

(1-24.)





archeedayy 232 With This Compense my drawing mude ut my cener n. 1541. Je Jan 5 1919 for Manufaller of Selays acceptance for the author. May 21, 1874. arrived at middly Lodge kensington It fampbelle Jenjone 28 Shar, 1874.



Written as the regrest of Mansplus of Islay for of Sual- Poritain and Reland; and Sent by the directors of the Institute the Mits Association as My 1872.

On a Hypogeum at Valaquie, Island of Uist. By Alex-ANDER A. CARMICHAEL. [With Plates 17, 18, and 19].

This underground structure was accidentally discovered ten years ago. A lad was ploughing in a sandy field, when one of the plough horses broke through a hole in the ground from which he struggled. The lad got help and enlarged the hole through which the horse's leg had thus penetrated, and found that it entered the roof of a building at a distance of three feet from the surface. This hole remained open, and it was possible to see through it the roof and part of the walls of a house nearly full of sand.

Beyond this, however, nothing was done till last year, to ascertain the nature of the structure. Meanwhile the broken end of the roof was wholly destroyed, and the slabs forming it carried away by persons in the neighbourhood, and converted

into lintels for their dwellings.

In April of last year (1871) I had the place cleared out. This occupied two men three days. Not much foreign matter was found among the drift-sand, of which the house was nearly full, till the floor of native sand was reached at ten feet from the ground surface. There, however, was found a large quantity of bones, teeth, and shells, chiefly the skulls and other bones of the deer, ox, swine, and sheep, and the shells of the limpet, mussel, cockle, and winkle, and a few broken scallop-shells.*

The flat side of this shell is frequently found among the bones in cists in these islands. Invariably there is a small square hole through each side of it. In Barra it is called

"diŭcadan," and in Uist "liŭcadaan."

^{*} Probably the concave scallop-shell was used as a drinking cup by the inmates of the dwelling, after they had extracted the original contents. In old Gaelic poetry the "shell" is often men'ioned as a drinking cup, and the modern phrase—"Cuir an t-slige chreachain mu'n cuairt"—"Send rou.d the

The use of the concave shell, as a domestic utensil, has not yet become obsolete in these parts. It is said that Biosmal Castle, which stands upon a tidal rock in Macneilton Bay, and which was the fortress residence of the old Macneills of Barra, was slated with shells, probably with the diŭcadan, for the clam or scallop-

shell-fish is plentiful in Barra.

The bulk of the bones and shells was in the middle of the house, opposite the entrance. A cart-load, at least, was thrown up from this particular spot, while the whole sand near the floor was so much charged with them, that the farmer upon whose land it is, carried away the excavated soil for manure. Partly mingled in this heap were found charcoal ashes, broken pottery, with rude devices thereon, the tine of a red-deer, with a hole through the thick end of it like a marlin-spike, red-deer antlers, and the upper half of a small quern. The bones were black, damp, and earthy when disturbed, but crumbled and bleached after a short exposure to the atmosphere. They adhered strongly to the tongue, indicating age. A few of the remaining bones and shells were taken away, and sent to London by Mr. Campbell of Islay. These were submitted to Professor Owen, who reports of them as follows:—

"The bones and teeth sent me by Mr. Campbell of Islay, are those of a bos var (kyloe) and of a sheep or lamb. Shells of Mytilus edulis and Peeten. Portions of wood perforated by Teredo (Gaelic giurain)."

(Signed) Rd. Owen.

British Museum, 24th October, 1871.

The ground plan of this structure is crescentic, and forms the seventh part of a circle. The walls run parallel to each other. The south or inner wall is eighteen feet, and the north or outer wall twenty-two feet long. The west end is at right angles to the sides, and is five feet seven inches wide, and the east end is curved and finished off with a short obtuse angle one foot seven inches long, coming back upon the inner wall.

In the centre of the building a stone lintel crosses from side

scallop-shell," is equivalent to "Pass the bottle." A repentant Gaelic convivialist says—

"Ochain o! a shlige chreachain, 'Sioma fear a th'ort an geall;

'S toil liom fhein thu shlige chreachain, Ga d' 's i'n telige chreach mi bh'ann."

Ah! well-a-day, thou scallop-shell,
Many a man delights in thee;
I too, love thee, thou scallop-shell,
Though thou art the shell that ruined me.

The point lies in the similarity of the name of the shell to the word for ruin.

to side, like a beam in a modern house. At a distance of four feet three inches another beam spans the walls. From this a dome roof is raised by overlapping stones, terminating in a cap, and giving the roof the appearance of a flattish beehive. The height from the floor to the middle of the centre beam, which is lower at the inner end, is five feet, to the next beam five feet nine inches, to the point of the dome seven feet, and to the surface of the ground ten feet. The walls are built of undressed moorstone, and gradually converge as they rise. The height of the house from the base of the wall to the spring of the arch is five feet, the breadth at the floor five feet eight inches, and at the curve of the dome four feet eight inches. The convergence is therefore one in ten for each side.

There are four recesses in the walls, one in the inner and three in the outer curve. Evidently these were used as receptacles by the inmates of the dwelling. They are about four feet from the floor, and of the following dimensions: No. I, $1-6 \times 1-8 \times 0$ -10; No. II, $2-2 \times 1-7 \times 0$ -10; No. III,

 $2-2 \times 2-2 \times 1-4$; and No. IV, $1-10 \times 1-10 \times 1-0$.

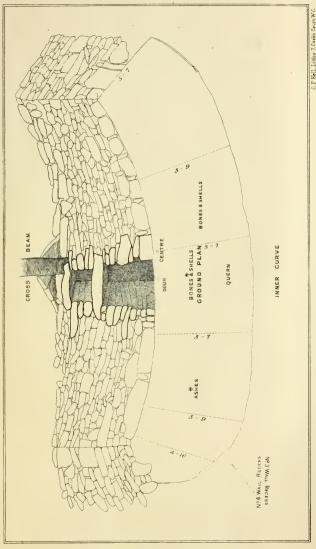
The entrance is upon the inner wall, near the middle. It is two feet ten inches high, two feet ten inches broad at the bottom, narrowing as it rises to two feet two inches at the top. The wall is two feet six inches thick, beyond which the passage is blocked up with sessile sand and loose stones.

From the curved end, a few inches above the floor, a triangular stone projects a foot or thereby, and close to this one or two other smaller stones. Possibly these stones were intended for sents: but I am more inclined to think that they are simply

accidental projections in the foundation.

This underground structure then is a regular curved gallery, five feet high, four feet eight inches wide above, five feet eight inches broad below, and twenty feet long. The form and position of it struck me as peculiar and different from any other hypogeum that has come under my notice. That which seems to me to resemble it most, and of which Captain Thomas, R.N., has sent me a tracing, is at Rait, Badenoch. It is on the property which belonged to James Macpherson, of "Ossian" celebrity, and was described by Macpherson's son-in-law, Sir David Brewster.

This house is in a long broad ridge of the field, about ninety yards from the shore, sixty from the level of the land, and twenty feet above the level of the sea. The vertical section of sand over the roof contains many large periwinkles, limpets, and other shells, that could not have been blown there by the wind; consequently this cannot be drift sand. I therefore suppose that a hollow pit was dug out of the face of the ridge, that



VÀLAQUIE, AT HYPOCEUM





OUTER CURVE. LONGITUDINAL SECTION OF VALAQUIE, HYPOGEUM

C.F. Kell, Litho Cooks Court, W.C.



NOIS 2 WALL RECESSES



this was lined and roofed with stone, and then that the sand was piled over the stone roof to the level of the surrounding ground for warmth and concealment. I think it is evident that the place was inhabited, from the traces of food and fire found therein.

The bones were splintered, probably to get at the marrow, and all the shells are of edible kinds. The quern would indicate some knowledge of agriculture, but animal food and shell fish seem to have been chiefly used. The absence of implements would indicate a low state of civilisation, and the natural dryness of the bones remote time. I have no opinion to advance regarding the probable age or builders of the structure which I have thus endeavoured to describe.

Mr. Campbell of Islay informed me that the Laplanders who bring their deer to the sea shore in the north of Norway, construct their dwellings thus:-Into the face of a sand bank, with a green sward above, and near the sea, a passage is cut. At the head of this passage a round pit is dug, about four feet deep and twelve wide. From the edge of this shallow circular sand pit, a conical frame-work of sticks and branches is raised. Over this frame-work, turf is laid, and sand is piled over the turf. Grass soon grows over the roof, and the house becomes a green mound. with a smoke-hole through the top, which in Gaelic is called fairleus, sometimes corrupted farlos. The fire is made on the middle of the floor, and the inmates of the house sleep upon deer skins with their heads to the sand wall and their feet towards the fire. They live upon animal food. They break the bones, suck the marrow, and then throw the bones to their dogs, by which they are gnawed. A stone lining, added to this Lapp dwelling, would make something like the subterranean structure previously described. And thus it is that the present habits of a far-away country may serve to illustrate those of the far away times of our own. According to Sir John Lubbock's "Prehistoric Times," the Australian manufactures flint flakes, the counterpart of which I found four weeks ago among disintegrated gneiss, fallen from the roof of a partly artificial recess in an immense subterranean natural cave in Pabbey, one of the southern isles of Barra.

Hu roof and Sectional Shetel





