

III.

AN UNDERGROUND BUILDING AT DALE, HARRAY, ORKNEY.

By WILLIAM KIRKNESS, F.S.A.Scot.

At the west side of the farm of Dale, in Harray, Orkney, there is a considerable amount of hill land, and in 1926 it was decided to cultivate some two acres of this ground, which consists generally of heath, there being a low, flat, grassy mound within the area. When ploughing in the vicinity of the mound a causewayed space some 3 feet broad was encountered, the causeway being 6 inches deep and formed of quarried stones. When this structure was followed up and laid bare it proved to be a circular ring of a regular breadth of 3 feet and some 55 feet in external diameter, the mound mentioned above lying within and impinging on the west side of the ring.

As the causeway hindered the operations of the plough, the stones were carted away; and during the work of reclamation, Mr Leask, the farmer, found an unusually large, barbed and stemmed flint arrowhead (fig. 6). After this discovery, Mr Leask kept a sharp look out for other relics.

In December 1926 the plough struck another obstruction near the eastern side of the green mound. When it was exposed by the spade it proved to be a large flat slab of stone, measuring 5 feet in length, 2 feet in breadth, and 4 to 5 inches in thickness. Touching it another stone of similar dimensions was encountered, the two covering an area of 5 feet by 4 feet. Each of the stones had a semicircle 6 inches in diameter, cut on one side. As they lay exposed, the stones did not fit together, but on one being turned round they formed the complementary halves of a slab, with a large perforation near the centre.

At this place two stone relics were found. The first was a block measuring 9 inches long, 8 inches broad, and 5 inches thick, with a cup-shaped cavity 4 inches in diameter and 2 inches deep on the top, and two others, each measuring 3 inches in diameter and $1\frac{1}{2}$ inch deep, on one side. The second stone was of a less regular shape, and measured 9 inches long, $7\frac{1}{2}$ inches broad, and 2 inches deep; it was slightly rounded on its edges. On the top was a picked cavity similar in shape and size to those on the side of the other stone.

About the centre of the mound another stone was met with, measuring 3 feet 3 inches long, 3 feet wide, and 4 inches thick. On lifting this slab a cavity was seen underneath it. Mr Leask, having moved this and other stones of similar size and shape, found that they had

formed the roof of a pillared structure, which had been made by overlapping the stones in such a way that finally a single stone completed the building.

Information of the discovery was sent to Mr John Mooney, F.S.A.Scot., at whose request I visited the site on 29th December 1926. With the assistance of Mr Leask and his two sons, sufficient work was done to show the outline of the building (fig. 1); but, as I had to leave for Edinburgh the following day, it was decided that, while the work of cultivation would go on, the actual site of this structure would not be disturbed until the following August, when I would make a thorough examination.

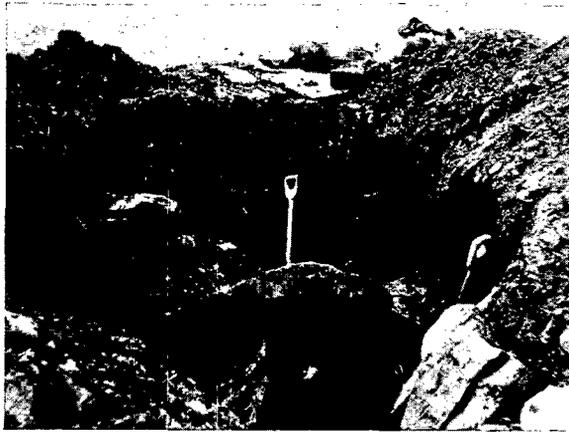


Fig. 1. Roof of Underground Structure at Dale, Harray.

In April 1927 Mr Alfred Wood of the Orkney Antiquarian Society informed me that, while ploughing the ground within the causewayed ring, about 10 yards north-east of the centre of the mound, Mr Leask had come on another stone which proved to be the cover of a long cist that had been entirely silted up. The cist was coffin-shaped, and measured 6 feet long, 2 feet 4 inches wide at the head and foot, and 3 feet wide at the shoulders, the upright stones forming the sides and ends being 1 foot high. Only small particles of very decomposed bones were found; but at the foot of the grave a stone of prismatic shape and triangular in section was discovered, with a flat oval, shallow cavity measuring $3\frac{1}{2}$ inches in length, 3 inches in breadth, and $\frac{3}{4}$ inch deep, picked out, on one side, and a similar circular cavity measuring 2 inches in diameter and $\frac{5}{8}$ inch deep on the other side. The stone measured 5 inches in length and $4\frac{3}{8}$ inches in thickness. About the same distance

from the centre of the mound, but in a south-westerly direction, Mr Leask came on a flagstone covering a hole in the ground which appeared to have been a grave. Small particles of bones were found in the earth, which completely filled the hollow under the stone.

When I arrived in August the roof slabs of the chamber had been removed, and I commenced excavating. The plan and photographs (figs. 2 to 4) show the character of the building. Apparently an irregularly shaped cavity, about 12 feet in length and 8½ feet in breadth,

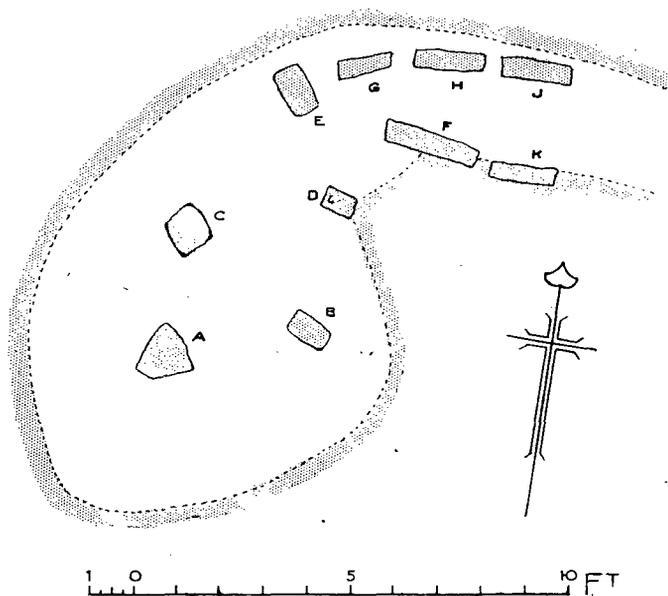


Fig. 2. Plan of Underground Structure at Dale, Harray.

had been dug into the clay, to a depth of about 2 feet, forming a sub-oval chamber.

Five pillars, varying in height from 2 feet 1 inch to 2 feet 5 inches, were arranged about 1 foot from the wall of the cavity. Each pillar supported the end of a lintel, the outer extremities of which rested on the clay wall; overlapping slabs had then been placed on the lintels, and the roof was thus completed. Fig. 3 shows a lintel in position resting on stone E and also the peculiar shape of the pillars. The main axis of the chamber lay nearly north and south, but the entrance passage turned sharply to the east—that is, from the inside. The passage had been lined on either side by stone slabs set on edge (fig. 4). Three of these

still remained on the northern side and two on the southern side, but it was evident that the latter had been slightly displaced. The flagstone with the perforation in the centre, which we have seen was found in halves, had originally formed part of the roof of the entrance passage at its outer end. The following are the heights of the pillar stones and the slabs on the sides of the entrance passage: A measures 1 foot 11½ inches; B, 2 feet 1 inch; C, 2 feet 5 inches; D, 2 feet 5 inches. To raise the height of the pillar stone E, a smaller stone, 9 inches



Fig. 3. View from the South of Underground Structure at Dale, Harray, with Roof removed.

thick, had been placed on the top, and in the same way the stones F and J in the passage had had stones 8 inches and 4 inches thick laid on them.

The only relic got inside the building was part of a rudely dressed, cylindrical stone of the type found in such large numbers in Shetland (centre of upper row, fig. 5).¹ It measured 10 inches long, 4 inches wide, and 3 inches thick. Two other relics were got near the inner edge of the causeway, the first, an oblong stone, 10½ inches long, 3½ inches broad, and 2½ inches thick, which had a broad groove picked out near one end, and the second, of irregular shape, 17 inches long and 8 inches wide at the widest part, and 2 to



Fig. 4. View of Entrance to Underground Structure at Dale, Harray, from the outer end.

¹ *Proc. Soc. Ant. Scot.*, vol. vii. pp. 118, 135.

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3 inches thick, also with a groove picked out round its narrower end (fig. 6).¹ At various places within the causeyed ring ten other objects of stone were also found; one of them resembles the last described relic inasmuch as it has a picked neck at the narrow end (right side of



Fig. 5. Stone Objects from Dale, Harray.

upper row, fig. 5). There is also part of a saddle quern and another stone with a picked cavity on the top.

In the *Statistical Account of Scotland*, vol. xvii. p. 237, the Rev. George Barry states: "Near Cliffdale, Shapinshay, some short time ago, when



Fig. 6. Flint Arrow-head and Grooved Stones from Dale, Harray.

workmen were digging for the foundation of a house they discovered a subterraneous building of a singular nature. It had been formed by digging the earth about 3 feet deep and erecting pillars of stones built one upon another to the height of 4 feet, to support a flat roof of broad stones or flags that covered the whole building, which was composed of two hexagons contiguous to one another, and their diameter about

¹ Two very similar stone objects, found in Ronaldshay, Shetland, are figured in *Archæologia*, vol. xxxiv. p. 122.

8 feet, and of a rectangle as large as both. As the whole fabric was considerably below ground, and no vestige whatever to be seen on the surface, it perhaps had been used as a place for concealing various articles of value for which it seemed well calculated. However that may be, there was found in it a gold ring of uncommon construction. The outside of that ring was broad and large, composed, as it were, of three cords twisted or plaited together; the inside was much narrower, and pretty well fitted for the use of the finger. No inscription whatever appeared on any part of it; and at the joining, instead of being soldered, it seemed to have been beaten together with a hammer."

In *Archæologia*, vol. xxxiv. p. 129, Captain F. W. L. Thomas, R.N., described and gave a plan of a similar structure discovered at Links of Pierowall, in Westray, in 1851. It consisted of a single subterranean chamber communicating with the surface by a short, steep passage. The chamber—the floor of which was 9 feet below the level of the surface—had been excavated through the clay, and, for the last 2 feet, through the rotten sandstone; hence the sides were not formed by stone walls but by the natural rock. One half of the roof was covered by two large flags. These were supported by short pillars, which were either single stones or square blocks piled upon each other to the requisite height, and flags were placed perpendicularly against the sides of the chamber to prop up the inner edges. One of these flags was of great size, for the length was 9 feet and the breadth about 6 feet; the second was nearly as large.

The roof on the opposite side of the chamber was commenced with oblong square blocks projecting from the wall to the pillars; flagstones were then placed on these. The roof was probably completed by a single large flag resting upon those before mentioned, and a trilith at the doorway or entrance. The floor of the passage rose very abruptly; the sides were rudely built, and about 2 feet 6 inches in height. The roof was formed of flags placed scalarwise, so that each succeeding stone increased the height in proportion to its thickness. Within this passage a hollowed stone or quern was found. The floor was covered with a layer of sand, but there were no indications of bones or ashes. There was no accumulation of stones or rubbish about the structure.

I am indebted to Major J. W. Cursiter, F.S.A.Scot., for the description of another of these pillared buildings similar to the three described in this paper. In 1909 he visited a site at Yensta, Tankerness, and found an underground building, the roof of which was supported by twelve pillars varying in height from 2 feet 4 inches to 2 feet 6 inches. Part of the wall had been cut out of the solid rock, as in the building at

Pierowall, and part of it was cut out of clay, as in the case of buildings at Dale and Shapinshay.

Captain Thomas, in the paper already referred to, gave particulars of the excavation of a pillared structure at Saverock, near Kirkwall, in 1848. The building was about 9 feet in diameter, the roof supported by five stone pillars 2 feet 4 inches to 3 feet high, and the walls being of built stone. Enormous quantities of the bones of domestic animals were found scattered about the place, also shell-fish. Three bone implements were got. One of these, formed apparently from the thigh-bone of an ox, was of a nearly triangular or spear-point shape, 6 inches long and 2 inches broad at the base, where it had been ground flat towards the end; the sides were also slightly bevelled by grinding or cutting. Upon the upper or convex side, half an inch from the base, were some deep notches, apparently for the reception of a lashing; and about the middle of the bone, on the same side, were a few shallower cuts. Another similar implement was got. A third, shorter and broader, 5 inches long and 2½ inches broad, was nearly flat, and was not ground to a point.

Two other pillared buildings in Orkney have recently been described before the Society—one at Grain,¹ St Ola, near Kirkwall, and another at Rennibister.² Mr John Mathieson, Corresponding Member of our Society, described in the *Proceedings*, vol. lix. p. 221, a pillared building near Durness, Sutherland, which in some respects resembled in its construction those already referred to.

My thanks are due to Mr William Traill, C.E., F.S.A.Scot., for his plan, and to Mr Thomas Kent for the photographs.

¹ *Proc. Soc. Ant. Scot.*, vol. li. p. 188.

² *Ibid.*, vol. lxi. p. 296.