

IV.

NOTICE OF EXCAVATIONS IN A BROCH AND ADJACENT TUMULI
NEAR LEVENWICK, IN THE PARISH OF DUNROSSNESS, ZETLAND.
By GILBERT GOUDIE, Esq., F.S.A. Scot.

The surface of the Zetland Islands is dotted as closely as perhaps any area of similar extent in the United Kingdom, with remains of prehistoric times. Chief of these are the brochs, and tumuli of various kinds which have repeatedly been brought under the notice of this Society.

Though the brochs are very numerous, and have been the subject of much discussion, only two of them, so far as I am aware, have been systematically explored—that in the Loch of Clickimin, near Lerwick, and the better known Castle of Mousa, the Mósey jarborg of the Sagas. Within a few miles distance of the latter, on a desolate rocky sea-cliff, near Levenwick, in the parish of Dunrossness, is situated another broch. Sir Robert Sibbald, in his survey of the islands, published in 1711, mentions *two* brochs in this place. His words are,—“South and south-west from Leven Week (a large mile distant), lie the ruins of two forts, built by the Picts, upon a rock, close by the sea.”

A large area adjacent is covered by a *debris* of broken stones of great size, strewn irregularly as if by the action of the sea, but the remains of only one distinct building can now be traced. It does not appear to have been noticed in any published account I have seen since the time of Sibbald, but it was visited in 1855 by Sir Henry Dryden, who has favoured me with a copy of his sketch of the ruin as it then appeared—a mere mound—and a ground plan shewing the tower and adjacent tumuli. (Both now submitted.) His measurements, though taken under disadvantages, agree closely with my own (see the annexed woodcut).

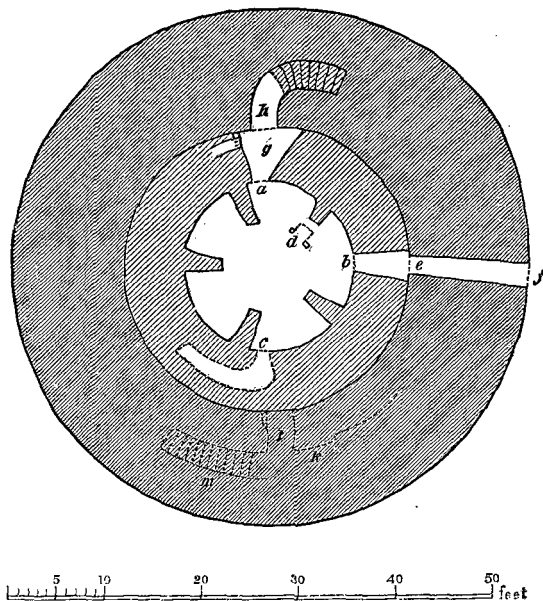
The appearance formerly presented by this broch was that of a mass of building material, 10 or 12 feet in height at the highest point, the course of the main circular wall being, however, distinctly discernible, especially on the north side, where a portion of the outside face was exposed. The wall, as shewn at this point, is of very solid masonry, composed of large stones, of nearly uniform size, seemingly unhewn, but built with great regularity, and without any trace of lime or cement. Around are remains, seeming, at first sight, to be massive circumvallations, not very clearly defined, and traces of those rude buildings, partly beneath the surface level, which are commonly attached to these northern brochs.

My attention had been directed to this ruin many years previously, but it was only during a short residence in the neighbourhood, in the summer of 1869, that I had an opportunity of attempting its exploration. Fortunately, the undertaking presented no serious difficulty. My object, in the first place, was merely to lay open the interior of the circle, by removing the mass of fallen stones which filled it. After a few days' labour, a large portion of the debris had been removed, and about three-fourths of the interior laid bare to the foundation, bringing to light the curious internal arrangements of the structure in a state of almost perfect preservation, except in so far as damaged, at the moment of demolition, by the sudden fall of material, and since then by the superincumbent pressure.

The accompanying ground plan shows the position of these internal arrangements, consisting of a second wall or "scarcement," about six feet in breadth, and on an average, of the same height, so far as entire, lining the interior of the main wall, and from it, five walls, at irregular distances apart, projecting towards the centre of the area. The length of these walls varies from $2\frac{1}{2}$ to $4\frac{1}{2}$ feet, leaving a clear central space, from 10 to 12 feet in diameter, between their opposite faces. On the north-east side of this space, three slabs set on edge, formed the back and two sides of what appeared to have been a fire-place (*d* in plan), with remains of ashes, or of soft dust-like sand. A portion of a quern was found among the debris, and fragments of bones, but no other remains.

It will be observed, that while these internal walls are of the same general character as in similar buildings elsewhere, they are here more regular, more systematic in design, and in better preservation than

perhaps in any other broch that has been explored. The approach to uniformity, particularly in breadth, and also in apparent height, of the scarcement or inner wall, is also noteworthy. In most other brochs it is either narrower, or of irregular breadth. At intervals, between the projecting walls, it is pierced by openings (three in number), showing the commencement of well built passages (*a, b, c*, in plan). It was impossible



Ground Plan of Broch of Levenwick, Mainland, Shetland.

at the time, to trace these passages to any distance inward, but there seems little doubt that they lead to small chambers, or store holes, and possibly also may communicate with other and larger chambers within the main walls, or with the upper galleries, which have now disappeared.

The main wall of the tower, as already indicated, describes a circle,

though not a perfect one. It is, as usual, a double wall, varying in combined breadth, from 12 to 16 feet, and has been intersected by a staircase, the lower portions of which will probably be brought to light by further excavation. Some years ago, a few steps of it were discernible on the top of the wall, on the south-west side, but these have now nearly disappeared.

The internal diameter of the building measures $29\frac{1}{2}$ to 30 feet (according to Sir Henry Dryden, $28\frac{1}{2}$), the eccentricity of the wall being on the outside, which bulges out to its greatest breadth (16 feet) on the north-east, where it probably encloses a chamber or chambers of considerable dimensions. The highest point of the wall standing measures about 15 feet from the foundation within.

The main entrance from the *outside* is not yet ascertained, but there is an opening to the *interior* on the south side (1), near the level of the surface of the inner circular wall and projections already described. This cannot, however, be the original entrance from without, as it is 6 or 8 feet above the level of the floor.

It may be a question whether or not these internal structures, above described, are of equal date with the main building. They are certainly of less solid masonry, but, on any supposition that we can form as to their use, would imply no necessity for such massiveness as characterises the main walls.

Adjacent to the broch are three or more long mounds, known by the common name of "The Giants' Graves." I had early wished to have these mounds opened, as much for the sake of the light they might possibly throw on the people who constructed the adjoining tower (assuming a possible connection from their juxtaposition), as for the interest of the mounds themselves. I revisited the spot in the summer of 1870, and endeavoured to make the beginning of an excavation, commencing with the mound nearest to the broch towards the south-west, which was both higher and longer than its neighbour further south; we started an opening on the north side, about 20 feet from the eastern extremity, and finding nothing, began a similar digging on the opposite or south side. The digging shewed the mound to be covered with earth to a depth of 6 or 8 inches, underneath being, first, a bed of small stones, apparently not burnt, about a foot in depth, and second, a layer of clay,

carefully prepared, about 6 inches thick. These successive layers were no sooner passed than the end of a stone wall, crossing the tumulus, appeared. The earth on both sides being carefully removed, a well-built wall, faced on both sides, was exposed. It measured about $6\frac{1}{2}$ feet in length by about equal height in the centre, its highest point, and 18 inches or so in thickness.

Further digging made it evident that further erections proceeded from this point towards the east, as in the case of the Cairns in Caithness, explored by Mr Anderson, and described in the Proceedings of this Society, vol. vii. part 2. A portion of a very rude wall was followed to the distance of a few feet in that direction, no trace of sepulture, or of any animal or manufactured remains being however discovered. I was under the necessity of closing up the digging at this point, reserving further excavation to a future time.

I have pointed out in the above, the facts connected with the partial excavation of what I believe to be very interesting remains of prehistoric antiquity. It would be very desirable that a more thorough exploration were made, so as to ascertain the precise character of the remains, and to do what may be necessary for their preservation. I purpose, on my next visit, to endeavour to have this done, when I hope to be able to report some interesting and satisfactory results.

Supplementary Notice.

I have the satisfaction to report, by way of supplement to the preceding Notice, that in July 1871, I resumed work at the broch near Levenwick, the opening of which has been described; and the result is such that the general character and construction of the building may now be determined.

After clearing away the heavier portion of the debris which remained within, after the former excavations, it appeared to be first in point of importance to ascertain the entrance, which I imagined, from the analogy of some other brochs, would be on the east side. As mentioned in my former communication, the openings of three passages were exposed in the interior area, one on the south, the others on the north and east sides respectively. By the gradual removal of the debris which blocked up the last of these (*b*), the passage was traced eastward, first, through the inner wall or

“scarcement,” and then through the main wall, to its opening on the outside of the building (*b, e, f*). The loose condition of the ruin in this quarter, consisting to a large extent of material previously displaced from other portions of the excavations, made the work one of considerable difficulty, and prevented so thorough a clearance at the time as was desirable, but the result, as it is, is important, inasmuch as the original entrance to the building was now ascertained and laid open.

Two of the lintels of the passage remain *in situ*, one over the opening (*b*) in the interior area in the exposed face of the “scarcement,” the other on the inner edge (*e*) of the main wall. The rest of the passage is uncovered, and the sides gradually diminish in height as they approach the outer edge of the circle (*f*), where little more than the mere foundations remain, the building having suffered great dilapidation at this point. The length of the passage, through the main wall and scarcement, is together about 19 or 20 feet. Its width at the opening in the inside of the main wall (*e*) is about 3 feet, and where it opens to the interior area (*b*) in the scarcement, only about 2 feet. The precise level of the floor at either point is difficult to determine, and hence the heights of the openings are not given.

The entrance having been ascertained, it was evident that the two remaining openings in the interior area above referred to, must lead either to the staircase communicating with the upper portions of the tower, or to chambers within the wall. The opening (*a*) on the north side was set to, and its course excavated, through the “scarcement,” where it widened into a large triangular space (*g*) in front of a doorway in the main wall, $5\frac{1}{2}$ feet high, and nearly 3 feet wide, covered with a heavy lintel stone. This doorway was found to have been carefully built up, and the removal of this obstruction, and the clearing of the opening beyond it, was attended with much difficulty and danger, from the dilapidated state of the building. The excavation was however proceeded with, and the opening proved eventually to be the entrance to the staircase (*h*), which, after the main entrance, was the next point of importance to be ascertained. The stair itself was followed until daylight appeared above, when operations ceased in that direction, and the building was carefully covered in. The width of the staircase is at first about 3 feet, from which it slightly diminishes. It is roofed in the usual way, by overlapping stones.

The building being so ruinous, the further tracing of the stair was impossible at this point, and for some distance further. But the result of a careful examination served to show that the stair as explored, proceeds upwards to a height from the floor of 8 or 10 feet, where it halts, and is continued by a level gallery along the heart of the building towards the south, where it terminates (*k*) on the east side of an open space between the walls, where a large window (*l*) opens to the interior. On the west side of this space (*m*), the stair again starts for the next gallery above, and 15 steps of it at this point have been laid bare.

I thus succeeded in ascertaining the entrance to the broch, and also, as I think, the true theory of its construction, which, while resembling that of Mousa, is somewhat different, inasmuch as the stair would appear to be not a continuously ascending one, but to lead first to one stage, and then to be continued by a gallery proceeding around on a level to a distance of about one half the circle, when it again ascends to a second, and probably similar gallery, and so on.

One other opening in the interior area, on the south side (*c*), has been partially cleared, but remains to be properly explored. As it is neither the entrance from without, nor the opening to the staircase, it probably leads to an isolated chamber or chambers within the great wall.

A quantity of animal bones and of decayed vegetable fibre was found, also a carefully worked stone, somewhat resembling a plummet, with a hole drilled in the one end.

As regards the outside of the building, a considerable quantity of the debris attached to and covering it was removed; but a good deal of labour will still be required satisfactorily to clear it away and excavate around it, including the rambling hut-like structures which remain on the west side, and the adjacent mounds which were referred to in the original notice. It is probable that these excavations might prove the most interesting part of the work.

Note.—The vegetable remains above mentioned were submitted by Dr John Alex. Smith to John Sadler, Esq., Botanical Demonstrator, Royal Botanic Gardens, from whom the following communication has been received:—

“ On examination, I find that the vegetable remains found in excavating the ruins of the Pictish Tower or Broch of Levenwick, in Shetland,

consist of two kinds of partially decayed timber. 1st, The light-coloured pieces are those of a species of pine. Under the microscope the characteristic discs on the woody tubes are distinctly seen in single rows along with large medullary rays. From the appearance of the whole structure, I have no hesitation in saying that the fragments belong to our Scots fir (*Pinus sylvestris*). 2d, The darker and more numerous pieces are evidently those of some hard-wooded tree, such as the alder or elm. The wood is not porous enough for oak, being deficient in dotted vessels or ducts."
