REPORT ON THE EXCAVATION OF DUN BEAG, A BROCH NEAR STRUAN, SKYE. By J. GRAHAM CALLANDER, DIRECTOR OF THE NATIONAL MUSEUM.

Of the many ancient forts in the island of Skye none is better known than Dun Beag, near Struan (fig. 1). Occupying a conspicuous position little more than 200 yards from the road which passes along the west side of the island, it shows a fair height of a well-preserved wall and so In 1772 it was visited by attracts the attention of the traveller. Pennant, and in the following year by Dr Johnson. Locally it is said that Sir Walter Scott was taken to the site when he visited Dunvegan Castle in 1814, but as his Journal published in Lockhart's Life of Scott makes no reference to such a visit, it is very improbable that he saw it. Both Pennant and Johnson wrote a short description of the structure, and although their accounts are rather meagre, it is evident that the building was in a ruinous condition one hundred and fifty years ago. I was told by a local residenter that much damage was done to the building about the middle of the nineteenth century, when the lintels, which until that time still remained in position above the entrance passage, were removed.

In 1914, Countess Vincent Baillet de Latour, F.S.A. Scot., who had previously excavated the broch Dun an Iardhard, near Dunvegan, commenced the excavation of Dun Beag. During the course of the operations (which were only completed last year, 1920) the inner court as well as two small cells, a staircase, and the greater part of a gallery, all within the thickness of the wall, were cleared out; also, a section of the outer face of the wall on the southern arc, which was obscured by fallen stones, was laid bare. An interesting assortment of relics in stone, pottery, glass, and metal, was recovered, which have been presented to the National Museum. The thanks of the Society are due to the Countess Latour for this generous gift and for the admirable way in which she has conducted the investigations. About two hundred tons of stones and earth had to be removed, and, as all the soil was sifted through the fingers, extraordinary patience and perseverance were

required to complete the work. Previous to the excavation the inner court of the broch contained from 4 feet to 6 feet of stones and earth, and the two cells were practically full of similar debris; of the stair and gallery there were no indications, as they were completely covered with fallen material.

Dun Beag is built on the northern end of one of the small rocky eminences which are seen in such profusion in the north-western portions of Skye, and which furnish ideal sites for the numerous defensive

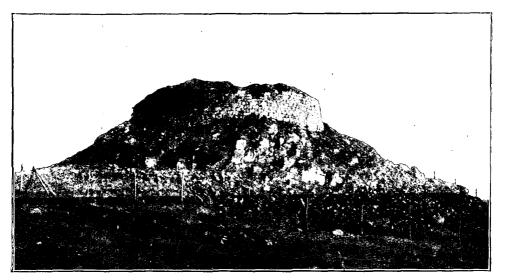
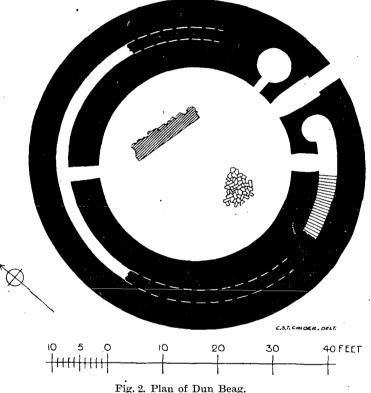


Fig. 1. View of Dun Beag from the north-west.

structures occurring in these parts. It lies at an elevation of some 200 feet above sea-level, about 400 yards east of the milestone set up 11¹/₄ miles from Dunvegan and 500 yards north-west of the school at Struan, on the hill-side facing the mouth of Loch Bracadale. It commands a magnificent view of this loch with its islands and deeply penetrating arms; on the south beyond a wide expanse of moorland rise the Red Hills, Blaven, and the beautiful rugged range of the Cuillins; to the north-west are seen the flat-topped summits of Healaval Mor and Healaval Beg, or Macleod's Tables as they are frequently called, while on the distant horizon across the Minch the southern islands of the Outer Hebrides appear in sight; to the north and east is swelling moorland. Some 470 yards to the north, at a higher elevation, on the summit of rocky plateau, is another fort, Dun Mhor, and on the low ground, some 700 yards to the west-south-west, at Knock Ullinish, is a ruined earth-

house. Immediately to the north-east are the foundations of the houses of an old croft, and in the vicinity extensive stretches of tumbled drystone dykes mark the boundaries of old stock enclosures.

Access to the broch is obtained from the southern extension of the plateau on which it stands, as for more than half its circumference, on



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the northern side, the wall is built quite near to the rocky edge, which generally is no more than 4 feet distant; the height of the part of the plateau occupied by the broch varies from about 10 feet on the east to over 20 feet on the west. The doorway faces slightly south of east and is placed just where the wall curves inwards from the edge of the plateau, a position which made it most difficult of attack and practically invulnerable. For a length of about 15 yards on the north-east the outer face of the wall has been torn down, but round the north and north-west it exhibits a fine stretch of drystone building still rising to 10 feet and 12 feet in height. A length of 9 feet on the west has collapsed as far

as the lowest course, but round the southern curve almost as far as the entrance it is from 3 feet to 5 feet high. As is usual in broch building, the wall shows a distinct batter on the exterior. The courses of building on the northern arc are built with the greatest regularity and average about 1 foot in height, but on the south side larger blocks measuring up to 22 inches in height have been used. The inner face of the wall has

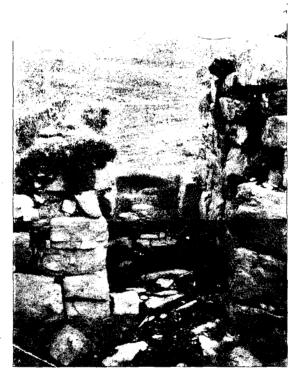


Fig. 3. Entrance, from the interior.

been greatly despoiled, and though the core, which contains the gallery walls, rises generally to a height of about 9 feet above the foundation inside, only three courses showing a height of 3 feet on the north, and four courses rising 1 foot higher on the south, remain in position.

The inner court of the broch forms a perfect circle, two cross diameters measuring 35 feet each, and for the greater part of its area the floor consists of an irregular rocky outcrop. At the level of the floor the thickness of the wall including the internal gallery varies from about 12 feet to about 13 feet 8 inches (fig. 2).

The entrance passage (fig. 3), which is 13 feet in length, is much vol. Lv.

dilapidated: on the north side its remaining height varies from 3 feet at the inner end to 1 foot 6 inches at the outside; on the south side for more than half its length nearest the interior it rises to a height of 5 feet 7 inches, but the outer jamb has been entirely removed. At the outside the passage is 3 feet wide, but at a distance of 4 feet 5 inches inwards are



Fig. 4. Entrance to Domical Cell.

checks on either side, 7 inches and 8 inches deep, increasing the width to 4 feet 3 inches. From this part it gradually decreases in width towards the inner end, where it measures 3 feet wide—the same as the outside. The passage is carefully paved throughout, there being a large slab at the entrance. Although it is probable that the door consisted of a large slab, there are no signs of bar-holes behind the checks.

Turning to the right on entering, at a distance of 3 feet from the entrance, on the level of the floor, is a low, lintelled opening 2 feet 4 inches in height and 1 foot 6 inches in breadth (fig. 4), leading through a passage, 2 feet 6 inches in length, into a domical cell within the wall

measuring 6 feet 6 inches by 6 feet on the floor. The walls of this chamber, which are reduced to a height of 3 feet on the south-east side and 6 feet on the north-west, converge towards the roof, and the floor as well as that of the passage leading into it is paved with slabs. Half of the outer lintel of the passage is broken away.

Some 7 feet from the opposite side of the main entrance is a doorway, 3 feet in width, and a passage, 4 feet 10 inches in length, which gives access to a gallery within the wall. The passage is about 3 feet 4 inches wide in the centre, but it contracts on the inside to the same width as on the outside, about 3 feet. Only the inner lintel remains in position, and it stands 5 feet 2 inches above the floor. The gallery is 3 feet 5 inches wide opposite the entrance; on the left it leads into a sub-oval chamber some 2 feet 4 inches from the entrance, and on the right to a stair that led to the upper galleries which no doubt once existed within the thickness of the wall. The oval cell measures 5 feet 9 inches across by 5 feet 3 inches at the floor level, and 5 feet 9 inches in height. The walls, as usual, converge towards the top, which is closed with large slabs. Two lintels, the inner ends of which rest on the remaining lintel over the entrance passage, are still in position, and another crosses the gallery just above the foot of the stair at a height of 6 feet from the floor. It should be noted that neither this entrance passage nor the cell were paved when excavated, though slabs have been laid down for the convenience of the excavators.

The surviving portion of the stair (fig. 5) consists of twenty-one low, narrow steps carefully laid, and rising to a height of about 8 feet in a horizonal distance of 11 feet, which gives an average height of about $4\frac{1}{2}$ inches, and an average width of tread of about 6 inches, to each step.

In the west-north-western sector of the wall, some 44 feet 8 inches from the main entrance, measured round the northern arc, is another entrance leading to a long, narrow gallery within the wall. This doorway is 2 feet 3 inches in width, but the jambs are reduced to a height of 2 feet 9 inches and 2 feet 6 inches, and the sill is 2 feet 5 inches above the foundation of the inside of the main wall, making it practically level with the rocky outcrop which occupies so much of the inner court of the broch. The passage leading into the gallery is 5 feet 6 inches long and about 3 feet 9 inches high on the inside, but possibly the last measurement may not show the original height because when it was excavated the lintels had disappeared and the inner part was rudely arched. This entrance had been blocked up long after the original occupation of the dun, and its presence was only discovered after part of the gallery had been cleared out. So carefully was it built up that at the time of my first visit, in the summer of 1914, I was unable to detect it from the inner

court, although the southern jamb had been laid bare, and, its presence being suspected, it was specially searched for. The gallery has only been partially cleared out, round the north-western arc, as further excavation was discontinued on the west and north in consequence of the danger of a further collapse through the outer face of the main wall having been destroyed at these parts. In all a total length of 48 feet was excavated,



Fig. 5. Remains of Stair.

21 feet to the south of the entrance, and 24 feet 3 inches to the north. The gallery varies from 2 feet to 2 feet 6 inches in width, and the walls are still from 3 feet to 4 feet 6 inches in height. The gallery probably extends southwards almost as far as the staircase and northwards nearly to the small cell on the north side of the main entrance, distances of at least 30 feet and 20 feet respectively, so that its total length is probably not far short of 100 feet.

In the course of clearing out the interior of the broch many stones were met with amongst the debris; but, with the exception of a rudely built wall, some 3 feet 6 inches in height, with only one face and that

towards the south-west, which was found crossing the north-eastern sector for a distance of 16 feet, no other structure which could be planned was met with. Many layers of red peat ash were found throughout the interior at various levels, with many fragments of rude, hand-made pottery, broken rotatory querns, and food refuse in the shape of occasional animal bones and shells. A regular network of drains occurred at various levels, and the hollow parts of the floor were brought up to the level of the outcrop of rock by a slab pavement on the southern half of the court. The space between the rock and the wall on the opposite side, which lay behind the divisional wall just mentioned, however, did not show any signs of having been paved, although it may have been so originally. The divisional wall and the drains seem to be of very late date, as the greater bulk of the pottery and nearly all the relics were found at the lowest level, some being found under the paving. The gallery within the wall was chokeful of soil, throughout which many animal bones were found.

Such was the condition of the broch when excavated; let us see how this compares with the older descriptions. Pennant says: "... at Struan, a beautiful Danish fort on the top of a rock, formed with most excellent masonry. The figure as usual circular. The diameter from outside to outside sixty feet, of the inside forty-two. Within are the vestiges of five apartments, one in the centre, four around: the walls are eighteen feet high, the entrance six feet high, covered with great stones."¹ He also gives an illustration of the building, which seems to give a view from the north or north-west.²

Johnson describes the dun when recording his visit to Ullinish, which lies little over a mile south-west of the broch, and within sight of it. He writes: "It was a circular enclosure about forty-two feet in diameter, walled round with loose stones, perhaps to a height of nine feet. The walls are very thick, diminishing a little towards the top, and though in these countries stone is not brought far, must have been raised with much labour. Within the great circle were several smaller rounds of wall, which formed distinct apartments. Its date and its use are unknown.... The entrance is covered with flat stones, and is narrow, because it was necessary that the stones, which lie over it, should reach from one wall to another; ... If it was ever roofed, it might have been a dwelling, but as there is no provision for water, it could not have been a fortress. . . I am inclined to suspect, that in lawless times. when the inhabitants of every mountain stole the cattle of their neighbour, these enclosures were used to secure the herds and the flocks in the night. When they were driven within the wall, they

¹ Journ., 2nd ed., Pt. II., A Voyage to the Hebrides, p. 336. ² Ibid., pl. xxxvi.

might be easily watched, and defended as long as should be needful; for the robbers durst not wait till the injured clan should find them in the morning.

"The interior enclosures, if the whole building were once a house, were the chambers of the chief inhabitants. If it were a place of security for cattle, they were probably the shelters of the keepers."¹

Johnson's book, following his attack on the genuineness of Macpherson's Ossian, gave great offence to many Highlanders, and one of them, the Rev. Donald M'Nicol, minister of Lismore, felt constrained to publish Remarks on Dr Samuel Johnson's Journey to the Hebrides, pointing out many of Johnson's inaccuracies and charging him with intentionally publishing misleading statements about the people, the country, the buildings, and even the weather. The reverend gentleman. fixes on the description of Dun Beag as an example of the learned doctor's falsehoods. He takes exception to the suggestions regarding the habits of the people who occupied it, and then goes on to show that the dimensions have been minimised (deliberately, no doubt). About these he says: "... the fact is that the former (the diameter) is seventy-two feet, and the latter (the height) about fifteen feet and upwards." Certainly the diameter given by Dr Johnson, which agrees with the internal diameter of 42 feet given by Pennant, is nearer the actual diameter, 35 feet, than that given by Mr M'Nicol, even allowing that he alludes to the external diameter. Pennant gives the latter measurement as 60 feet, which is correct, but this is 12 feet less than Mr M'Nicol's figure.

The three writers disagree about the height, Pennant stating it as 18 feet, Johnson as 9 feet, and M'Nicol as 15 feet or more. It seems probable that Pennant refers to the external height; if he is correct with this measurement, the wall has been reduced about 6 feet on the outer face and 2 or 3 feet at the core since his time. Taking the measurement given by Johnson as that of the inner wall, and supposing it was clear nearly to the floor level, we may consider him in comparative agreement with Pennant. The height given by M'Nicol is indefinite and need not be considered.

Regarding the internal arrangements, Pennant says that there were "vestiges of five apartments, one in the centre, four around," and Johnson that there were "several *rounds* of wall which formed distinct apartments."

From these descriptions it is quite evident that the apartments referred to must have been chambers built in the inner court and not those in the thickness of the wall, as Johnson distinctly says they were round. Chambers and stairs within the wall were no novelty to Pennant,

¹ Journey to the Western Islands.

as he had seen the brochs at Gleneig shortly before coming to Dun Beag, but we may be sure that if either the gallery or stair had been at all visible at the time of his visit, Johnson would certainly have had something to say about them. We may conclude that no trace of them was evident in 1772 or 1773. Pennant's statement that the doorway was 6 feet high is quite in accordance with the present height of the best preserved part of the wall on the southern side of the entrance passage. The structures within the broch described both by Pennant and Johnson were no doubt erected long after the main building was constructed, and it is evident that during the last hundred and fifty years they had been removed and new arrangements made.

That buildings so suitable for shelter or defence as a broch should be resorted to long after the original occupiers had passed away, is only to be expected, the later occupants making the structural alterations or additions necessary to their requirements. As in Dun Beag, evidence of occupation in late times may be seen in other Hebridean brochs, Dun an Iardhard, already referred to, and Dun an Sticir in North Uist,¹ being examples. In Dun Troddan, in Glenelg, which was described at our last meeting by Mr A. O. Curle, and which, with its neighour, Dun Telve, is the nearest mainland broch to Dun Beag, a different state of affairs has obtained, as there were no indications, either structural or in the relics discovered, that it had been occupied by a people other than the early broch dwellers. The reason for this is difficult to explain, unless it was that part of the structure had collapsed or had been overthrown in very early times.

A noticeable structural difference between the Hebridean brochs mentioned and the two mainland brochs is that the former have long galleries within the wall, in addition to domical cells and a stair entrance on the ground floor, while the latter, but for domical cells and the access to the stair, are built solid up to the level of the roofs of the domical cells, a feature seen in many brochs in the northeastern part of the country.

The absence of a scarcement in Dun Beag is explained by the reduction of the face of the inner wall to a level lower than that at which the scarcement is generally built.

A common feature in brochs is the presence of so-called guardchambers,² small oval cells in the thickness of the wall on one or both sides of the main entrance, access to which is obtained by a narrow doorway, opening on to the entrance passage. In Dun Beag

² The term "guard-chamber" seems in some cases to be a misnomer, as occasionally the doors are so low that they can be entered only by crawling on the hands and knees.

¹ Beveridge's North Uist, p. 139.

there are two cells, but that to the north of the entrance passage has its door, which is very low, facing the interior of the broch, while the cell on the south side of the entrance passage is placed opposite the foot of the stair, a common entrance sufficing for both.

During the course of the excavations a considerable number of relics, chiefly formed of stone, metal, and pottery were recovered. They include:—

Stone Objects.—Six small flint implements, consisting of two discoidal scrapers, two knives, and two flaked objects of indeterminate use; some thirty small fragments of the same material, and three large

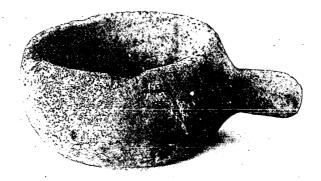


Fig. 6. Stone Cup found in Dun Beag. $(\frac{3}{5})$

pieces showing no secondary working; and a large outside flake from a nodule, with a thick patina on the inner fractured face.

About twenty hammer-stones, formed of elongated or flattened oval water-rolled stones, varying from $2\frac{1}{4}$ inches to $6\frac{1}{4}$ inches in length.

Two sharpening stones or whet-stones, showing both edges flattened by use: one a flat, oval pebble, $3\frac{5}{32}$ inches by $1\frac{31}{32}$ inch by $\frac{7}{8}$ inch; and the other a long thin stone with rounded ends, very slightly constricted in the middle, $3\frac{7}{16}$ inches by $1\frac{3}{16}$ inch by $\frac{11}{16}$ inch.

An elongated pebble of brown quartzite, nearly circular in section, $4\frac{3}{8}$ inches in length by $2\frac{1}{16}$ inches in greatest diameter, highly polished on opposite sides, and a thin, water-worn, irregular disc, $2\frac{5}{16}$ inches in width, with its upper side slightly hollowed and polished.

A roughly dressed discoidal stone of almost hexagonal shape, 3_{16}^{5} inches in greatest diameter and $\frac{1}{2}$ inch thick, probably used as a lid for a narrow-mouthed pot or vessel.

A circular disc of dark, micaceous stone, $3\frac{3}{8}$ inches in diameter and $\frac{15}{3\frac{5}{2}}$ inch thick, carefully ground on both faces and round its vertical edge.

Eight flat or sub-oval pebbles, the largest $2\frac{13}{16}$ inches long, with longitudinal or oblique grooves made by the pointed iron tool used with them to strike fire; one of them, $2\frac{3}{4}$ inches in length, has also seen considerable use as a hammer-stone, as it is abraded at both ends.

A carefully fashioned cup of whitish steatite (fig. 6), measuring $4\frac{1}{2}$ inches in diameter and $2\frac{1}{4}$ inches in height externally, with a flat,



Fig. 7. Small Quern-like Object found in Dun Beag. $(\frac{3}{5})$

imperforate handle, which broadens towards the extremity, projecting $1\frac{1}{8}$ inch from the side $\frac{3}{4}$ inch below the lip—the cavity is $3\frac{3}{8}$ inches in diameter and $1\frac{1}{2}$ inch in depth.

Ten whorls, several formed of steatite.

A globular ball, $1\frac{1}{2}$ inch in diameter, with a hole $\frac{1}{4}$ inch in diameter drilled $\frac{3}{4}$ inch into the stone, evidently the head of a pin of some sort (fig. 9, No. 1).

A pear-shaped pendant, formed of a concretion (fig. 9, No. 2), $1\frac{11}{32}$ inch long and $\frac{23}{32}$ inch in greatest diameter, with an oval perforation near the narrow end which is flattened, slightly imperfect on one side.

The complete upper stone of a rotatory quern, and ten other fragments of upper and lower stones of similar querns.

A roughly made circular stone resembling the upper stone of a miniature quern (fig. 7), 5 inches in diameter and $1\frac{13}{16}$ inch in thickness,

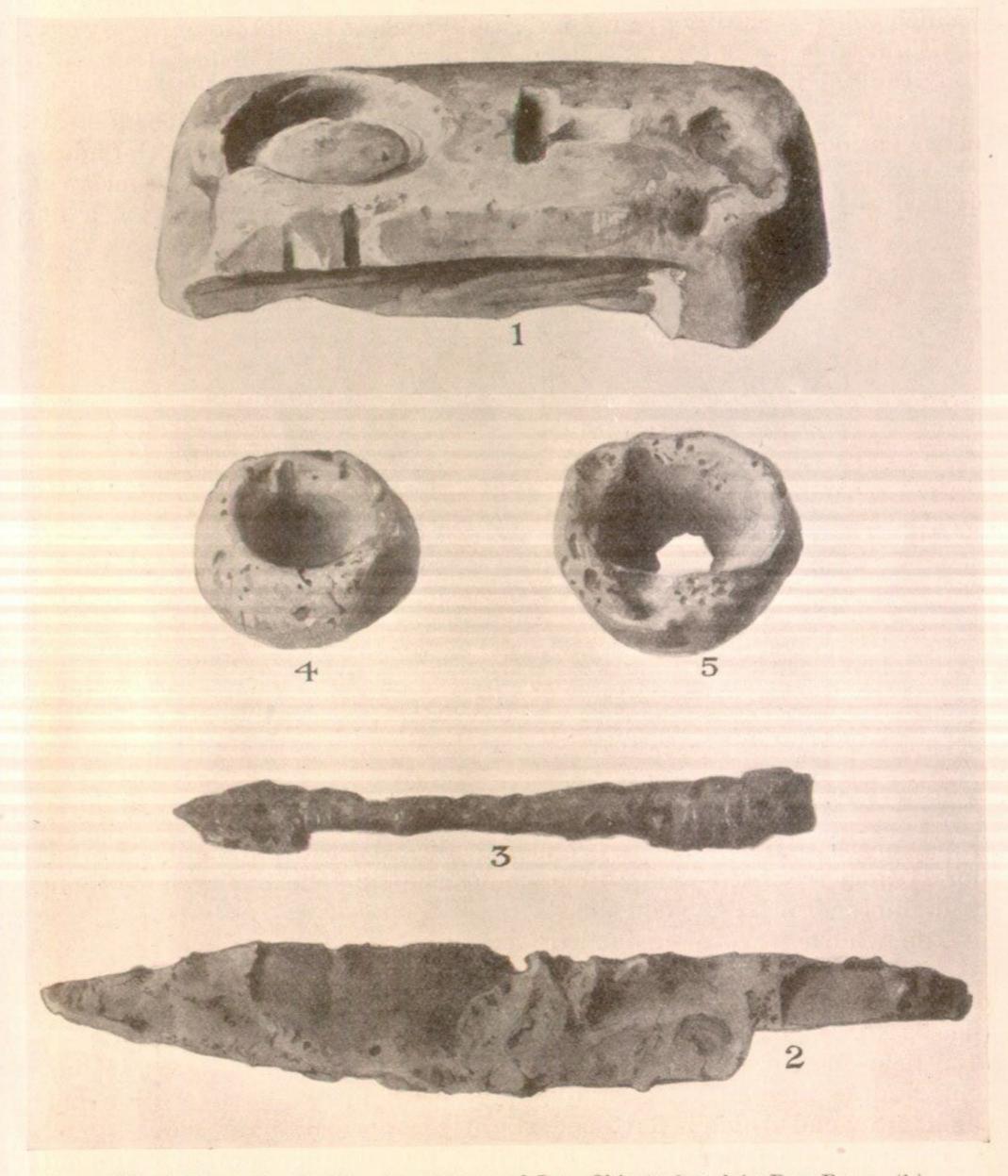


Fig. 8. Stone Mould, Clay Crucibles, and Iron Objects found in Dun Beag. (1.)

with a large central perforation countersunk from both sides and a shallow circular cavity on the upper side, apparently for a handle; the under side is irregular.

Three moulds: one made from part of the upper stone of a rotatory quern, $7\frac{13}{16}$ inches long by $4\frac{13}{16}$ inches broad, bearing on the under side a matrix for a bar, $4\frac{3}{4}$ inches by $\frac{1}{2}$ inch by $\frac{3}{8}$ inch; the fragment of another showing part of a matrix for a bar, $\frac{9}{10}$ inch broad and $\frac{3}{8}$ inch deep; and the third of steatite wanting one end and part of the lower side (fig. 8, No. 1)—on the top side is a circular matrix, $1\frac{1}{8}$ inch in diameter and $\frac{1}{4}$ inch deep, and a T-shaped hollow, $\frac{3}{4}$ inch broad and $\frac{1}{2}$ inch long, and on both edges and the under side part of a matrix for casting bars or ingots.

Several pieces of dark pumice, one showing narrow grooves formed by rubbing sharp-pointed objects, and others with hollows and flat surfaces formed by rubbing.

Gold Objects.-A flattened ring (fig. 9, No. 3), formed from a flat bar, $\frac{15}{16}$ inch in length, $\frac{3}{8}$ inch at greatest breadth, and $\frac{1}{16}$ inch in thickness, tapering towards rounded ends, and bent round so that the ends which are not soldered overlap—cross diameters measure $\frac{29}{39}$ inch and $\frac{25}{3}$ inch externally.

A minute curled strip of thin metal, $\frac{3}{16}$ inch long and $\frac{1}{64}$ inch broad. Bronze Objects.—A small button with flattened bi-conical head, $\frac{11}{32}$ inch in diameter, with a loop for attachment.

Two bronze buckles: the first is complete, but the bow and pin are turned back and fixed by corrosion of the hinge (fig. 9, No. 4)—the front part of the bow is ornamented with foliaceous and possibly zoomorphic designs, and the catch-plate for the strap, which is double, is decorated with a quatrefoil and retains in position the two rivets at the extreme end; the second, $\frac{3}{4}$ inch by $\frac{2}{32}$ inch, formed of thinnish wire, which is of rectangular shape with rounded corners, wants the tongue and hinge bar, but there are perforations for the ends of the latter on either side.

Two finely patinated rings of circular section, $1\frac{1}{4}$ inch and $1\frac{9}{32}$ inch in external diameter respectively.

An oval penannular ring of thin wire, 1 inch in greatest diameter, perhaps the movable head of a ring-headed pin.

A ring of thin wire, $\frac{23}{32}$ inch in diameter, slightly twisted.

2

A thin flat ring, $\frac{7}{16}$ inch in diameter and $\frac{9}{32}$ inch in breadth.

The segment of a ring-like object of oval section, $1\frac{5}{32}$ inch long, the ends rebated so as to overlap the similar terminations of the adjoining segments and showing the rivet for attachment still in position at one end and a rivet hole in the other end (fig. 9, No. 5).

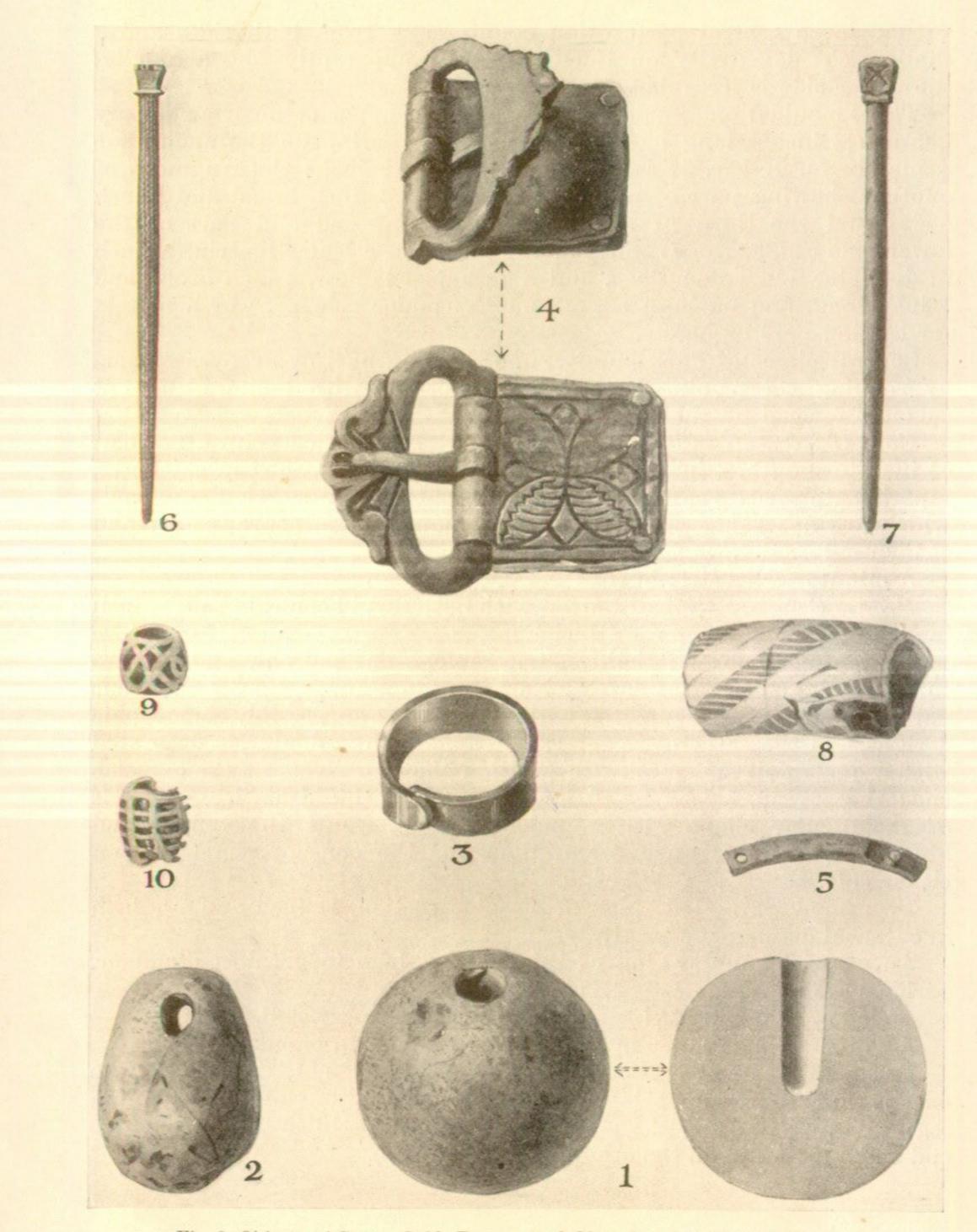


Fig. 9. Objects of Stone, Gold. Bronze, and Glass found in Dun Beag. (1.)

Four pins, two of which are complete: the first, $2\frac{3}{4}$ inches in length, has a stem of hammered octagonal section with a head of inverted, truncated pyramidal form and a slight circular moulding below—the narrow panels of the stem have a wavy line engraved along their entire length, and the top is notched round the edges (fig. 9, No. 6); the second, 3 inches long, wants the head, but it seems to have been of the same type as the first, as the stem is similarly ornamented; the third, $2\frac{29}{342}$ inches long, has a somewhat similar head to the first, only it is broader and thinner and bears an incised cross (saltire) on the two broad sides, and its stem is round and plain (fig. 9, No. 7); the fourth, which probably resembled the third, is broken at both ends, the length of the remaining part being $2\frac{1}{16}$ inches.

A rounded bar, $1\frac{5}{8}$ inch long, tapering towards one end and hooked at the other, is probably the pin of a brooch.

Part of a heavy flattened slotted object ornamented on the outside with longitudinal engraved lines, $\frac{13}{16}$ inch long and $\frac{11}{32}$ inch broad.

A coil of thin wire, $\frac{9}{16}$ inch in length and $\frac{1}{8}$ inch in diameter.

The ring of a flat shoulder brooch, $2\frac{1}{4}$ inches in diameter, ornamented with a rouletted zigzag design.

A. narrow, flat, thin ring of copper, $2\frac{1}{4}$ inches in diameter, and a somewhat similar ring, $2\frac{7}{16}$ inches in diameter, lapped over on both edges, both evidently of recent date.

Lead Object.—A small piece of folded sheet lead measuring $1\frac{13}{16}$ inch in length.

Iron Objects.—Part of a bolt, $6\frac{9}{10}$ inches in length, and about $\frac{3}{4}$ inch square, with a round head.

Portion of a tapering ferrule for the butt end of the shaft of some weapon or implement, $3\frac{3}{16}$ inches in length.

A tanged knife, $4\frac{11}{16}$ inches in length, with a pointed blade, curved back, and shoulder on the opposite side at the root of the tang (fig. 8, No. 2).

A spear-like object, 3_{32}° inches long, with small spatulate head, probably the head of a fish spear (fig. 8, No. 3).

Two small wire rings, $\frac{9}{16}$ inch and $\frac{3}{8}$ inch in diameter, probably links of chain mail, the joint in the larger overlapped and riveted.

Fragments of frothy iron slag.

Glass Objects.—Segment of an armlet of plano-convex section, measuring $1\frac{1}{2}$ inch in length and $\frac{11}{16}$ inch in greatest diameter, formed of translucent green glass, coated on the exterior with a layer of opaque milky-white enamel, and showing three narrow inlaid bands of clear yellow vitreous paste forming a ladder-like design running obliquely across the exterior (fig. 9, No. 8).

A bead of translucent dark-blue glass with wavy streaks of white enamel encircling the exterior, $\frac{3}{8}$ inch long and $\frac{3}{8}$ inch in diameter, with a perforation quite large in proportion to the size of the bead (fig. 9, No. 9).

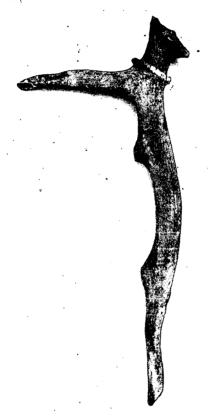


Fig. 10. Deer-Horn Pick found in Dun Beag. $(\frac{1}{5})$

About half of a cylindrical bead of translucent milky-blue glass with threads of opaque yellow enamel laid on and projecting from the surface so as to form a net-like pattern, $\frac{1}{8}$ inch in length and $\frac{3}{8}$ inch in diameter (fig. 9, No. 10).

A small cylindrical bead of opaque greyish-white vitreous paste, $\frac{5}{32}$ inch in length and $\frac{1}{4}$ inch in diameter.

A globular bead of opaque milky glass, $\frac{13}{32}$ inch in diameter.

An oval bead of opaque black glass slightly constricted in the middle, $\frac{17}{32}$ inch in length and $\frac{9}{32}$ inch in diameter.

A globular bead of black glass, $\frac{1}{2}$ inch in diameter.

Two small beads of translucent blue glass: one a slightly flattened sphere, $\frac{1}{4}$ inch in diameter; and the other with flat sides, $\frac{7}{32}$ inch in diameter.

A faceted bead of clear white glass, $\frac{7}{16}$ inch in diameter.

Bone and Horn Objects.—A wedgeshaped borer of bone, $2\frac{13}{16}$ inches in length, and a pick formed out of the

antler of a red deer (fig. 10), 22 inches long, all the tines cut off except the brow tine, which, measuring 7 inches in length, formed the picking part of the tool.

Pottery.—A whorl formed from a shard of hand-made pottery, roughly dressed to circular shape, $1\frac{7}{8}$ inch in diameter, with a central perforation countersunk from both sides, and a disc of similar material, $1\frac{5}{16}$ inch in diameter, ground round the circumference but not perforated—probably a whorl partly fashioned.

A complete crucible and portions of two others: the first (fig. 8, No. 4)

a small cup of red ware, $1\frac{1}{8}$ inch in diameter and $\frac{10}{32}$ inch in height, the cavity round and shallow; the second (fig. 8, No. 5) of darker clay, $1\frac{5}{16}$ inch in diameter, of conical shape but wanting the base; the third is a fragment of the wall of a somewhat similar vessel, but of more globular shape.

Many fragments of vessels of hand-made pottery.

Coins.—A silver penny of Henry II. and another of Edward I., Canterbury mint; a billon plack (eightpenny piece Scots) of James VI.; an Irish halfpenny of George II.; and a halfpenny of George III.

These finds include a variety of objects that are at once recognisable as typical broch relics. The grooved pebbles, used as strike-a-lights, have been found in many brochs including Dun an Iardhard, near Dunvegan, some 12 miles distant, and in some of the earth-houses in the neighbourhood of Vallay, in North Uist. Carefully made circular discs of stone, finely polished, similar to the Dun Beag example, have been found in half a dozen brochs, in the Lochspouts crannog in Ayrshire, and in the fort on Traprain Law, where four have already been recovered from levels occupied during the early centuries of this era. Stone cups have also been discovered in several brochs, Dun Telve, in Glenelg, alone, having yielded three, which, like the one found in Dun Beag, had imperforate handles. None, so far, have been found on Traprain Law, possibly because the finer drinking-vessels of Roman manufacture were easily obtained and extensively used, but one was found in Dunagoil, in Bute, a fort which, however, is believed to have been built and occupied in pre-Roman times.

The complete crucible is almost identical in form with one found in the group of earth-houses at Foshigarry, North Uist, but it is of much ruder form and texture than those found at Traprain. Another relic, examples of which have been found on the lowest level of the latter site dating probably to about 100 A.D., is the armlet of glass covered with vitreous paste of different colours. The fragment from the Skye broch is slightly heavier in make than those from Traprain.

These objects indicate an occupation of the broch in the early centuries of this era.

In the ornamented bronze buckle and gold ring we have to deal with types of relics of a race, different from the original native broch dwellers, which appeared in Scotland in much later times The character of the ornamentation on the buckle is more Scandinavian than Celtic, and rings of gold fashioned from flat strips of metal, bent round and unsoldered, have often been found with Viking remains. The discovery of these objects suggests the presence of these rovers, whose occupation of the broch may or may not have been prolonged.

Further, the discovery of coins ranging from the twelfth to the eighteenth century shows that the building was visited, if not occupied, right down through historic times.

Considerable quantities of bones of cattle and sheep were found in Dun Beag, especially among the debris which filled the gallery. These could not have been placed there during the early occupation of the broch, as the gallery would not have been used as a kitchen-midden by the regular broch dwellers. But a small cake or conglomeration of small seeds, measuring about 1 inch square and about $\frac{3}{2}$ inch thick, which was found very close to the rocky floor of the building, shows one of the cereals which was used as food probably by the early inhabitants. By the kind permission of Professor Bayley Balfour, Regius Keeper of the Botanic Garden, Edinburgh, this has been examined by Miss M. Y. Orr, who reports: "Only one kind of seed is represented, which on investigation proved to be the caryopsis of a grass. These 'seeds' are so completely carbonised that a detailed examination was impossible; but after careful comparison with a large number of grasses and cereals, I am of the opinion that they are the caryopses of either Oats (AVENA) or Rye They are somewhat small, but varieties with small grains (SECALE). -such as AVENA STRIGOSA—were in cultivation in the northern parts of Scotland in former times."

When the excavation of the broch was commenced it was hoped that distinct layers of occupation would be encountered, especially near the floor, but very little digging showed that there had been a great mixing of levels. We have seen that secondary structures had been erected and remodelled later in the broch in comparatively recent times. Each reconstruction entailed the sweeping away of previous secondary buildings, and soil which at one time lay on the floor was raised to a higher level. This was proved by the presence of ash and shards in the centre of the divisional wall of late date erected inside the building. The gold ring and the bronze pins were found about 3 feet from the bottom amongst soil which must have been turned over since 1773, the time of Johnson's visit; but the fragment of the glass armlet, the two variegated beads, the stone cup, and indeed the great bulk of the other relics, were found at the lowest levels.

Though no built hearths were discovered, there were numerous deposits of red peat ash, and the presence of iron slag at various levels suggests the probability of iron smelting within the broch, perhaps at no very distant date, although there was no evidence to indicate the probable period. Possibly the larger of the stone moulds may have been connected with the smelting of iron, but it seems more likely that the smallest mould and the crucibles were used in the manufacture of objects of bronze. As in the case of the slag, fragments of pottery were found throughout the mass of debris, and consequently it is difficult to assess their date. Although great quantities of potsherds have been found on anciently inhabited Hebridean sites, little is known regarding their chronology. The difficulty of the subject is great because so little scientific excavation or even collecting has been carried out in these islands, and also because hand-made pottery continued to be made there until the middle of the nineteenth century. Narrow-mouthed globular pots of various sizes were in general use, not only for containing and for cooking food but for churning, during many centuries after wheel-turned, glazed ware was being used in many parts of Scotland.

Many of the shards found in Dun Beag represented craggans of comparatively recent date, and some pieces which had particles of iron slag adhering to their lower parts doubtless belonged to the time when iron was being smelted.

On the other hand, a large number of the pieces, especially some of those showing ornamental patterns, probably belonged to the period of the stone cup, glass armlet, strike-a-lights, and polished stone disc. Much of this pottery is of fine texture, quite devoid of the roughly crushed fragments of stone seen in the urns of the Bronze Age. Some of the vessels were small with thin, curved walls of well-burnt clay, but others were of coarse, thick ware. Everted rims preponderate, but several pieces indicate that the narrow lip had a slight inward curve. Some of the basal fragments show that while generally the vessels of which they formed parts were of globular form, they were flattened on the bottom. the inner side occasionally bearing a number of impressions formed by the points of the fingers while pressing it into shape. Two or three which probably had more vertical walls have a slight projection at the base, notched at intervals. The colour of the pottery is as varied as the quality of the clay: some of it is quite red, but most of it is of various shades of brown, stone colour, and dark grey. Much of it is incrusted with soot.

Of the many vessels represented, only in one case is enough left to give an indication of the complete shape and size. It had been a small pot of well-burnt, hard ware of dark colour, with a thin vertical wall and a flat bottom, the external diameter of the mouth and base working out to about $6\frac{1}{4}$ inches, the height $3\frac{3}{4}$ inches, and the thickness of the wall and base $\frac{3}{16}$ inch. It is an interesting vessel of a type which I have never met with in Scottish hand-made pottery.

Much of the ornamentation consisted of applied patterns, the favourite motive being an encircling band of compressed zigzags. One vessel had been encircled by a small raised moulding with oblique lines

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suggestive of a cord pattern, and another by a transverse row of oval or circular rings, about $\frac{5}{8}$ or $\frac{3}{4}$ inch in diameter, in relief. A small flattened globular pot of a good quality of ware was surrounded by a narrow band of oblique lines between two marginal lines, all incised. Several pieces are ornamented with incised geometric patterns, and one bears a band of alternate oblique hollows and ridges formed by pinching the clay between the nails of the forefinger and thumb. One piece shows a design of very slight, flat curved ridges, with alternate hollows of similar width, as if they had been made with some broadtoothed instrument, and two fragments have the surface rudely scored as if it had been carelessly wiped by some contrivance like the ends of a small bunch of thin straws or twigs, or a very coarse fabric. Ι think there is little doubt that many of these ornamental motives go back to the early part of the Christian era. Incised geometric designs belong to many prehistoric epochs, but the range of date of the peculiar applied ornamentation is certainly more limited. The protruding rings and the raised zigzag bands have all been seen on pottery found in some of the earth-houses in North Uist which seem to date to the above-mentioned time.

There is also great difficulty in assigning a date to the numerous ornamental pins of bronze which have been found in considerable numbers on and near ancient habitations in the western islands. Four of these objects, as we have seen, were recovered from Dun Beag, but they were found amongst disturbed soil within 3 feet of the gold ring. Pins were until quite late times in general use among the men as well as among the women in the Highlands for fixing their dress, and if any progress is to be made in dating them, it will only be by carefully scrutinising the layers in which they occur and correlating them with other contemporary objects of which the period is known.

The almost entire absence of objects of bone or deer-horn is noticeable, as these materials were largely used for a variety of purposes by the inhabitants of some of the brochs in Caithness, and the earthhouses of the Outer Hebrides. Bone and deer-horn are both represented by a solitary relic—the former by a rather poor borer, and the latter by a pick, formed from a complete antler.

A rather disconcerting discovery was made in the form of several hundred globular glass beads of various shades of blue, amber, red, green, transparent and opaque white colour, also some oval opaque yellow beads. The red beads were made of a yellow glass and were only flashed with the former colour. These ornaments were not the least decayed on the outside, and though many of them were of very crude manufacture, with irregularly shaped holes and occasionally

showing two stuck together, they cannot be considered prehistoric relics. They were all found close to the base of the wall—I saw several picked up close to a whorl—which led to the suggestion that they might have been lost by girls playing about the dun, and have trickled down through the interstices between the stones. This solution of the problem is not satisfactory, because before the excavations were commenced the top of the building was quite covered by soil. Strangers had no opportunity of "salting" the site, as the broch was enclosed by a fence which it was impossible to get through, and besides, as these objects were found all round the interior of the building, they could only have been introduced as the excavations progressed. The only other persons who could have placed them in the broch were the two workmen, and, as they were old trusted servants who had nothing to gain by such conduct, one can hardly believe that it was done by them.