first used as "traps" for the soul of the dead. Allcroft<sup>3</sup> regards them as representing, like the pebbles, the circular hut dwelling, and points out that the tests of echini and limpet shells would be especially suitable as symbols. On the other hand, the article in the *Dictionnaire d'Archéologie Chrétienne*, referred to above, suggests that the shells in early Christian burials represent the tomb from which the souls of the dead will one day arise. The sea and various types of fish and molluscan shells, however, are frequently used, as is well known, as an allegory of the world and baptismal regeneration: those so regenerated are "little fishes in Christ," as Tertullian says in *De Baptisma*: "Nos pisciculi secundum IXOTN nostrum Jesum Christum in aqua nascimur neque aliter quam in aqua permanendo salvi sumus." (T. i., col. 1198).

Here, again, the Christian interpretation may have been given to an age-long pagan custom.

##### 5. POTTERY AND IRON NAILS.

In the course of the excavations the following pieces of pottery were found and were submitted to the Curator of the Department of Early British Ceramics in the British Museum, whose report is given in the fifth column on the next page.

<sup>1</sup> *Folk-lore*, XIII, p. 263.

<sup>2</sup> *Folk-lore of the Old Testament*, II, p. 508.

<sup>3</sup> *Op. cit.*, *supra*.

Specimen.	No. of Pieces.	Position.	Distance below surface of ground.	Report.
(1)	(2)	(3)	(4)	(5)
1	3	Near E. wall ...	8-in., just below surface	Buff pottery with yellow glaze, 17th century.
2	2	Middle of chapel	do.	White modern ware.
3a	1	Near E. wall ...	1 ft. ...	Buff pottery with yellow glaze, 17th century.
3b	1	do. ...	1 ft. ...	Printed modern ware.
4	1	Near W. wall ...	1 ft. ...	do.
5	1	Near doorway ...	1½ ft. ...	Tudor period.
6	1	1 yard from middle of W. wall	2 ft. ...	Scratched decoration ? 17th century.
7	2	Near W. wall ...	2 ft. ...	Buff pottery with yellow glaze, 17th century.
8	1	do. ...	2 ft. ...	do.
9	1	West jamb of doorway	3 ft. ...	No glaze, period uncertain.
10	1	S.W. angle ...	3 ft. ...	Buff pottery with yellow glaze, 17th century.
11	1	Middle N. wall ...	3 ft. 6 in. ...	do.
12	1	West end ...	3 ft. 6 in. ...	? Tudor period.
13	1	S. wall, west of doorway	10 in. below flagstone	No glaze; period uncertain.

Portions of large iron nails with heads somewhat domed were found close to the doorway, and had evidently been used to fasten the hinges of the door. The Curator of Early Iron Work at the British Museum reported that it was not possible to date them.

##### 6. MAMMALIAN REMAINS.

Numerous bones of the rabbit, and the smaller limb-bones of the sheep and ox were found among the infilling débris, at all levels and in all parts of the chapel.

THE QUESTION OF THE AUTHENTICITY OF THE  
ATtribution TO ST. PATRICK.

In regard to this question it is disappointing to find that there is no reference whatever to the chapel in any known document relating to the Cathedral of St. Davids or to the See, neither in the Cathedral account nor in *The Episcopal Registers of the Bishops of St. Davids*.

The earliest references to St. Patrick's Chapel which the authors can find is contained in *The Survey of St. Davids*, by Browne Willis, published in 1717. Since the value of these references is an important question, it seems desirable to give the following details, although no doubt they will be quite familiar to some readers, at least, of this paper:—

The references occur in a chapter of *The Survey* (commencing on p. 38) which is entitled:—

“MEMOIRS relating to the Cathedral Church of ST. DAVIDS, and the country adjacent, as it was in the latter end of Queen Elizabeth's Reign.”

These “Memoirs,” which are in the form of a letter addressed to Browne Willis, are dated “March 25, 1716,” and are signed by “M. N.,” who is supposed to be Dr. William Wotton. The writer commences by telling Browne Willis that in searching for information for him about St. Davids, he obtained a MS. from Mr. Havard, the Vicar of Abergwily, who had it from Mr. William Lewes of Llwynderew, Carmarthenshire. “M. N.” goes on to say that he thinks it was written in the latter end of Queen Elizabeth's reign, “but by whom I cannot certainly learn, but conjecture it was designed for the use of Mr. Camden, who was then putting his last hand to his *Britannia*.” He then proceeds to quote from the MS., here and there adding comments of his own which he has previously stated will be distinguished by being enclosed in what he calls “crotchets,” now known as square brackets. The comments are also printed in italics. It seems quite clear that from this point the whole of

the “Memoirs” except what is enclosed in square brackets, is from the MS. The following quotation (p. 61) will serve as an example, and is also important as dating the MS.: a description is being given of the islands off St. David's Head:—“I think they (I mean the *Bishop* and his *Clerks*) are able to prevent the King of *Spain's* Great Navy, and put her Majesty to no charge at all [*I have here copied our Author's words both to preserve his Witticism which he seems to have valued himself upon; and chiefly to shew the Time when this was written, which was about the Spanish Invasion in 1588*].”

The “Memoirs” are referred to in the following terms by Henry Owen in the Preface (p. xxvi) to his edition (1872) of the *Description of Pembrokeshire*, by George Owen of Henllys, who died in 1613:—

“So far as can be judged from the summary, there is little doubt that the manuscript was the work of George Owen of Henllys and written after the *Description of Pembrokeshire*.”

It appears reasonably certain, therefore, that the references to St. Patrick's Chapel in the “Memoirs” are records by George Owen himself; but even if this is considered doubtful, there is no evidence that they do not date, as “M. N.” suggests, from the latter part of Elizabeth's reign. There are two references:—

- (1) “Not far off (from Capel Stinan) is Capel Patrick full west of St. Davids and placed as near his country, namely Ireland, as it could well be. It is now wholly decayed” (p. 54).
- (2) In a description of Whitesand Bay, formerly known as Porth Mawr, we find: “The next noted place upon the coast is *Port-mawr* . . . This Bay is near Capel Patrick” (p. 62).

We may take it then, that as far back as the end of Elizabeth's reign, the building unearched in Parc y Capel was known as St. Patrick's Chapel, a conclusion confirmed



by the statement of Jones and Freeman<sup>1</sup> that the chapel was destroyed before the end of the 16th century, which they could not have made unless of opinion that the quotation given above from Browne Willis was from a *MS.* of Elizabethan age.

Legendary history and local place-names also connect a St. Patrick with the neighbourhood.

Rhygyfarch,<sup>2</sup> writing at the end of the 11th century, says that St. Patrick wished to evangelise south-west Wales, but was told in a vision that that work was reserved for one to come thirty years later—St. David, and that Ireland was to be his own field of work. George Owen<sup>3</sup> gives the tradition that “the Saint founded a monastery at St. Davids out of which was afterwards founded the cathedral church there.” Baring Gould and Fisher<sup>4</sup> “judge” that he founded a school at St. Davids, under “Maucan or Ninio,” for the training of missionaries for the Irish Church. This monastery or school—Ty Gwyn—is said to have been on the site of a farm only a few hundred yards away from St. Patrick’s Chapel, which is still known by the same name. Rhygyfarch<sup>5</sup> also narrates that when the saint was preparing a ship in Porth Mawr for his voyage to Ireland, he raised to life an old priest named *Criumther* who had lain buried there for twelve years; one cannot but be impressed by the coincidence of there being a chapel with interments on the very site of the alleged miracle.

Then there are the place-names. About two-thirds of a mile to the south-south-east of the chapel, near the farm of Croeswdig, a low, rocky eminence is still called “Carn Badrig”; one of the former gateways of the Cathedral Close was “Porth Badrig,” and the “Rock of Vision,” from which the Saint was shown Ireland, but now unknown, was “Eisteddfa Badrig.”

<sup>1</sup> *History and Antiquities of St. Davids*, p. 228.

<sup>2</sup> *Life of St. David*, translated by A. W. Wade-Evans, 1923, § 3, p. 2.

<sup>3</sup> *Description of Pembrokeshire*, I, p. 220.

<sup>4</sup> *Lives of the British Saints*, IV, p. 60.

<sup>5</sup> *Op. cit.*, § 3, p. 4.

It may possibly be open to doubt whether the Patrick so commemorated is the saint of the “Confession,” or one of the other four of the same name whose histories according to Baring Gould and Fisher<sup>1</sup> are fused with his. But if it is only in the lives of St. David that the great St. Patrick—“Patrick Mac Calpurn”—is mentioned as being connected with Menevia, yet there is no tradition of any other saint of the name which associates him with the district. It is a fair conclusion, therefore, that it was the evangelist of Ireland to whom the chapel was attributed.

The conclusion is strengthened by the evidence which exists that Whitesand Bay or Porth Mawr was largely used by Irish pilgrims and others on their way from and to Ireland. Wade-Evans<sup>2</sup> gives the example of Marchell, mother of Brychan, and an ancestor five generations back of St. David, embarking at Porth Mawr on her way to Ireland to marry Anlach. Dr. Hartwell Jones in his monumental work “*Celtic Britain and the Pilgrim Movement*”<sup>3</sup> states that Irish pilgrims desiring to visit shrines on the continent took ship to South Wales which was the usual route in the Middle Ages and was adopted by the successive conquerors of Ireland down to the 12th century: “St. David’s Head lay only forty-five miles distant from Ireland and offered the greatest advantage of embarkation: before a favourable breeze a boat could cross in four or five hours.” That there was much intercourse between the Irish saints and St. David is shown by statements in the lives of Aiddan of Ferns, Ailbe, Declan of Ardmore, Findbar, Findian of Clonard and Finian, who all resorted to *Cill Muni*.<sup>4</sup> Again the Irish were enthusiastic pilgrims and travelled far. We hear of Findbarr and Declan being at Rome in the time of St. David.<sup>5</sup> St. Patrick when at the religious house

<sup>1</sup> *Op. cit.*, “St. Patrick.”

<sup>2</sup> *Op. cit.*, p. 69, quoting *De Situ Brechenianc*.

<sup>3</sup> *Y Cymmrodor*, xxiii, pp. 60–1.

<sup>4</sup> Wade-Evans, *op. cit.*, pp. 34–46.

<sup>5</sup> *Op. cit.*, § 39, p. 42.



of Lerins, off the south coast of Gaul, found Irish monks there.<sup>1</sup> He himself was also at Rome at least once, as were Senan, Canice, Condlaed, Enda, Macisse, Laserian, Flannan, Wiro, Killian, and Malachy.<sup>2</sup> Later on there were many Irish pilgrims who journeyed to Santiago da Compostella, and who, no doubt, would on their way there visit the celebrated shrine of St. David: two pilgrimages to either shrine was equivalent to one to Rome. That St. Patrick's Chapel at Porth Mawr was frequented by pilgrims, is specifically stated in the "Memoirs" in Browne Willis's *Survey*. Referring to this chapel, together with the other coast chapels of St. Non and St. Justinian, and one at Porth Clais known to us only as "Capel y Pistill," the author, presumably George Owen, states as follows<sup>3</sup> :—

"All these chapels are near the sea-side, and adjoining to the Places where those that came by sea commonly landed. They were placed here to draw the Devotion of the Sea-men and Passengers, when they came Ashore; other Pilgrims us'd likewise to come to them. What was there offer'd was carried to the Cathedral and divided every *Saturday* among the *Canons* and *Priests*."

What, then, more natural and more likely than that the chapel at Porth Mawr being the landing-place of Irish pilgrims should be dedicated to the great Irish saint, who would be thanked by his votaries for having preserved them from past perils and would be invoked against those which the future might bring, whether from robbers and pestilence on the long land journey or, if they took ship again for a continental port, from the raging currents of Ramsey Sound or the clutches of the Bishop and his Clerks? In the absence of evidence to the contrary, it is not an unreasonable assumption that

<sup>1</sup> Hartwell Jones, *op. cit.*, p. 70.

<sup>2</sup> *Ibid.*, p. 191.

<sup>3</sup> *Survey*, p. 54.

the present building was known as St. Patrick's Chapel from the date of its erection in the 6th–10th centuries.

#### RECONSTRUCTION OF THE HISTORY OF THE CHURCH.

From the existence, as stated above (p. 98), of human remains (1) below the west wall and (2) below the black layer which possibly indicates the floor-level of the chapel, or if that lay higher, the original surface vegetation existing when the chapel was erected, it seems evident that the site was that of an earlier burying-ground. This would be in accordance with the practice which Allcroft maintains, in his elaborate paper cited above, was the rule in early Christian times in Wales and England, the circular churchyards which still remain having been originally barrows on which churches were subsequently erected. Pagan temples were built over one human victim at least. The first churches in Rome (*e.g.*, the original basilicas of St. Peter's and of St. Paul Without the Walls) were built over and around the tomb of a martyr, the tradition being carried on to the present day by the practice in the Roman Church of embedding the relics of a saint in the altar. The presence of the dead was held to be essential to the sanctity of the building.

Discussing the story of the old priest *Criumther* raised by St. Patrick from the dead, Wade-Evans<sup>1</sup> says "the story implies that the chapel which formerly stood in Parc-y-Capel at Porth Mawr, and now attributed to Patrick, represents an ecclesiastical foundation older than his episcopacy, *i.e.*, before A.D. 432." However this may be, on the authority of Mr. Caröe, the remains recently brought to light are of British age, perhaps we may say between the 6th and 10th centuries.

Probably by 1490 the chapel had been abandoned for some years, for while in the cathedral account for that year we find that William Warren, the communarius, acknowledges the receipt of £11 for the issues of the chapels of St. Justinian, St. Non and Gorid Chapel,

<sup>1</sup> *Op. cit.*, p. 70.



there is no mention in the accounts of any profits having been received from any other chapel subordinate to the cathedral. The cause of abandonment was probably due chiefly to the general decrease of pilgrimages due to various causes which began before the end of the 15th century. The inroads of the sea at Porth Mawr which finally produced the present wide-stretched sands, and the silting up and destruction of the estuary which Leland mentions, would render the bay more and more unsuitable for embarkation. Another cause may have been the drifting of the blown sand about the building, rendering it more or less difficult of access.

At the time of its abandonment the chapel was undoubtedly covered with rough slates. Exposed to the strong, prevalent westerly gales, it would not be long before the roof collapsed. For a generation or two, the chapel and its precincts would be regarded as sacred, but as time rolled on reverence for the building would disappear and the inhabitants of the neighbouring farms would begin to pull down the stones and carry them off for building purposes. The pottery of various ages, found chiefly at corresponding levels among the slates, stones and in-blown sand, marks the continuous infilling, until the supply of sand became so slight that the ordinary constituent plants of turf could flourish and, covering the low remnants of the walls, hide them at last from view.

Perhaps the last trace of local religious feeling for the chapel is shown by the presence of the bones of very young children not far from the surface of the infilling: as in the case of some ancient Irish chapels, they may be the remains of still-born infants, so that the chapel raised on an ancient cemetery rendered its last service to humanity by becoming the resting-place of the innocent dead.

## ADDENDA.

## (a) ALLEGED FORMER EXISTENCE OF A BUILDING ON THE BEACH OF WHITESAND BAY.

Mrs. Morgan of Carfarchell (*see* p. 89 above), who was born at the farm-house of Ty Gwyn, near Whitesand Bay, in 1841, has stated to the authors that she recollected seeing the foundations of a building much larger than St. Patrick's Chapel lying some 40 ft. or so from it on what is now the beach. The site of the building now lay under high-water mark owing to the encroachment of the sea on Parc-y-Capel. At the time she spoke of, but little more than the foundations of the building remained, and she believed, though as to this she was not quite positive, that there was a doorway in the north of the building facing towards Ty Gwyn farmhouse. She, however, was certain that the stones of this building were removed and used for the foundation of a new wing which was added to Ty Gwyn about the year 1854 or 1855. This period was fixed in her memory as the wing was built about two years before the family removed to Treiago in the year 1856. She also added that the dressed stones in the new wing at Ty Gwyn were obtained at Porth Seli and were dressed there.

Mrs. Phœbe Llewelin of St. Davids (p. 89 above), aged 87 in August, 1924, who lived not far away from the alleged site, said she had never seen any trace of the foundations mentioned by Mrs. Morgan. The foundations mentioned by Mrs. Morgan may possibly be the "Remains of walls under the sand of Whitesand Bay, about which nothing is really known," referred to by the late Professor Haverfield in his paper "Military Aspects of Roman Roads" (*Trans. Cymmrod*, 1908-9, p. 110, *note*) in connection with the alleged existence of "Menevia." Leland (c. 1536) says: "And sum say that there hath beene a castel at or about Port Mawr, but the tokens be not very evident" (*Itinerary*, 1906, pp. 64-5).<sup>1</sup>

## (b) WHITE CHALK ORNAMENTATIONS ON THE FLAGS BEFORE DOORWAYS.

Mrs. Morgan and Mrs. Phœbe Llewelin also supplied some information anent the use of white chalk decorations with which some 40 years ago people in West Wales used to embellish their door-steps, to prevent evil spirits from entering the house.

<sup>1</sup> Quoted by Wade-Evans, A. W.: *Life of St. David*, p. 70.

Mrs. Morgan recollected them and also the green designs made by using leaves as a substitute for chalk. She was unable to give any reasons for the custom, but mentioned incidentally that an old woman living at Porth Mawr, seeing the white chalk ornamentations on the flags, said to Mrs. Morgan's mother: "I can't see how you like to see the eyes of the Devil on the floor." The remark suggests that in earlier days the patterns may have been known as "The Devil's Eyes."

Mrs. Llewelin also remembered the chalk ornamentations, but knew nothing about the tradition. She stated that the chalk designs were always done on a Saturday ready for a Sunday. There was, she said, no settled pattern for these decorations. The common design consisted of a straight line drawn round the four sides on the surface of a flag, and along the inner sides of the lines a series of loops were made, forming a rectangular ornamental border round the flag. Inside this border, chalk dots were made. This was the simplest form of decoration, but more elaborate designs were to be seen. Thus, her sister used to depict flower-pots and flowers instead of the dots. Mrs. Llewelin also added that white chalk, of which there was no natural supply in the neighbourhood, was procured and sold by the shopkeepers in St. Davids for this purpose, and moreover, that in order to save buying chalk people used to procure a soft yellowish stone from near Rhoson, which they used as a substitute.

Similar chalk decorations are to be seen at the present day in Westmorland and the adjoining counties, specially prepared chalk in the shape of a segment of a circle being stocked in shops for sale. There also, the tradition still survives as to the decoration being a talisman to drive witches away.

## THE ROADS OF NORTH WALES, 1750-1850.

By A. H. DODD, B.A., Lecturer in History, University College of North Wales, Bangor.

THE study of the movement which, nowadays, we vaguely describe as the Industrial Revolution, has tended to devote itself somewhat exclusively to the great centres of industry; but its effects in quieter rural areas like North Wales are no less interesting to the student of social development; and they cannot be rightly understood without a preliminary survey of the means of communication. In the present paper it is proposed to investigate the stages by which the highways of North Wales were made fit for increasing traffic.

The deplorable state of the roads in general at the opening of the eighteenth century is a commonplace, but those of Wales fell below even the unexacting standards of the time. A "Welsh journey" became a byword.<sup>1</sup> In England the first half of the century saw a slow but steady improvement, but Wales was left behind. As late as 1768 the worst thing Arthur Young could find to say about some of the roads of Suffolk was that they forced him "to move as slow as in any unmended lane in *Wales*."<sup>2</sup> Early in the last century hardened travellers could remember the time "before there was a turnpike between Chester and Pwllheli or

<sup>1</sup> "My Intentions weare to have made you a Visitt long Since, but have been soe afflicted with my runatisme that dare not yet encounter a welsh Journey." (Thos. Yale to Joshua Edisbury, Jan. 21, 1696, in A. L. Cust [Mrs. Wherry]: "Chronicles of Erthig on the Dyke," I, p. 46.)

<sup>2</sup> "Six Weeks' Tour through the Southern Counties of England and Wales," p. 250.