EXCAVATION OF FORT "SUIDHE CHENNAIDH," LOCH AWE. 117

V.

EXCAVATION OF THE FORT "SUIDHE CHENNAIDH," LOCH AWE; AND DESCRIPTION OF SOME ARGYLESHIRE CAIRNS. BY DAVID CHRISTISON, M.D., SECRETARY. (PLATE IV.)

The Scottish stone forts of dry masonry may be conveniently divided into three classes:—

1. The Brochs, well defined in form and of limited size, whose structure, distribution, and history have been thoroughly investigated by Sir Henry Dryden, Dr Joseph Anderson, Mr Joass, Mr Goudie, Captain Thomas, and others. 2. Structures which may have been brochs, as far as size and ground-plan go, but which are either too dilapidated for investigation, or which have not vet been investigated. To determine the geographical distribution of this class would be a tedious, but most important and by no means impossible undertaking; but to determine their structure, and whether they have been brochs or simple solid towers, or something intermediate between the two, is probably impossible now, unless in a very few 3. Stone forts of a larger size, and varying much in form, instances. capable, no doubt, of being subdivided into other classes, when we are better acquainted with them. This has been probably by much the largest and most important class of the three, both in the Highlands, where it enters into direct competition with the brochs, and more particularly in the Lowlands, where only a few of the latter have been identified. Nevertheless this class, with the exception of a few of the more prominent examples, such as the Cathertuns, and those which are supposed to be vitrified, have attracted little or no attention. In the Highlands they are generally perched on the summit of steep and rocky knolls, and give little sign of their presence till the site is reached. In the Lowlands many of them have been entirely removed, and many others, buried under an accumulation of soil, are mistaken for earthworks. Thus it has come to pass that the number and importance of this third class have not been duly recognised in the past.

Little or nothing has been done to ascertain by excavation the structure of forts in the doubtful classes; and to remove this reproach on Scottish Archæology the Council of our Society made a beginning this year by granting a small sum from the Rhind Excavation Fund for the investigation of two forts in Argyllshire. One of these, on the Island of Luing, was of limited size, but being considerably larger than any known broch, and being of a long oval form, was not the least likely to prove to be a broch. The excavation of this was entrusted to Dr Allan Macnaughton, F.S.A.Sc., of Taynuilt. The other, which is the subject of this paper, being of small size and circular, might be a broch, and for this very reason it was desirable to investigate it, but it also presented the attraction of an unique circus-like arrangement of the interior, as described and figured in my short notice of it in a paper on the Forts of Lorne (*Proc.*, 1889, 413).

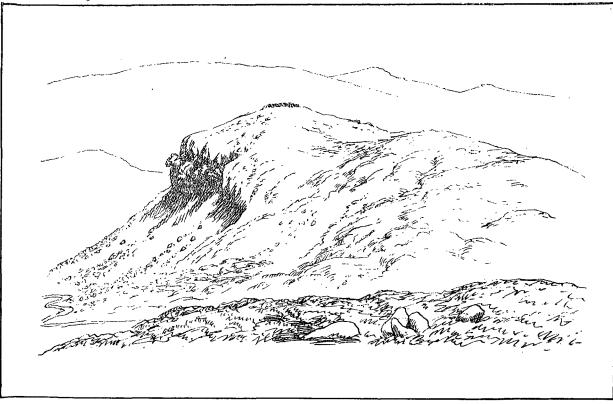
Suidhe Chennaidh, "the seat of Kenneth" (by a slight variation in pronunciation it might be "the seat of the king"), is situated one mile N.N.W. of Kilchrenan Church, and about a mile further from Loch Awe, on the top of a rough rocky knoll, precipitous to the N.E. (Plate IV.), at an elevation of about 600 feet above the loch, and 700 above the sea. Permission to excavate having been granted by Mrs Cameron Campbell of Inverawe, the proprietress, and by Mr Buchanan, the tenant, operations were carried out during a fine week in May 1890, under my superintendence, with occasional aid from Dr Macnaughton and Mr Charles Macdonald, the gamekeeper on the estate.

The ruin, as it stood before excavation, may be briefly described as consisting of a zone of tumbled stones, 30 to 40 feet wide, and averaging from 6 to 9 feet in height, from which peeped out here and there the remains of a wall of dry masonry. The diameter of the interior could be made out to be about 40 feet, but the outer half of the enclosed circular space was filled up with a series of irregular and broken ledges or steps, overgrown with green turf, giving the interior a singular circuslike aspect. The only entrance, which was to the north-east, was blocked by debris, and was masked inside by the continuance in front of it of the ledges or steps.

The first step was to clear out the entrance, and remove the debris

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SUIDHE CHENNAIDH FROM THE NORTH-WEST.

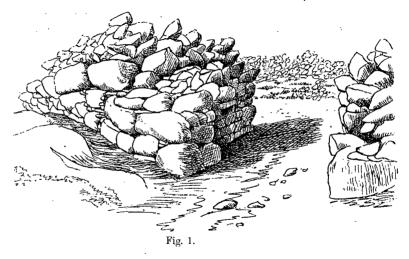
from the inner face of the wall all round, and from the outer face as far as seemed necessary.

1. The entrance was found to be preserved to a height of a couple of feet at the outside, and of $4\frac{1}{2}$ feet at the inside. It may be described as \sim consisting of an outer and an inner division (fig. 3, No. 12). (a) The outer division is about 5 feet long and has straight sides, which converge from without inwards, so that the breadth is contracted from 6 feet at the outer end to 5 feet 4 inches at the inner end. Within this is a rebate of about 6 inches on each side. (b) The inner portion of the passage is about 9 feet long and has slightly curved sides, the width at the two ends being about 6 feet 6 inches, and in the middle a little over 7 feet. The sides of the inner division converge upwards, and even seem slightly arched at the top, but this latter appearance may be due to slipping of Fig. 1 is a view of the entrance, from a sketch taken by the stones. myself, standing on the excavated rubbish. This was the only point from which a view from the outside could be got, but it is several feet higher than the original approach, which sloped gently downwards from the entrance. This view shows a little square recess in the wall behind the rebate. There is no bar-hole on either side. Immediately behind the rebates the masonry is rough, as if the stones had fallen into a kind of groove there, or perhaps from the rude removal of door-posts.

2. The wall is nearly circular, and varies from 13 to 14 feet in thickness. It stands on the natural surface of the ground, which is several feet higher on the north than on the south, and is irregular, from several smooth tongues of rock, several feet high, which radiate outwards from the wall without penetrating to the interior. The rise of the wall over one of these tongues is seen in fig. 1. From this irregularity of the foundation, considerable portions of the wall have slipped inwards on the south and outwards on the north. This slipping of the wall caused me to overestimate its width in my former account. The outer (fig. 1) and inner faces (fig. 2, from a photograph by Dr Macnaughton) consist of fairly well-fitted blocks, varying much in size and shape, the interstices having originally been carefully packed with small stones, although many of these have fallen out. The internal masonry between the faces is of a ruder character. The wall stands all round, but only to a height of from

2 to $4\frac{1}{2}$ feet, debris being piled on the top to a further height of from 2 to 5 feet. No trace of a doorway in the inner face, or of a gallery or chamber in the wall, was seen, but it was only near the entrance that the debris was sufficiently removed to ascertain the two latter points.

3. The stair-like ledges in the interior.—(Plate XVI. vol. xxiii.).— They are also seen through the entrance, fig. 1, but, from the unfavourable point of view, appear far too small and far off. A section was made through these in continuation of the excavation of the entrance, and another at right angles to this across to the wall from north to south. These sections were about 6 feet wide, and were carried

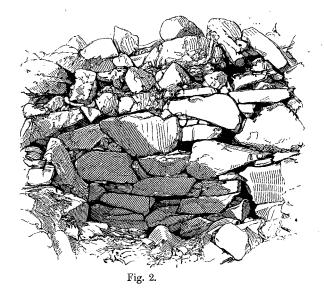


down to the soil. Nothing was found but a confused mass of stones, without a trace of building, and with no structural attachment to the wall face, against which the mass was piled to a height of 3 or 4 feet. The ground below these sections was then excavated down to the rock, but nothing was discovered; and as the results were so negative it was considered unnecessary to undertake the heavy and expensive job of removing the remaining mass of the "stairs."

4. Central level space.—The nearly level grassy floor, encompassed by the "seats," 20 to 24 feet in diameter, was somewhat rough on the

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surface from the presence of a few half-concealed stones. On removing these and the turf, the rock was encountered only a few inches below the surface in several places. It was much too irregular and dipped too abruptly to have formed a natural floor to the fort originally. Fifteen feet from the entrance, nearly opposite to it, and only a few inches under the turf, was the centre of a flat somewhat circular mass of ashes, about 5 feet in diameter and a few inches thick. It consisted of finely powdered, though damp, light gray ash, and scattered through it were fragments of charcoal no thicker than twigs of heather. Smaller similar



hearths were found in two or three places, one of them resting on rock, and all only a few inches below the surface. Ten feet from the entrance, in line with its north side, a small built hearth, likewise close to the surface, was uncovered, consisting of two long narrow stones, 20 inches by 3 and 2, which formed the back, and a few smaller stones on the sides. This hearth contained ashes and charcoal. A portion of the interior near this seemed to have been made level by a layer of stones,

—causewayed, as the workmen expressed it; and some flat stones near the ashes may have served as seats round the fire. Neither implement nor pottery of any kind were seen, but fragments of bones were found in several places near the ashes, and only an inch or two below the surface. The bones were submitted to Mr. James Simpson, Assistant Curator in the Anatomical Museum, Edinburgh University, and the following is a summary of his report upon them :---

"The bones are in a very fragmentary condition and their surfaces so abraded as to make identification extremely difficult. After careful comparison with entire bones in the Anatomical Museum, I was able to recognise remains of at least three animals—(1) Equus caballus, represented by the proximal third of a right radius, and by two fragments of an atlas vertebra. (2) Cervus elaphus. A portion of the lower end of the shaft of a left femur. The animal to which this belonged must have been of larger size than the Red Deer we see nowadays. (3) Cervus capreolus. Lower end of right humerus. This bone had been split, and bore tooth-marks on its inner aspect. Portion of the humeral end of a right scapula. On its inner aspect there were three distinct tooth indentations, and there were also tooth-marks on its outer surface. Portion of the shaft of a radius, also bearing evidence of having been gnawed. There were other ten fragments of bones, but these were too fragmentary to allow me to identify them."

The greater part of the free inner space of the fort was excavated down to the solid rock or hard earth, but nothing was found. If there is any well within the fort, it must lie somewhere under the remaining "stairs." The nearest water is a stagnant pool at a small marshy spot 30 or 40 yards off, but there is no running water nearer than the little burn (seen on the left in Plate IV.), which drains the neighbouring Lochan Droighinn, and courses under the north side of the knoll on which the fort stands.

General Remarks.—Suidhe Chennaidh has evidently been a round tower of dry masonry, with a wall 14 feet thick at the base, and of considerable height, as proved by the amount of debris remaining after the removal of large quantities to build a dyke. This took place in the lifetime of Mr Macdonald's father, who could remember when the ruin stood to a height of about 20 feet. The important question whether it is a broch or not cannot be quite conclusively answered, although the evi-

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dence is negative, on the whole. No sign of a stair or gallery in the thickness of the wall, or of a doorway leading to such, was found; but as the structural part remaining does not exceed 4 feet in height, the absence of these signs of a broch is not decisive; and all that Mr Macdonald has to say as to his father's information is that he never heard him speak of stair, gallery, or window in the structure.

As the entrance is the only part of the structure which has much character, I have collected in fig. 3, for comparison, from the fifth volume of Archæologia Scotica and from Lord Dunraven's Ancient Irish Archi*tecture*, ground-plans, reduced to the uniform scale of $\frac{1}{16}$ inch to the foot, of the entrances to nine brochs, two Scottish, and three Irish stone forts. The broch entrances are characterised by their low roof, narrow width, and the upward approximation of the side walls, which makes them somewhat narrower at the roof than at the floor. The groundplans of the broch entrances (figs. 1 to 9) show a considerable variety in In Nos. 5, 6, and 9-Carn Liath, Cin Trolla, and Dun Bhragairform. the passage goes straight through, with parallel walls, and the same holds good of four other brochs not in the figure,-Coldoch, Etin's Hall, Yarhouse, and Levenswick. But in Nos. 1, 2, 3, and 4--Mousa, Clickemin, Harray, and Carloway, as well as in Glenelg and Torwood Brochs, which are not in the figure-while the outer part has this character, the inner part has curved walls, so as to form a quasi-oval chamber. In No. 8, Burray, the entrance seems to be exceptionally crooked. The position of the door in the brochs, as shown by the rebates, is retired 4, 6, or even 8 feet within the entrance. This seems an awkward arrangement, as complete shelter is thus afforded for several assailants within the doorway against all missiles launched from the top of the tower. The narrowness of the passage, however, must have seriously hampered an assault, and it is probable, in some instances at least, that there may have been a defence, through holes in the roof, from the gallery above. The expansion of the passage in rear of the door may also have been intended to afford greater space for the defence than for the assault, and this would be most important if there were no gallery immediately above, because then the only possible active defence must have been through holes in the door itself. The plans also show that some of the broch

entrances had one or two guard chambers, which, if intended for defence,

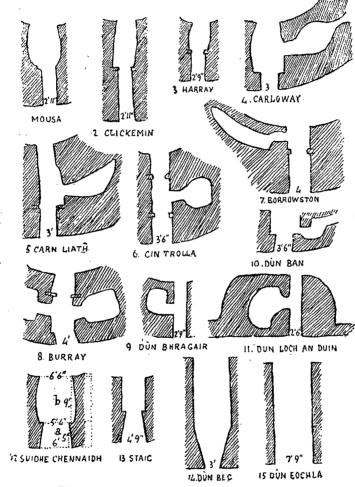


Fig 3. Ground Plans of Entrances to Brochs and Forts.

had the disadvantage for the occupants that they had no retreat if over-

powered. The only exception is No. 4, where the chamber communicates with a gallery.

The width of the entrances on the ground floor at the outside is marked on the plans. In these instances and in nine others in which the size is known—Glenelg, Loch Duich, Coldoch, Backies, Burwick, Dunbeath, Levenswick, Torwood, and Etin's Hall—it varies from 2 feet 11 inches to 4 feet. In the twenty brochs of which we possess any detailed information, six—Burray, Clickemin, Coldoch, Torwood, Glenelg, and Craig Cassil—have bar-holes behind the door, but Dr Joass states that they occur also in Morvich, Backies, Cill Pheadar, and several other less known Sutherlandshire brochs.

Nos. 10 and 11 are the only plans of entrances to Scottish stone forts which are not brochs that I have been able to find. They are from the paper by Captain Thomas, R.N., on the duns of the Outer Hebrides in the *Arch. Scotica*, vol. v. In the description it is not stated whether the walls of these entrances converge upwards or not. In No. 11 the entrance is specially strengthened, the rest of the wall, as indicated on the flanks in the plan, being of very inferior thickness.

The plans and descriptions of the entrances to the Irish stone forts in Lord Dunraven's work are not so detailed as could be wished. In general, they are represented as being from 6 to nearly 8 feet in width, and as going straight through the wall, with parallel sides, which converge upwards. In No. 15, Dun Eochla, the passage is 7 feet 9 inches wide, and passes straight through twenty feet of masonry. In general, the situation of the door is not indicated, but in No. 14 it may have been flush with the outside; and in No. 13 it is 6 feet within the doorway. Here an assailant must have been protected from all attack, except through openings in the door itself, as there is no gallery in the wall above.

A comparison with the entrance of Suidhe Chennaidh, No. 12, shows that it resembles the entrances of some brochs in the curvature of the walls in rear of the door, but that in the width of the passage it approximates more closely to the Irish fort entrances, and that in general form it is perhaps most like the entrance of Staic Fort, County Kerry (No. 13).

The circus-like arrangement in the interior has not been quite explained by excavation. The absence of structure points to an accidental origin, but it is impossible that so regular an appearance all round can be accidental. As there is no other known instance of the kind in Scotland, it is necessary to turn to the Irish forts to see if we can get any light on the subject. The walls of these forts, sometimes 20 feet or more in thickness, are described in Lord Dunraven's work as being solid from top to bottom, with the exception of a few galleries and chambers on the ground floor. Thus the top cannot be reached from the interior of the wall as in the brochs, and the ascent is usually accomplished by means of numerous short staircases, which lead to a series of two or three narrow platforms, one above the other. These platforms encircle the whole interior of the wall, and the staircases are taken out of the thickness of the walls which support the platforms, and are necessarily lateral, as the platforms are only 2 or 3 feet wide. It is natural to suppose that the platforms themselves would be taken out of the thickness of the wall, all the more so as the wall is generally double or triple,---that is to say, is composed of two or three walls in contact with, but not bound to, each other. By taking the platforms from the thickness of the wall, its apparently unnecessary width would be gradually diminished upwards till it formed a mere parapet to the upper platform; and this is the manner in which Dr Walter Bernard restored the Grianan of Aileach Fort, in Londonderry. It is doubtful, however, whether enough of the original remained to guide him to this mode of restoration. At all events, in the Irish forts which are still nearly perfect in parts, the solid wall, even when triple, appears to reach the top with its thickness undiminished, unless from batter, and the platforms are supported on additional masonry in rear of the wall. So, at least, I gather from the descriptions and plans, which are a little obscure. In one instance, however, there appears to be only one platform, and that is taken from the thickness of the wall, the remainder of the ascent being by staircases, The ascent to the top of also taken from the thickness of the wall. Staic is quite peculiar. There are no platforms, and the staircases resemble a series of St Andrew's crosses marked on the inner face of the wall, each cross extending from top to bottom. The construction is as if a thin

CAIRNS NEAR "SUIDHE CHENNAIDH," LOCH AWE. 127

triangle, with the base at the top of the wall, and the apex half-way down, were cut out, reversed, and placed against the wall below, so that the base of the triangle was now at the foot of the wall. Thus each set of stairs consists of four flights, two above and two below, and all meeting at a common landing-place half-way up. The two lower flights are supported by the projecting triangular slice of masonry, and the two upper ones are fashioned on the sides of the triangular space, which we have supposed to be cut out of the wall above. This is what I gather from Lord Dunraven's photographic view.

On the whole, it seems probable that the circus-like appearance in the interior of Suidhe Chennaidh represents, in a very ruined state, an arrangement for reaching the top of the original structure analogous to the more general modes of ascent met with in Irish stone forts; and as such an arrangement would be quite out of place and useless in a broch, it follows that Suidhe Chennaidh has in all probability been no broch.

CAIRNS NEAR SUIDHE CHENNAIDH.

A quarter of a mile to the north, on a gentle slope, at a somewhat higher level than the fort, but in full view of it, there is a very large but low cairn, the stones of which have apparently been much disturbed.

About half a mile from the fort on the low ground bordering Loch an Leoid there is a group of stones like a ruined cromlech. The largest stone is somewhat rectangular, pillar shaped, and 6 feet long. I was told that the stones were overturned, the ground dug, and gold ornaments found in the enclosed space, not many years ago.

At the northern edge of the summit of the knoll on which the fort stands there is a mound which from the south appears to be 6 feet high, and has a smooth, conical, artificial aspect, but on the north side is of a more irregular and natural character. A short, straight, half-buried row of large stones, or wall-foundation, comes directly up to it from the south, and is continued round its foot on the west as a smaller curved wall-foundation. On removing the turf from a considerable extent of the smooth southern face to a depth of about a foot, a quantity of

closely packed stones, varying from a few inches to a foot in length, were uncovered, and I supposed that I had disclosed a cairn; but I was surprised to find that the stones merely formed a layer, nowhere a foot thick, sharply defined from the hard earth below and from the rich peaty sod above, which was easily lifted from it and did not contain a single stone. This layer of stones was not continuous, but in large patches, with intervals between entirely free from stones. Taking into account the artificial appearance of the mound, on the south side at least, the peculiar layers of stones beneath the surface, the association of wallfoundations, which, apart from the mound, have no apparent *raison d'être*, it is difficult to resist the conclusion that the mound is artificial, although I failed to ascertain its meaning or purpose.

Ardvrecknish Cairn .-- Mr Macdonald pointed out this remarkable cairn, which is not marked on the Ordnance Map. It is situated at the extreme point of the little promontory of Ardvrecknish, on the south side of Lochawe, about three miles south-east of Suidhe Chennaidh. The promontory rises about 30 feet above the loch, and the cairn (fig. 4, plan and section) is a regular, slightly truncated, green, conical mound, 20 to 25 feet high, and 120 feet across, measured over the top. The burrowing of rabbits and rabbit-hunting have brought to the surface a quantity of fine earth and some good-sized stones, and the flat top feels hard and stony under foot. The base of the cairn for about a third of its circumference runs imperceptibly into the rough, steep, natural slope to the loch, but elsewhere is prolonged into a smoothened, gently-sloping zone, 30 feet wide, supported outside for about one-third of its circumference, and prevented from slipping down a rather steep descent of 20 feet landward by a retaining wall (CB), 3 or 4 feet high, which however was being taken down when I was there. At right angles to the landward end of the wall-not on the smooth zone, but running outwards from the wall-is a low, flat, rectangular cairn (C), 18 feet long, of smallish stones. Seventy feet further round and upon the smooth zone is a similar cairn (D) 9 feet long, and thirty feet further another (E), 15 feet long and 6 feet wide. In the rough ground beyond these two are fifteen to twenty small irregular heaps of stones or cairns (F). From their remarkable arrangement it seems probable that the smaller cairns (CDEF) are not

mere clearings from the neighbouring field, but bear some relation to the great one. It is much to be regretted that rabbit-hunting threatens

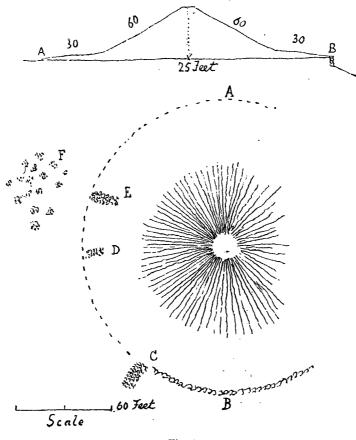


Fig. 4.

with gradual destruction this unusually perfect cairn, which shows no trace of having been opened.

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I

OTHER ARGYLESHIRE CAIRNS.

Cairn near Ballachulish House (fig. 5, plan and sections).—On the east side of the approach, a short distance from the public road, there is a peculiar mound, which is probably an ancient cairn. It rises from level ground to a height of 8 or 10 feet, and is of an irregularly oval form, stony on and near the flat top, which measures 10 by 7 feet, earthy on the slopes, as is shown by numerous rabbit-holes. East



Fig. 5.

wards it falls to a kind of tail, 15 feet long, 5 or 6 wide, and 3 or 4 high. The total dimensions measured over the top are about 54 by 30 feet, and it is enclosed by a low stony bank of rhomboidal form.

Carn an Rudha, Ballachulish.—At the north side of Ballachulish Ferry, close behind the hotel. It is dome shaped and of considerable size, although, as I am informed by the Rev. Dr Stewart, F.S.A.Sc., minister of the parish, many cartloads of stones have been removed from it, so that it is not now half the original size, as he remembers it. About fifteen years ago a large cist was exposed, which he found to contain nothing but a black sticky stuff which adhered like tar to the point of his stick. The cairn was closed over the cist, and has not been disturbed since.

An Carn Glas, Ballachulish.—In a field west of the hotel. It is a large mass, in a much disturbed and ruinous state, but, as far as Dr Stewart knows, has not been actually opened.

An Carn Glas, Corran.—Near the shore, south of Corran Inn. It is from 6 to 10 feet high, and 70 by 60 feet in diameter, and has been trenched through the middle.

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