NOTICE OF A CRANNOG DISCOVERED IN LOCHLEVEN, KINROSS-SHIRE, ON 7TH SEPTEMBER 1887. By R. BURNS BEGG, F.S.A. Scot.

The recent discovery of the remains of a crannog in the bed of Lochleven, verified a belief which I had long entertained, that traces of prehistoric occupancy were to be found within the circuit of the loch. This belief arose not solely from the fact that the loch occupies a central situation in a district abounding in relics of prehistoric times, but also, and indeed chiefly, from the fact, that several years ago the remains of an ancient canoe had been found embedded in the loch, clearly showing that it had at some remote period formed the "habitat" of a primitive race. For several years my efforts to discover tangible proof in support of my conviction were unsuccessful, and I had nearly abandoned all hope of ultimate success, when in the course of last spring I fortunately alluded to the subject in course of conversation with a boatman (Richard Kilgour), who for upwards of half a century had been thoroughly familiar with Lochleven and its surroundings. On my describing to him as nearly as I could the appearance which the remains of which I was in search would probably present, he stated, that he had since his boyhood known of the existence at the bottom of the loch of a peculiar mound consisting of an accumulation of stones and timber which he had often puzzled his brains to account for, and which he volunteered to show me. This offer I gladly availed myself of as soon as the waters of the loch had subsided to their summer level, and we at once embarked, and under his intelligent and interesting guidance we had no difficulty in finding the object of our search. It consisted of a mound entirely under water, clearly artificial in its formation, and rising to a height of about  $1\frac{1}{2}$  or 2 feet from the bottom of the loch, and covering a superficial area of from 30 to 35 yards in length and about 20 yards in breadth. At its highest point the mound was upwards of a foot under the surface of the water, so that the depth of the water all around must have been fully 3 feet. The mound was situated about 60 yards from the land, at a point near to, and directly south from, the west entrance to the public burial ground of Kinross.

It is right that I should here state that about half a century ago the depth of Lochleven was reduced to an extent of about 9 feet by the artificial lowering of its outlet, so that the depth of water all around the deposit which I have indicated above (3 feet) represents a depth of about 12 feet in days of old.

The day (7th September last) on which we first inspected the mound was not at all favourable for such a purpose, as the water had been rendered "drumly" by heavy rain which had fallen the day before, and besides there was a very decided ripple on the surface of the loch. Our investigation, therefore, was anything but complete or satisfactory, indeed we had to glean our information more by groping under the water than by actual perception, but still unsatisfactory and incomplete as it was, it fully convinced me that I had at length discovered the object of my prolonged search.

The mound consisted of an immense deposit of timber and brush-wood covered with stones, and we succeeded in recovering from the bottom of the loch several pieces of the larger timbers of which the structure had been composed. These we found consisted of undressed trunks or trees, elm, beech, and birch, and a considerable part of the brushwood we ascertained to be hazel branches. The larger timbers,

which were fully 9 inches in diameter and 12 feet or upwards in length, were found at the bottom of the deposit, and above these was found a transverse layer of smaller timber of 3 inches and upwards in diameter, which was surmounted by a thick layer of brushwood, the whole being covered over with stones evidently gathered from the loch, and apparently selected, as the stones were somewhat larger and far more nearly uniform in size than those which are generally found scattered along the margin of the loch. The pieces of timber which we secured were quite natural and fresh in appearance, in most instances even retaining the bark still with its tints as vivid and natural as when it grew on the tree, but when handled the fibre of the wood was found to be quite gone, and they were so pulpy that they could in most cases be squeezed with the hand almost like a sponge. The only trace of workmanship which we discovered was at the termination of the logs, many of which were cut in a slanting direction, as if for the purpose of being joined or fitted to the end of the log next in position. were no traces, whatever, of mortising or pegging, nothing in fact but the hatchet-cuts, which appeared to have been made with a very blunt instrument. Outside the mound, and at a distance of only a foot or two from it, could be distinctly traced all round the south or lochward side a rude crescent-shaped breakwater of about 2 feet in height, consisting of stones laid one above the other, and presenting a sloping face towards the loch. This breakwater at either end curved slightly inwards towards the shore, and it was thus calculated, and no doubt intended, to protect the inner structure at its most exposed points, by breaking the force of the waves before they reached the piles supporting the platform.

Having fully examined the deposit under water so far as it was possible for us to do so, I next directed my scrutiny towards the shore of the loch immediately opposite to the apparent site of the structure, and here I was fortunate enough to discover embedded in the sand above the present water-mark, the pointed end of a strong wooden pile, evidently of the same age as the timber we had already recovered. This pile was about 9 inches square, and as its position was nearly opposite to the centre of the deposit in the loch, I conjectured

that it had formed one of the supports of the gangway connecting the crannog with the shore.

From the position of this pile, and from the general character of the deposit in the bed of the loch, as well as from the other information we gathered in course of our examination, I conjectured that the structure had consisted of an oblong wooden platform raised above the level of the water on piles, 12 feet or upwards in height, driven into the bed of the loch, and extending along the shore, from which it was about 75 yards distant, and that this platform had been connected with the shore by a gangway similarly supported. I was also of opinion that the platform had consisted of the larger timbers already described laid on the tops of the piles, and that on the top of these there had been a transverse layer of smaller timber laid closely together, and covered over with a thick layer of brushwood, the whole being surmounted by a layer of stones in order to give the structure a solidity and weight sufficient to resist the action of the wind and the waves of the loch.

I at once communicated to Dr Anderson the discovery which I had made, and I forwarded to him the pointed end of the pile to which I have referred, as well as one or two pieces of the timber showing the hatchet marks. He, however, with that cautious circumspection which has characterised every Scotch antiquary from the days of Jonathan Oldbuck downwards, very naturally declined to recognise the structure as a crannog in the absence of any actual proof of human habitation. This seemed to me rather a disappointing requisition, especially as I saw no prospect of the waters of the loch subsiding to such an extent as to admit of my investigating the deposit more minutely than I had already done. Fortunately, however, the past autumn proved to be an exceptionally dry season, and the waters of the loch subsided several inches below the lowest level of many previous years, and on the 14th of October last, I was glad to find that the extreme edge of the deposit next to the shore was actually projecting a few inches beyond the water-mark. I at once employed intelligent and careful labourers to lay bare as much of the structure as the water enabled them to reach. There were no stones at this part, probably owing to these having at

some time been gathered and removed for building purposes, and the brushwood too had either decayed or been washed away. On removing the slight deposit of sand which covered the timbers, we found the structure to be exactly of the character I had conjectured, but we could find nothing to indicate how it had been fastened or held together. We, however, found from the position in which the timbers were lying embedded in the sand, that the whole fabric had evidently collapsed en masse, and not piecemeal, for the logs were lying in a solid mass and in regular order side by side. The deposit of timber and decayed vegetable matter was about a foot and a half in thickness, and the lower ends of the supporting piles were still found in their original position, most of them being perpendicular, while not a few of them were driven in a sloping direction, evidently for the purpose of resisting lateral pressure. In course of turning over the exposed parts of the deposits, small as the extent of these was, we succeeded in recovering undoubted traces of human habitation. These consisted of animal remains, bones and teeth, chiefly of the ox, the swine, and the deer; part of a rude clay hearth, with the ashes adhering firmly to the upper surface of it; some pieces of charred wood; and several fragments of coarse, thick hand-made pottery, which had evidently formed part of a vessel of unusually large dimensions. The only trace of handicraft which we discovered was a small piece of wood with rude carving upon it, which was conjectured to be the handle of a wooden scoop or These formed the whole of the relics which we were able to recover from the water, and considering the extremely limited portion of the structure which we had to operate upon, it is perhaps a matter for surprise as well as congratulation that the proofs of human habitation were so numerous and conclusive. Taking advantage of the lowness of the water, I on the same occasion made a further exploration all along the supposed site of the gangway connecting the crannog with the shore. We had no difficulty in finding the remains of the piles by which it had been supported. These stood in two straight parallel rows 12 feet apart, the piles in each row occurring at regular intervals, with a space of from 4 to 5 feet between each. This continued with wonderful regularity from the edge of the mound where we had

been operating directly towards the shore, which must have been fully 75 yards distant before the level of loch was reduced, but at about mid distance the piles became somewhat less regular, and at this point we also came upon traces of a transverse row of piles, smaller in size, and placed much more closely together, which had gone straight across the site of the gangway. This transverse row of piles led me to conjecture that the permanent platform may have terminated at this point and been continued for the remainder of the distance shorewards in a lighter and more movable form, in order to admit of its being easily withdrawn when necessary for more perfect isolation and security.

From the situation of the structure, at barely a stone's throw from the shore, as well as from its general character, it presented to our ideas nothing indicative of an ancient "stronghold," but rather of a secure "domestic retreat," where a peaceful and industrious community may have found security from the ravages of the feræ naturæ which at that remote period probably infested the widespread wooded plains then encircling Lochleven on the north and west.

The crannog has been characterised by Sir Herbert Maxwell, a very competent authority, as unique in so far as regards Scotland, but the reason why no Scotch crannog of the same description has hitherto been found, is I think to be attributed not to their having been uncommon in olden times, but owing simply to the nature of such structures having rendered them peculiarly liable to speedy and entire annihilation through gradual decay. In this particular case the preservation of the debris has arisen solely, I think, from the exceptional and accidental circumstance of the platform having collapsed suddenly and entire to the bottom of the loch, where it has lain submerged for centuries, protected by its superincumbent mass of stones from the action alike of the waves and the air. Had it fallen by degrees, the brushwood and timbers would undoubtedly have at once drifted ashore, and would in a very short space of time have decayed from exposure.

It is exceedingly unfortunate that, owing to the mound being so entirely submerged, it was impossible for us to make a more thorough investigation last season before the waters began to rise to their winter level, but next summer I hope we may be able to devise means for doing so more thoroughly while the waters are low. It will, however, be difficult to devise satisfactory means for such further investigation, owing to its being utterly impossible by any available appliances to lay the deposit dry, and of course groping for antiquarian relics in a heap of débris lying fully 2 feet under water can never prove to be a satisfactory proceeding. The only plan that has yet suggested itself to me is to scoop out the whole deposit carefully, and wheel it to the shore, and examine it minutely there. If this were done, I am very sanguine that the crannog will, as predicted by Dr Anderson in his letter to me, yield a rich field for future antiquarian research, by bringing to light many articles of common domestic use which may now be lying buried among the ruins of the structure. I also think that there is reasonable ground for supposing that this crannog may have formed one of many similar erections in and around the secluded and picturesque waters of Lochleven, and further investigation may yet disclose other remains of the same kind, and reveal to us much of the prehistoric character of the secluded, interesting, and picturesque plain which now forms the little county of Kinross.