# Lyonesse

by O. G. S. CRAWFORD.

NCE upon a time (so tradition says) a region of extreme fertility lay between the Scilly Islands and Cornwall. This land was called Lyonesse; and where now roll the waters of the Atlantic there once stood prosperous towns and no less than a hundred and forty churches. The rocks called the Seven Stones, seven miles west of Land's End, are said to mark the site of a large city. This country was overwhelmed by the sea, and the sole survivor, one Trevilian, escaped destruction only by mounting a swift horse and fleeing to the mainland.

Such, stripped to the bone, is the famous legend of Lyonesse. Had it any real basis in fact, or is it merely an invention of the "dreamy Celt"? There are good reasons for believing that the substance of the legend is true, that within prehistoric times there did actually exist land which is now covered by the sea, and that it has been gradually overwhelmed. In one respect only does the modern critic disagree with tradition. He believes that Lyonesse was the Scilly Islands themselves, not a completely vanished region between them and Cornwall; and that what is now an archipelago of islands was a single

large island, surrounded perhaps by a few rocky islets.

The evidence, both archæological and historical, is very strong. It was my good fortune to be staying in St. Mary's last year, at the time of the spring tides. One day I crossed in a boat to the uninhabited island of Samson; and from the highest point I observed, stretching across the uncovered sandflats between Samson and Tresco, a long straight line of stones. (Plate I, fig. 1). I had not time to descend and make a closer investigation; but when thinking the matter over on my return, I regretted it; for I could think of no natural explanation of the stones. Further, it seemed probable that this was indeed one of those walls described in 1753 by old Borlase.<sup>1</sup> "The flats," he says, "which stretch from one island to another, are plain evidences

<sup>&</sup>lt;sup>1</sup> The Rev. Mr Wm. Borlase, M.A., F.R.S.; Of the Great Alterations which the Islands of Scilly have undergone since the time of the Ancients. Philosophical Trans., Vol. xlviii, 1753. (Abridgements. Vol. x, 1809). The passage quoted in the text is quoted also by Hunt in Popular Romances, p. 193.

# PLATE I



WALL

WALL

1.—WALL ON SAMSON FLATS, TAKEN FROM THE NORTH HILL OF SAMSON  $\it{Ph}.$  Gibson, St. Mary's, Scilly



2.—PARTIALLY SUBMERGED STONE CIRCLE, ER LANIC, BRITTANY  $P\hbar$ . Dr R. C. C. Clay

facing p.5

of a former union subsisting between many now distinct islands. The flats between Trescaw, Brehar and Samson¹ are quite dry at a spring tide, and men easily pass dry-shod from one island to another, over sand-banks (where, on the shifting of the sands, walls and ruins are frequently discovered) on which at full sea, there are 10 and 12 feet of water." The day following next but one after my first visit to Samson was the day of lowest spring tides (16 March 1926) and it seemed a chance not to be missed. Accordingly I chartered the boat again, and accompanied by Mr Alexander Gibson with his camera, landed again on Samson. Our programme was to photograph the line of stones first from the high ground of Samson, then at closer quarters on the sands; and afterwards to walk across to Tresco and thence to the island of Bryher. Such a "submarine" walk is only possible at low spring tides.

We found, on walking out across the sands, that the line of stones was undoubtedly the remains of a wall of human construction. (Plate II, fig. I). It consisted of a number of boulders and stones of about the size and shape of a milestone, some of them still standing upright. All round on either side of the wall were scattered the smaller stones which once filled the spaces between the larger uprights. Elsewhere the sands were almost bare. The fact that some of these stones still remained standing proved conclusively that the thing was artificial, but indeed its general appearance left no

doubt whatever in our minds with regard to this.

It was one of those thrilling moments which occasionally occur in the life of an archæologist. Here before us was tangible proof that the land had sunk since prehistoric times; for no one makes walls like this below high water mark. While Mr Gibson was taking photographs,

I wandered about on the sands and picked up a few flint flakes (Fig. 1). Most of these were lying on the tide-scoured sand below the ordinary low water mark. Their edges, originally sharp, have been smoothed by the action of the sand and water, so that they have the appearance of gravel-rolled flints. They are quite white and the surface is matte. A few are illustrated here.

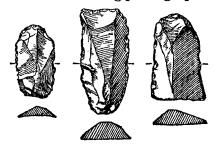


Fig. 1. Flint Flakes picked up on Samson Flats.

<sup>&</sup>lt;sup>1</sup> Samson Flats falls on sheet 87 NW. of the 6-inch o.s.

## PLATE II



1.—THE SUBMERGED BOULDER-HEDGE ON SAMSON FLATS Ph. Gibson, St. Mary's, Scilly



2.—MODERN "HEDGE" OF BOULDERS NEAR WATERMILL, ST. MARY'S, SCILLY  $\it Ph.$  Gibson, St. Mary's, Scilly

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The wall was about 250 yards long, and ended at a bare, rocky eminence called Black Ledge. On the further (north-eastern) side of this rock, a line of stones was visible, half covered by the sea even at this exceptionally low tide. I waded out to it in the hope of being able to discover whether it was another of these walls; but the water was over my knees and the tide was on the point of turning, so that I could not satisfy myself on this point.¹ We duly reached Tresco—though neither of us dry-shod!—but the tide was now rising and we were too late by about ten minutes to continue on foot across to Bryher. My reason for wishing to visit that island was that on the 25-inch map there are marked some apparently very perfect examples of prehistoric stone walls. We were not disappointed. We found them on the bleak hill which forms the northern part of the island. They were precisely similar in character to the submerged wall we had just visited.

Such prehistoric walls occur on all the larger islands, and on some of the smaller ones which are not now inhabited. A peculiar feature is that at frequent intervals along them occur small round cairns of I observed these on St Mary's, on Gugh, and on Samson, as well as on Bryher, where the cairns are marked on the 25-inch map. They are said to occur also on similar walls on the moors of Cromar, in Aberdeenshire. The walls themselves are clearly field-walls. Even to-day the field-walls of the Scilly Islands are made in exactly the same way. (Plate II, fig. 2). I happened to see one being built. Large upright stones are set up some few yards apart, and the space between is filled with smaller stones. The materials are obtained, whenever possible, from the area to be enclosed. The task of building these "stone hedges," as they are called, is not so simple as it might appear to be; considerable skill is required, and no doubt the inherited experience of generations has been handed down by tradition from prehistoric times.

The stone hedges of abandoned fields are to be seen on the moorlands everywhere in Great Britain. They are common in Wales, where, too, the old methods of construction are still employed, There, a wide double row of upright stones is set up, and the space between—often as much as six feet—is gradually filled in with smaller stones picked from the field itself. When the wall is left to fall into ruin, this core of smaller stones spreads out on either side of the

<sup>&</sup>lt;sup>1</sup> Since writing this, Mr. Alexander Gibson reports that he has been told of similar submerged walls between the west coast of Samson and White Island, and off the west shore of Tresco.

uprights, and they too gradually collapse, till only a few are left standing. In some parts of Wiltshire, where the downs are covered with sarsen stones, these were set up round the prehistoric field. Many such are to be seen in the lynchets of Celtic fields on the Marlborough downs. The Celtic fields on the hills round Bath were enclosed by dry walls, set with a few large bonding uprights (called "grounders" in Cornwall); but owing to the flat cleavage of oolitic limestone, the construction was much easier, and the walls consisted, for the most part, of quite small stones, as they do to-day.

An interesting account of the construction of these boulder-hedges in Cornwall is given by Hunt in his fascinating *Popular Romances* of the West of England.¹ Some echo of prehistoric times lingered even in the last century. Tom, the Giant, was a great hedger, when in the mood for work; "then, if he found any of his neighbours hedging, he would turn to and roll in all the largest rocks from over the fields,

for 'grounders.'"

From another legend we learn how Tom came to the castle of another giant. "This place was hedged in with great rocks. . . . they call them the Giant's Hedges to the present day." He was returning from market, fortified by three or four gallons of beer, and in a somewhat truculent mood, it would seem, for he determined to fight the giant. He opened the gate and drove his two oxen and the waggon through. He drove for a mile without seeing anything except the fat cattle of all sorts in the fields. At last he came to a pair of gates in a high wall, which was close to and surrounding the giant's castle. There was no passing round these, as there were deep ditches on either side of these gates. In due course he met the giant and killed him, succeeding to his wife and cattle and all his possessions. Have we not here a faithful description of a typical prehistoric hill-fort surrounded by its fields and pasture grounds?

But to return to the Scillies. The boulder-hedge on Samson flats is plainly just such a hedge as those I have described. It cannot possibly have been made when the land stood at its present level, for it is completely submerged except at ordinary low tide. The question may be asked—How comes it to have been preserved? Why has it not been destroyed by the sea waves? The answer is, I think, supplied by the Geological Memoir<sup>2</sup> on the Scilly Isles; but I must first explain

<sup>&</sup>lt;sup>1</sup> Third ed., London, 1881, pp. 56, 60.

<sup>&</sup>lt;sup>2</sup> George Barrow, F.G.S. The Geology of the Isles of Scilly. Memoirs of the Geological Survey of England and Wales (on sheets 357 and 360), H.M.S.O., 1906. 18

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that Samson flats lie within the inland sea of Scilly, where the huge Atlantic rollers never come. Erosion, therefore, is less violent here than round the outer shores of the archipelago. The bed of the shallow inland sea is uniformly sandy; and it is suggested by the author of the Geological Memoir that the presence of all this sand needs some explanation. He considers that it was originally formed by the action of wind—that the sand flats are, in fact, submerged sand dunes. It seems therefore probable that the prehistoric walls were buried in sand before submergence; and that this mantle of sand protected them from destruction by the waves. The tidal scour has now removed the sand, but it has little erosive power against the heavy boulders of which the walls were made.

The history of Samson Flats seems to have been as follows:—originally the whole archipelago stood at a higher level than at present, consisting of one or more large islands with an outer fringe of reefs and islets. The area now occupied by the inland sea was a level plain covered with a thick layer of glacial deposit, resting upon the granite rock and forming a region of relative fertility. This would have been the most "habitable" part of the region, because of the greater depth of soil, and because it was sheltered on all sides by higher ground. Here lived the prehistoric builders of the submerged walls. Here were their huts and the pasture grounds of their flocks and herds, separated by the walls whose remains have so strangely been preserved beneath the sea.

But all the time the Atlantic was steadily pounding the outer islets into sand, and the wind carrying this sand inland from the west, to fall on the lee side of what is now Samson. At last the whole of the inland plain was buried. Then the land sunk—it may have been slowly sinking all the time—and the shores assumed something like their present outline.

But not quite their present outline; for everywhere to-day, even round the calmer shores of the inland sea, wave-erosion is proceeding. The soft blanket of glacial deposit—a gritty clay or gravel—is being eaten into bays; sand dunes are forming again; and the habitable area is being yet further reduced. The smaller islets are rapidly losing their glacial mantle, and with it go the grass and flowers. Even the larger islands will one day be split up into barren reefs by the waves; for when once glacial soil is gone, the most flowery isle will be as desolate as Mincarlo.

That England stood at a higher level in prehistoric times has, of

course, long been known. Everywhere along the coast may be found remains of submerged forests exposed at low tide. Flint implements have frequently been found among the roots of the trees; and in Essex Mr Hazzledine Warren found a skeleton buried below high water mark. With true insight Mr Warren called this the "Lyonesse" surface, although the facts here brought forward for the first time were then quite unsuspected. Such a forest may still be seen in Mount's Bay, between Penzance and St. Michael's Mount; it is certain that the land stood at a higher level when it flourished here. flint flakes of human manufacture have been picked up in it; and a piece of wood, humanly fashioned, has been found in Marazion marsh at least 12 feet below mean sea level. Human remains, including human skulls and bronze implements, have been found in the submerged beds of the valleys. All these facts prove subsidence; they have been fully dealt with by the late Mr Clement Reid in his book on Submerged Forests.1

A similar subsidence has taken place in Brittany, and in the Channel Islands during prehistoric times. In Jersey there is a fine submerged forest in St. Brelade's Bay, and it is even said that prehistoric burial cists or chambers occur below high water mark. Unfortunately the precise archæological period to which these remains

belong is still uncertain.

The evidence from Brittany is much clearer. What could be more startling than the half submerged Stone Circle<sup>2</sup> on the island of Er Lanic illustrated on plate 1, fig. 2. Could more sensational evidence of subsidence be found anywhere? Some of the stones are standing upright still after all these years; but some, which had fallen, have

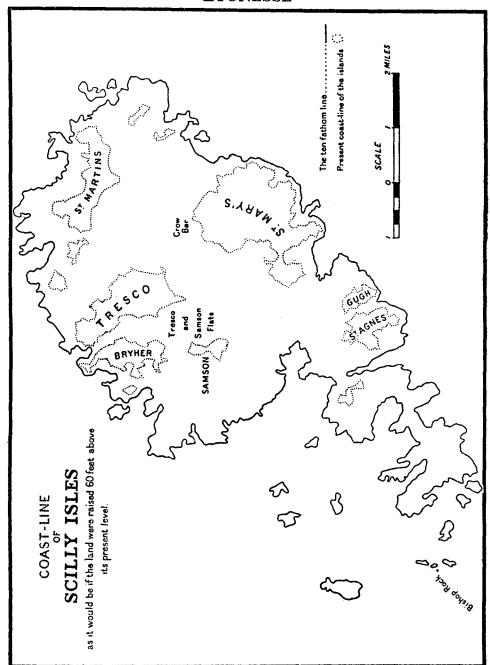
been set up again in their original holes.

That the Scilly Islands were once a single large island—or one big one with a few islets or reefs—may therefore be taken as proven; and it may further be said that part at least of this submergence took place within prehistoric times. It was part of the same movement as that which affected the coasts of Cornwall and Brittany. How long it is since the Scilly Islands were split up is a difficult matter to determine. That they were still a single island as late as the third century of the Christian Era is suggested by the fact that Solinus, writing about

<sup>&</sup>lt;sup>1</sup> Clement Reid, F.R.S. Submerged Forests. Cambridge Manuals of Science and Literature. 1913.

<sup>&</sup>lt;sup>2</sup> A good illustration of the Circle was published in *The Sphere*, 21 August 1926.

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240 A.D. speaks of them in the singular—Siluram insulam.¹ The only other ancient writer who mentions Scilly by name—Sulpicius Severus, 400 A.D.—also refers to it in the singular. It would be dangerous to rely too much upon this evidence, but it is at any rate not in conflict with the evidence from other sources.

Probably my readers have been hoping to learn the date of the wall or boulder-hedge on Samson Flats. How old is it? Alas, at present it is impossible to say. All that one can say is, that up to the present, there is no evidence that either the Scilly Isles or Cornwall were inhabited at all before the Bronze Age, and that the wall may have been made therefore at any time from the Bronze Age to the beginning of the present era. (It is hardly likely to be later). It may, of course, be older, for, let it be observed, I do not say that Cornwall and the Scilly Isles were uninhabited before the Bronze Age, but that there is no evidence that they were inhabited, and that is a very different thing. The only proof that they were inhabited before the Bronze Age would be the discovery of pottery or other remains which can be proved to belong to an older period; and those remains have yet to be recorded. Stone implements were made and used throughout the Bronze and Iron Ages, and the absence of metal on an excavated site proves nothing. The West of England abounds in prehistoric remains, but it has yet to produce an archæologist of the first rank. The scientific study of these remains has not yet begun, though Lukis and Borlase were both excellent archæologists in their day.

The Legend of Lyonesse may, then, be true; but is it a direct traditional inheritance of the submergence? I think not. It is more likely that it has arisen in later times, through the acute observation of fishermen and other unlettered folk. It is a common mistake to suppose that an "uneducated" person is less intelligent or less accurate in observation than one who has acquired book-knowledge. It would probably be more true to say that he is more intelligent and a better observer, because his mind is clearer. That certainly holds good so far as my limited experience of "primitive" people goes. Provided they are quite unspoilt by book-learning, their observations

<sup>&</sup>lt;sup>1</sup> His actual description is worth quoting:—" A tempestuous channel separates the island of Silura from the coast occupied by the British tribe of the Dumnonii. Its inhabitants even to-day have primitive customs; they do not recognise money; they give and exchange goods; they obtain the necessaries of life by barter instead of by purchase; they worship gods; and men and women alike claim to foretell the future." Polyhistor., chap. xxiv.

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are generally trustworthy and their deductions sound, up to a point. In this instance, it seems to me probable that the legend arose somewhat after this fashion. Fishermen and others observed these walls (they still observe them and have told me of the existence of others that I have not yet been able to go and see). They recognize that they are of human making, and that they could not have been made when the land stood at its present level. They infer, quite correctly, that the land must So far the inference is correct, and the process of reasoning could not be improved upon by the most eminent "highbrow." the science of geology is a closed book to them; they do not realize the infinite slowness of Nature, and they bring in a cataclysm to account for the submergence. Our ancestors did the same elsewhere, and they were accounted wise men in their day; but their outlook was arbitrarily confined, and their conclusions therefore were erroneous. It was not —at least it need not have been—a cataclysm which submerged Lyonesse; such a cataclysm, involving a drop of so many feet, would be unique in history. It would have been accompanied by an earthquake that would have shattered every building and monument in No, it is unnecessary to assume any violent disturbance; for the ordinary movement of the crust will account quite well for the facts.

Thus, too, it was incorrect to infer—if the real authors of the legend ever did, which I doubt—that any land ever wholly disappeared between Land's End and the Scillies. If the preceding argument is correct, the Seven Stones must once have been a habitable island, now reduced to a bare skeleton by subsidence and the erosion of its glacial covering. But it is unlikely—though perhaps not impossible—that the islands were once connected with the mainland. Inference here passes into the realm of speculation.

We meet with a precisely similar case of folk legend in the heart of England; and it probably arose from similar observations of fact imaginatively interpreted. In Shropshire are many meres or small lakes. On the shores of some of them there were prehistoric lakedwellings; and in one, at Ellesmere, the causeway leading to the settlement (now submerged) has been met with. Of these meres many folk tales are told, recalling times when the site was occupied by a palace, town, or church; and it is said that the bells of the

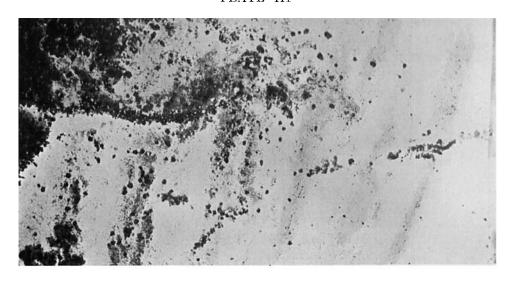
<sup>&</sup>lt;sup>1</sup> Shropshire Folklore, edited by Charlotte Sophia Burne, from the Collections of Georgina F. Jackson. London, 1883, p. 77.

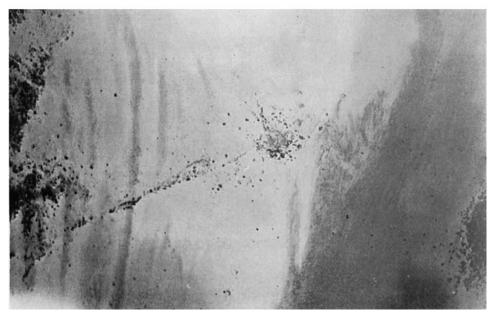
church still lie there, and have even been seen and heard. What is this but a fisherman's inference from the observation of a causeway, "old crocks," wooden piles and such like, encountered while fishing? (It must be remembered that only since the universal use of china for domestic purposes has the villager ceased to recognize potsherds as evidence of occupation; for the broken pots of 200 years ago were not vastly unlike those of prehistoric times, and he knew what these were when he saw them).

Every ancient site doubtless once had its legend to account for its origin. Some doubtless contain an echo of times past, however faint; and others may have arisen from crude rationalization. The Legend of Lyonesse undoubtedly contains a vestige of antiquity, though the land may have sunk with infinite slowness, and Trevilian have hastened in vain.

Thanks are due to the officers of No. 10 Group, R.A.F., and No. 480 Flight, Calshot, who are responsible for the taking of the air-photographs reproduced on plate III. These photographs bring out the artificial nature of the wall very clearly, and indicate the existence of short lengths of others with a different alignment. The photographs are reproduced with the permission of H.M. Stationery Office, and their publication has been approved by the Air Ministry.

# PLATE III





SUBMERGED WALL ON SAMSON FLATS, TAKEN FROM THE AIR  $\it{Ph}.$  by 480 FLIGHT, CALSHOT

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facing p. 14