

I.

EXCAVATIONS AT DUNADD AND AT OTHER SITES ON THE POLTALLOCH ESTATES, ARGYLL. BY J. HEWAT CRAW, SECRETARY.

I. EXCAVATIONS AT DUNADD.

The fort of Dunadd in Mid-Argyll crowns the top of an isolated rocky hill, which rises for 160 feet on the left bank of the river Add, and looks down on the flat expanse of Crinan Moss. In addition to its isolation and its defensive character the hill occupies an important strategic position. It stands in the strath which lies between the head of Loch Gilp and Crinan Bay, and which is to-day traversed by the Crinan Canal; while to the north-east lies the Kilmartin valley, leading by way of Loch Awe to the centre of the Highlands. Two thousand years before the dawn of history the importance of the district was recognised, as is shown by the numerous and striking monuments of the early Bronze Age which are thickly scattered throughout the locality.

There can be little doubt that in Dunadd we have the Duinatt of early mediæval times, an important stronghold of Dalriadic Scotland. Its early history has already been fully discussed in our *Proceedings*.¹ It was thus a place of high importance from the beginning of the sixth till the middle of the ninth century, with an earlier legendary history extending to the beginning of the Christian era.

¹ Vol. xiii. p. 28, 1878-9, "Dunadd, Glassary, Argyllshire, the Place of Inauguration of the Dalriadic Kings," by Captain F. W. L. Thomas, R.N.; vol. xxxviii. p. 224, 1903-4, "The Forts of Kilmartin, Kilmichael Glassary, and North Knapdale," by David Christison, M.D.; vol. xxxix. p. 292, 1904-5, "Excavations of Forts on the Poltalloch Estate, Argyll," by David Christison, M.D. See also Skene's *Celtic Scotland*, vol. i. pp. 229, 264, and 290.

On a flat rock-surface near the top of the hill are three rock-carvings, which are regarded as having a connection with the inauguration of the kings of Dalriada. These consist of a stone basin, the imprint of a human foot, and between these a fine outlined figure of a boar¹—no modern type, but the true rooter of the woods—treated in a manner distinctively Celtic (fig. 1).

In February 1904 Dr Christison read a paper to our Society on the forts in this district of Argyll; and in the beginning of May of that year the Society, with the consent of Colonel Malcolm, began the



Fig. 1. Rock-carving of Boar at Dunadd. (½.)

excavation of sites on the Poltalloch estates. The work continued till the end of January 1905; during this time four sites were examined. The chief aim was to find the plan of construction on these sites; but although no sifting of soil seems to have been done, a considerable number of relics was found. These, by the gift of Colonel Malcolm, now form part of the national collection in our Museum.

The extent of the work done at that time at Dunadd is not quite clear. The lines of all the walls were certainly followed, and enough of the interior was turned over to warrant the statement that no foundations of buildings existed there. From the account given in the

¹ A case to protect this figure has recently been placed in position by H.M. Office of Works.

Proceedings, supplemented by facts locally ascertained, and from the result of the work carried out last summer, I have little doubt that the soil of a large part of the interior was turned over. Certainly no spot can now be examined with the assurance that it has not already been trenched.¹

Dunadd fort measures some 220 feet in diameter (see Plan, fig. 2).² It is divided on account of the configuration of the hill into five unequal parts by walls some 10 or 12 feet in thickness. Division A occupies the summit of the hill; B, smaller in area, lies on lower ground to the north-east; within it is the rock which bears the carvings above mentioned. Division C lies still lower and further to the north-east; it is the smallest of the divisions of the fort, and is commanded by an undefended rocky knoll to the north-east. Division D covers a much larger area, and lies at the foot of a precipitous rock to the east of A. The remaining portion of the fort, largest in size and occupying the lowest ground at the east side, has been described by Dr Christison as E and F, but no subdividing wall of any strength seems to have been found. The well of the fort lies at the north end of this division, and the entrance passes through a natural cleft at the south end. Traces of the foundations of buildings of a later occupation can be seen in this part, which has been used as a garden within living memory.

Excavation was carried on at Dunadd this summer by Sir Ian Malcolm of Poltalloch, K.C.M.G., and the Society of Antiquaries of Scotland, when I was in charge of operations. Work was begun on 21st May, and was continued when weather permitted till 9th July. In all, twenty-four days were spent at the fort with two men; an additional man was employed for a few days at the beginning.

Work was begun at the south-west point of Division A. Here a triangular area measuring 31 feet by 25 feet across the base was marked off as shown at X on the plan. The turf was removed and the soil was

¹ In 1904-5 work was carried on for nine months; the number of men engaged is not stated. The first site, Ardifuar, occupied five and a half weeks, the whole interior of the fort being turned over. The time occupied at the vitrified fort of Duntroon and at the fort of Druim an Duin is not mentioned. The former "was excavated everywhere down to the rock"; the latter is small in extent, and seems also to have been thoroughly examined. Judging from the time spent at Ardifuar, these two sites probably gave work till some time in October, leaving some fourteen weeks for the work at Dunadd. This estimate is borne out by the evidence of one of our diggers last summer, Dugald M'Fadyen, who helped with the work in 1904 for about a fortnight before leaving for other employment at Martinmas. Digging had been going on for two or three weeks before he started; four men were employed, and the work was that of following the line of the walls. Even if we make allowance for wet weather during the winter months (Mr Melville informs me that the rainfall at Poltalloch Gardens was as follows: Oct. 1904, 4.13 inches; Nov. 5.35; Dec. 6.08; Jan. 1905, 5.20), it would seem that four men would have enough time to turn over a large part of the interior of the fort after following the line of the walls, especially as no time was occupied in riddling soil.

² The arrow on all the plans and the compass readings indicate true north.

then excavated in spits of nine inches, and passed through a $\frac{3}{8}$ -inch riddle. Rock was reached at the first spit in the south-east angle, but in the north angle four layers of nine inches were removed. Few relics were found, though the soil was dark in colour and contained fragments of animal bones.

Operations were next transferred to a natural gully (Y), which ex-

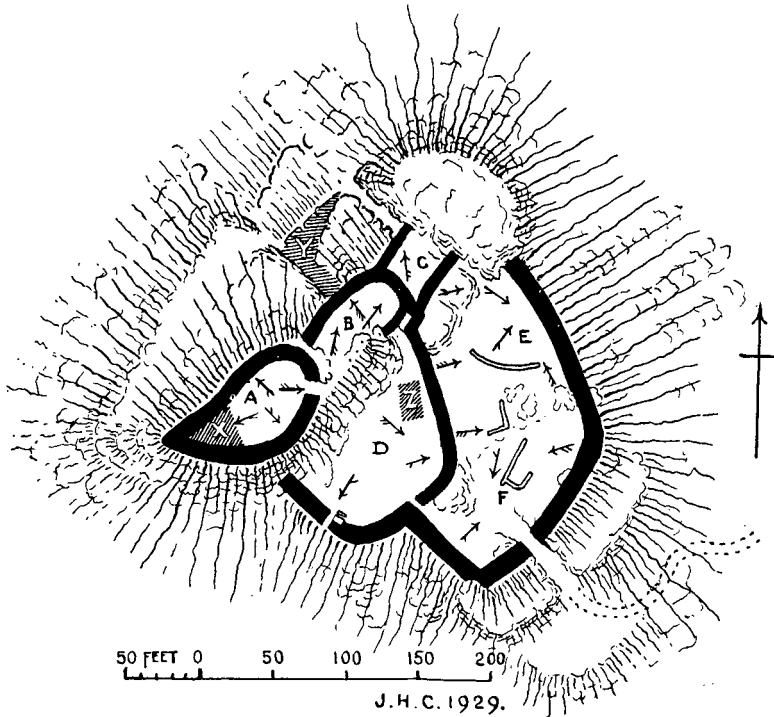


Fig. 2. Plan of Dunadd Fort.
(Adapted from the 1904 Plan by Dr Ross.)

tended down the slope to the north-west from the wall of Fort B. From the rank growth of nettles this evidently formed a midden. The upper part lay in a narrow neck some 15 feet in width between two walls of rock; the lower part widened out into a triangular area with a stop-ridge of rock below. Beyond this ridge it was unlikely that many relics would have fallen in their descent.

The midden was excavated in three portions: first, the triangle at the foot, then the lower half of the neck, and lastly the upper half of the neck. The turf and the debris from the ruined wall of the fort were

first removed, and then the soil was riddled in layers of nine inches till the virgin subsoil was reached. This was easily recognised, being of a lighter colour and without either charcoal, bones, or relics. The layer of debris amounted to about 18 inches, beneath which two layers of relic-yielding soil were removed. No sign of stratification remained, but at the bottom of the second layer the soil was richer in charcoal. The irregularity of the slope made it difficult to follow the deposits in their successive order, and no difference in the character of the relics could be distinguished between those from the higher and the lower levels.

After the midden was excavated, an area (Z) measuring 24 feet by 15 feet was marked off in Division D, and excavated in four layers of nine inches. This part was chosen as showing the strongest growth of nettles in the fort. Relics were found to be more plentiful here than in any other part examined, but again no sign of stratification was found. The ground seemed to have been turned over before, and two pieces of Samian ware were found on the top level not far from an Eley cartridge case.

Before the site was left the soil and stones from the parts excavated within the fort were filled in, and grass seeds were sown on the top. Upright slabs of stone were set at the corners of the excavations, projecting about 1 foot from the ground, as a guide in any future excavations that may be undertaken.

There is no doubt that many more relics might yet be discovered in the fort, Division D being the most likely part. Inscribed stones have already been found, and other objects of considerable interest quite probably remain buried. Little hope of any stratification of relics, however, remains, and it is doubtful if the fruits of further examination would repay the work.

THE RELICS.

The following is a list of the relics found:—

Silver:

Part of a hollow ring of very thin metal 2 inches in diameter, section circular $\frac{1\frac{5}{8}}{16}$ inch in diameter (fig. 3, No. 12).

Part of a ring $\frac{5}{8}$ inch in diameter, section circular $\frac{5}{64}$ inch in diameter.

Bronze:

Disc $1\frac{3}{8}$ inch in diameter. Within a ribbed border is an interlaced champ-levé design in gilt and green enamel (fig. 4).

Plate or coupling, $1\frac{7}{8}$ inch by $\frac{2\frac{1}{2}}{3}$ inch, with circular pierced ends (fig. 3, No. 10).

Spiral ring of wire with $1\frac{1}{2}$ turns, diameter $\frac{3}{4}$ inch, section of wire $\frac{1}{16}$ inch (fig. 3, No. 11).

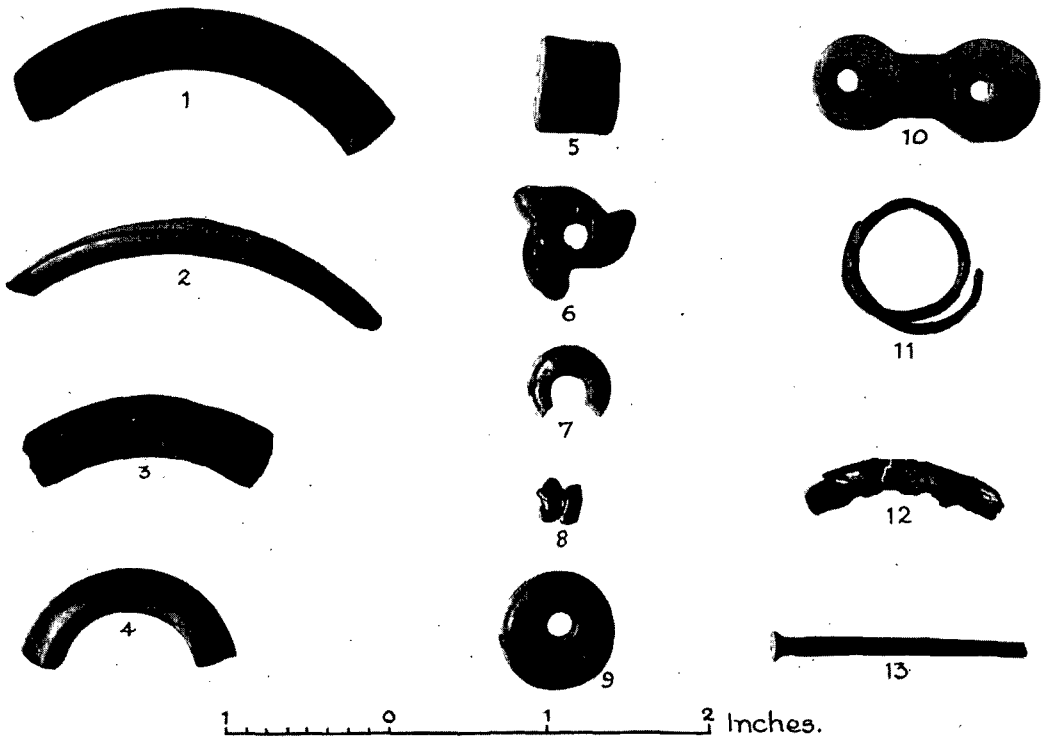


Fig. 3. Miscellaneous Objects found at Dunadd.



Fig. 4. Enamelled Bronze Disc from Dunadd. (†.)

Rivet in a fragment of an iron plate.

Small flat fragment.

Three small pieces of run metal.

Lead:

Cylindrical fragment, $1\frac{5}{8}$ inch long by $\frac{1}{2}$ inch in diameter.

Ball, $\frac{9}{16}$ inch in diameter, flattened at one side.

Iron:

Point of a sword $5\frac{1}{2}$ inches long and $1\frac{1}{8}$ inch across at the fracture, tapering with a curve to the point, and having a midrib extending to the full length (fig. 5, No. 36).

- Spear-head $3\frac{7}{8}$ inches long; point $2\frac{7}{8}$ inches, with triangular section becoming square at the tip, owing to the flat side being ground to an angle; socket 1 inch long, with internal diameter $\frac{1}{4}$ inch (fig. 5, No. 40).
- Spear-head $3\frac{5}{8}$ inches long; point 3 inches, with triangular section, probably square at the tip; socket broken (fig. 5, No. 39).
- Spear-head $3\frac{7}{8}$ inches long; point $1\frac{1}{2}$ inch flat; socket $2\frac{3}{8}$ inches, external diameter $\frac{1}{2}$ inch (fig. 5, No. 38).
- Spear-head $4\frac{1}{4}$ inches long; point broken $2\frac{1}{4}$ inches flat; socket broken 2 inches (fig. 5, No. 37).
- 15 conical ferrules measuring from $1\frac{5}{8}$ inch to $3\frac{5}{8}$ inches in length (fig. 5, Nos. 32 to 35).
- 3 objects, probably ferrules.
- 20 knives or parts of knives with blades $1\frac{1}{2}$ inch to 4 inches long, and tangs up to $1\frac{5}{8}$ inch long (fig. 5, Nos. 1 to 6).
- Part of the leg of a pair of shears, blade $2\frac{5}{8}$ inches long, handle 2 inches long (fig. 5, No. 9).
- Socketed three-pronged tool or scratcher, $1\frac{9}{16}$ inch by $\frac{1}{3}\frac{1}{2}$ inch, with prongs $\frac{7}{32}$ inch long. Similar tools have been found in various Continental localities, and are regarded as tools of the potter or brickmaker.¹ A similar but larger tool called a "scratcher" is used by plasterers to-day for scratching the surface of newly applied plaster (fig. 5, No. 7).
- Small socketed axe or chisel $2\frac{1}{2}$ inches long, with a cutting edge $1\frac{3}{8}$ inch broad. The socket is formed by the edges being bent round to clasp the haft as in a modern spud. The type is found on Continental sites of the La Tène period, where it varies much in size and is called an axe (fig. 5, No. 8).
- Another example, probably of the same, $1\frac{3}{4}$ inch by $\frac{1}{16}$ inch.
- Object resembling a belt-hook, with a trefoil plate (fig. 5, No. 12).
- Object shaped like a bird, with long leg, $1\frac{3}{4}$ inch by $1\frac{1}{8}$ inch (fig. 5, No. 11).
- 26 nails measuring from $\frac{5}{8}$ inch to $3\frac{1}{4}$ inches in length (fig. 5, Nos. 41 to 45).
- 23 nail-like objects.
- 7 pins or nails 1 inch to 2 inches long (fig. 5, No. 22).
- Stud or rivet with one square and one round end (fig. 5, No. 14).
- Rod, $1\frac{1}{8}$ inch by $\frac{1}{4}$ inch, with a washer $\frac{7}{8}$ inch in diameter fastened on it equidistant from the ends (fig. 5, No. 13).
- Washer $1\frac{3}{8}$ inch in diameter, with a square hole $\frac{3}{8}$ inch in diameter (fig. 5, No. 17).

¹ See *Revue des Musées et Collections Archéologiques*, No. 15, p. 81 (1928); No. 17, p. 139 (1928); No. 19, p. 20 (1929).

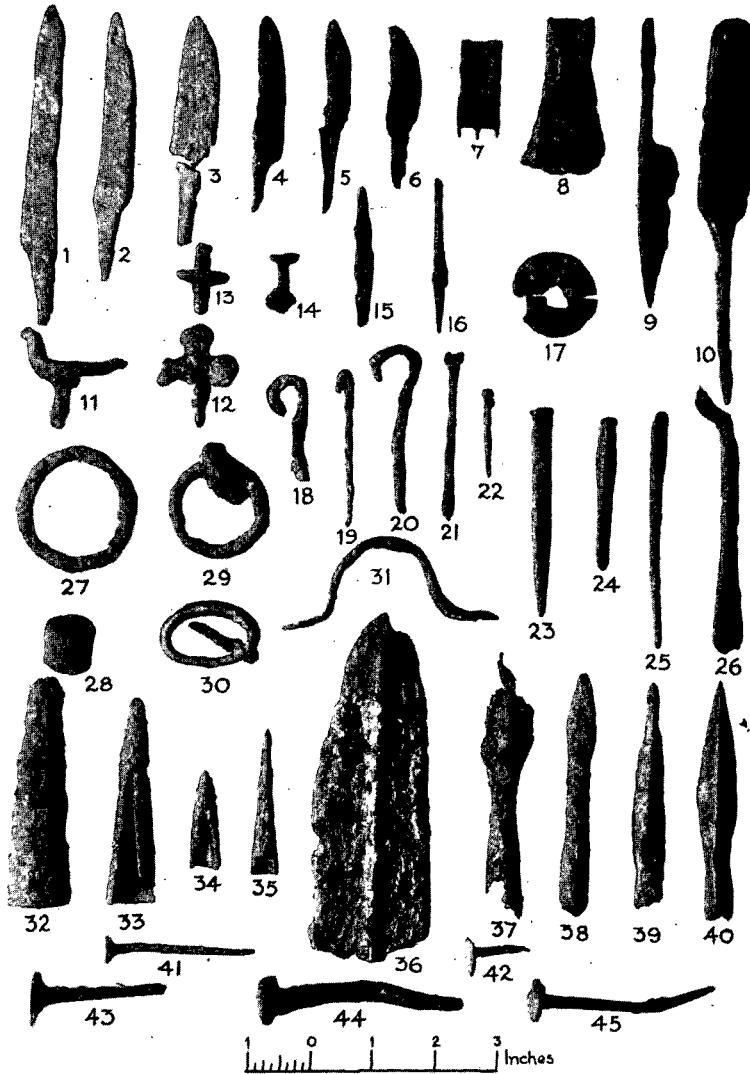


Fig. 5. Iron Objects found at Dunadd.

4 clasps or cleats.

Fragment of plate showing the everted ends of a split-pin.

Staple-like object, with everted ends.

Oval buckle $1\frac{5}{8}$ inch by $1\frac{1}{2}$ inch (fig. 5, No. 30).

U-shaped handle with rivet-holes in the flattened everted ends, $3\frac{7}{16}$ inches by $1\frac{3}{8}$ inch (fig. 5, No. 31).

Spatulate tool $3\frac{1}{4}$ inches by $\frac{7}{8}$ inch, with a tang 3 inches long. A somewhat similar tool also with a proportionately long tang is among the Traprain relics (fig. 5, No. 10).

Another example with tang awanting, $3\frac{3}{8}$ inches by 1 inch.

5 rings or parts of rings with diameter from $\frac{3}{8}$ inch to $1\frac{1}{2}$ inch (fig. 5, Nos. 27 and 29).

Tubular ring $\frac{1}{2}$ inch in diameter (fig. 5, No. 28).

T-shaped object $1\frac{1}{2}$ inch by $\frac{3}{4}$ inch.

7 pointed implements $2\frac{1}{8}$ inches to $3\frac{7}{8}$ inches long, one having part of an oak handle attached (fig. 5, Nos. 15 and 16).

Punch $3\frac{3}{8}$ inches long (fig. 5, No. 23).

3 small chisel-like implements $2\frac{1}{2}$ inches long (fig. 5, No. 24).

8 hook-like objects (fig. 5, Nos. 18 to 20).

Wedge-shaped object $1\frac{1}{2}$ inch by $\frac{1}{4}$ inch.

8 rod-shaped objects (fig. 5, Nos. 21 and 25).

Object flattened at one end and bent at the other, $4\frac{1}{4}$ inches long (fig. 5, No. 26).

7 fragments of straps $\frac{1}{4}$ inch to $\frac{1}{2}$ inch broad.

2 cylindrical objects, $\frac{3}{4}$ inch by $\frac{3}{4}$ inch, and $1\frac{1}{4}$ inch by $\frac{3}{4}$ inch.

2 spherical objects, $1\frac{1}{4}$ inch and $1\frac{1}{8}$ inch in diameter.

13 miscellaneous objects.

A number of pieces of iron ore.

Glass:

Tricuspid bead of blue glass $\frac{3}{4}$ inch in diameter (fig. 3, No. 6).

Half of a cylindrical bead of black glass $\frac{1}{2}$ inch long and $\frac{9}{16}$ inch in diameter with a yellow band at each end, between these is a zigzag design in white (fig. 3, No. 5). An identical bead was found in a tomb at Aubigny-en-Artois, Pas-de-Calais, along with a Roman coin of date about A.D. 300.¹ Another was found in a tomb in Northern France together with a coin of the Emperor Gratian (c. A.D. 380); it was of like design, but with red glass instead of black.² A bead of similar design but of slightly different colour, having brown glass instead of black, has been found in Lincolnshire.³

¹ *Les Arts Industriels des Peuples Barbares de la Gaule du V. au VIII. Siècle*, pl. C¹ (1901).

² *Le Mobilier Funéraire Gallo-Romain et Franc en Picardie et en Artois*, pl. 41 (1902-5).

³ *Remains of Pagan Saxondom*, by J. Y. Akerman, pl. xxi. (1855).

Part of a pale green bead $\frac{1}{2}$ inch in diameter, perforation $\frac{9}{32}$ inch (fig. 3, No. 7).

7 fragments of thin glass, brown, yellow, and green.

Amber:

Bead $\frac{3}{4}$ inch in diameter (fig. 3, No. 9).

Mica:

A small sheet.

Paste:

Segmented terra-cotta bead of two segments, $\frac{3}{16}$ inch long (fig. 3, No. 8).

Bone:

Pointed implement $4\frac{1}{4}$ inches long and $1\frac{3}{8}$ inch across the base.

Distal end of an ox humerus, 5 inches long, with the broken edges smoothed.

Pin, point broken, $1\frac{5}{8}$ inch long (fig. 3, No. 13). It fits exactly one of the clay moulds. The same feature occurred among the Mote of Mark relics.

Jet:

7 fragments of armlets with the curve suggesting an internal diameter of from 2 inches to 3 inches. The sections are D-shaped (fig. 3, No. 1); segmental (No. 3); and flat (No. 2).

Fragment of a ring, internal diameter $1\frac{3}{8}$ inch (fig. 3, No. 4).

Stone:

Part of a saddle-quern.

Bar-mould.

Bar-mould with mould on each side (fig. 6, No. 8).

Bar-mould with two moulds on one side.

Pivot-stone $7\frac{1}{2}$ inches in diameter, with conical socket $1\frac{1}{4}$ inch in diameter and $\frac{7}{8}$ inch deep.

14 discs or lids $1\frac{3}{4}$ inch to $4\frac{1}{2}$ inches in diameter (fig. 6, Nos. 4, 6, and 7).

One with a diameter of 4 inches has a hole partially drilled from each side (No. 4).

3 fragments with holes.

Whorl of red stone 2 inches in diameter (fig. 6, No. 5).

Half of a whorl of schist $1\frac{5}{16}$ inch in diameter.

Thin flat fragment $\frac{3}{4}$ inch in diameter, showing part of a perforation at the edge. In the centre is a circular depression $\frac{3}{32}$ inch in diameter, and on the opposite side a corresponding raised circle $\frac{3}{16}$ inch in diameter.

Whetstone, broken in half, $3\frac{3}{4}$ inches by 2 inches by $\frac{3}{4}$ inch, much smoothed all over (fig. 6, No. 10).

Small whetstone or polisher $1\frac{3}{8}$ inch by $\frac{5}{16}$ inch by $\frac{1}{8}$ inch (fig. 6, No. 2).

Polisher $2\frac{3}{16}$ inches by $\frac{5}{8}$ inch, square in section (fig. 6, No. 1).

Conical-shaped stone $1\frac{7}{8}$ inch by $1\frac{1}{4}$ inch, much worn across the base by rubbing or pounding (fig. 6, No. 3).

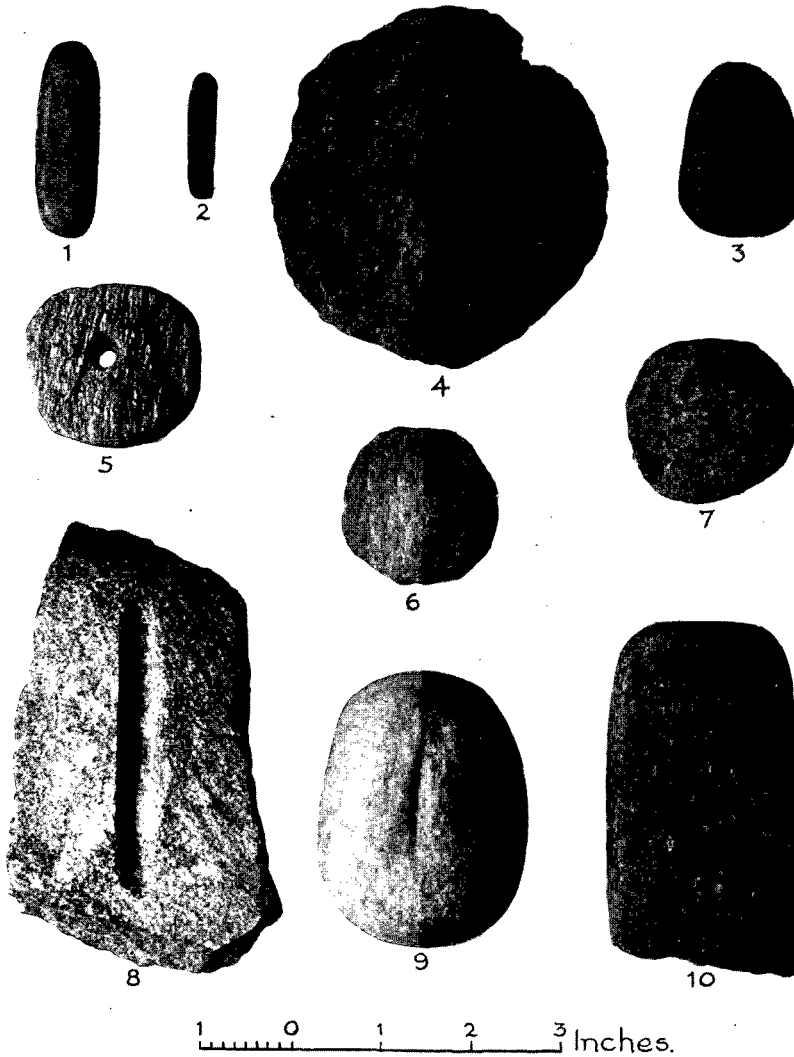


Fig. 6. Stone Objects found at Dunadd.

Hammer-stone of quartz, abraded at one end, with a longitudinal groove inclined downwards from right to left on both sides as if

used as a strike-a-light or for sharpening a pointed tool, 3 inches by $2\frac{1}{4}$ inches (fig. 6, No. 9).

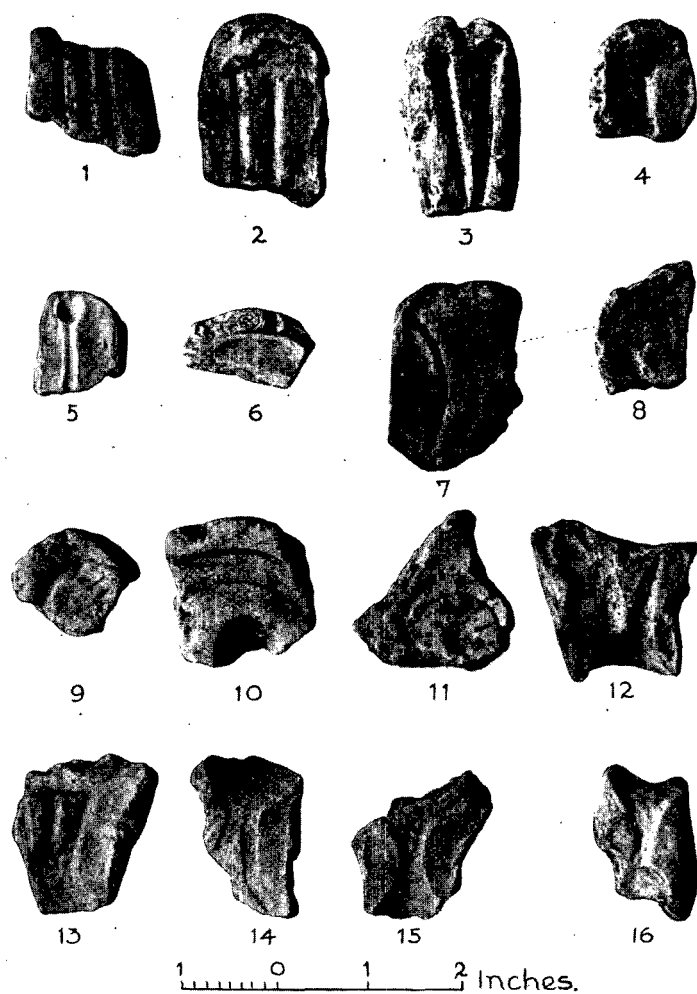


Fig. 7. Fragments of Clay Moulds found at Dunadd.

A number of smooth pebbles $\frac{1}{2}$ inch to 2 inches in diameter, spherical, flattened, or oval in form, which appeared to have been selected and brought to the site.

About 150 flint flakes, mostly unworked, but some showing secondary working.

Clay:

About 100 moulds, mostly fragmentary, for pins, brooches, rings, etc.

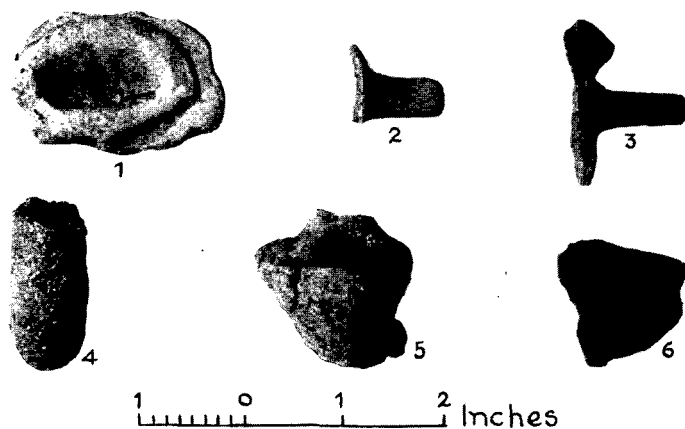


Fig. 8. Crucibles and other Objects found at Dunadd.

The forms are Celtic in character, but only one (fig. 7, No. 6) bears signs of ornamentation, having a spiral design.

3 small fragments of wattle and daub (fig. 8, No. 6).

A small lump having on one side the impression of the points of three small fingers placed close together, showing the nail-marks (fig. 8, No. 1).

Cup-shaped crucible with an attached cover open at one side (fig. 8, No. 5).

Cylindrical crucible (fig. 8, No. 4).

11 handles of crucibles (fig. 8, Nos. 2 and 3).

75 fragments of crucibles, some being partially coated with black, red, or green glaze.

Pottery:

Small fragment of rim of Bronze Age urn of food-vessel type (fig. 9). The lip is ornamented with a raised band of chevrons, made by impressing an obtuse-angled

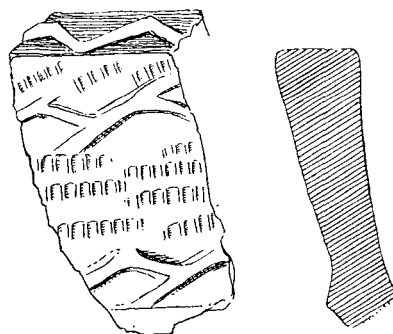


Fig. 9. Fragment of a Food-vessel from Dunadd. ($\frac{1}{2}$.)

tool into the clay with the point alternately outwards and inwards. Between the rim and a moulding $1\frac{1}{4}$ inch below it are two similar bands, between which are three rows of a dotted impression, made with a comb or notched tool. Above the upper band of chevrons is another row of the dotted impressions. The urn found at Brouch an Drummin in 1928 had a combination of the same form of impressions.

4 small fragments of Roman Samian ware.

63 fragments of native domestic pottery (fig. 10). This was wheel-

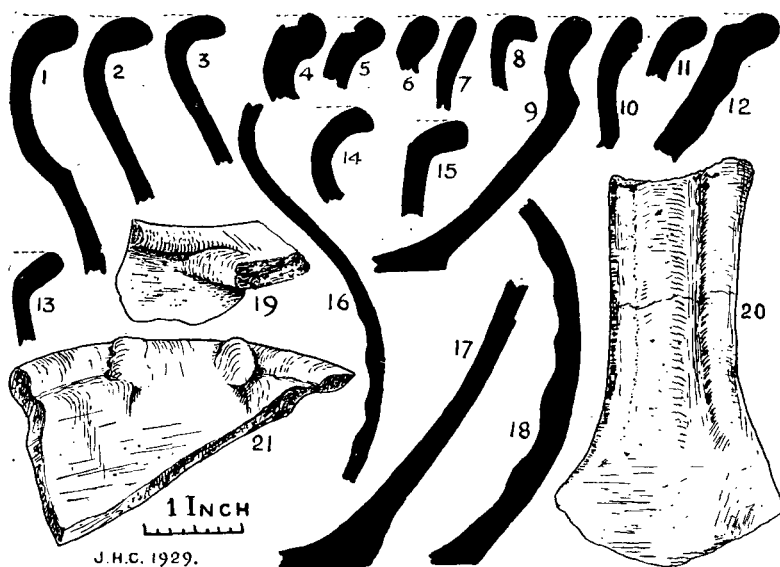


Fig. 10. Types of Pottery found at Dunadd.

turned and made of a clay of moderate fineness. The fragments are mostly small, but one large piece of a shallow vessel shows a depth of $2\frac{1}{2}$ inches, with a diameter of about $6\frac{3}{8}$ inches externally across the mouth (No. 9). Like most of the fragments with a lip it has an everted rim; the base is $3\frac{3}{8}$ inches in diameter. No. 10 and probably several of the smaller fragments shown in fig. 10 represent this type, which in a deeper form is also probably shown in No. 17. Another widely splayed bowl, No. 12, is thicker in the wall. It is of a pale and slightly greenish clay colour, and has no shoulder below the rim. Its curve suggests an external diameter at the mouth of $7\frac{1}{2}$ inches, and on the inner side of the lip is a slight shoulder as if to receive a lid. This shoulder is intermitted

at one point for $1\frac{1}{2}$ inches, as shown in No. 21, and a small lump of clay has been encrusted at each side of the space so formed, evidently to facilitate pouring. In Nos. 4 and 5 also may be seen a slight shoulder on the inner side of the lip. In addition to the bowl form is another type of vessel in which the lower part is globular, it contracts towards the neck and probably had an everted rim; sufficient sherds, however, were not found to reconstruct the type with certainty. The diameter at the widest part, 2 inches above the base, seems to have been about $5\frac{1}{8}$ inches. No. 18 shows a base of this type, and No. 16 has most of the side but without either base or rim; Nos. 1, 2, and 3 probably represent the rims. Other sherds shown in fig. 10 belong to vessels having an external rim diameter varying from 5 to $6\frac{3}{4}$ inches. Portions of handles are shown in Nos. 19 and 20.

Charcoal:

I am indebted to Professor Wright Smith for reporting on the charcoal found. This was derived from the oak and the alder, conditions having apparently favoured the growth of the latter more than that of the former.

Animal Bones, etc.:

I have also to thank Mr Balsillie for examining some of the stones, and Dr James Ritchie for his examination of the animal bones. His report is appended.

We may now consider to what conclusion we may come from the types of relics found, regarding the period of occupation of Dunadd. The isolated and strongly defensive nature of the hill must have commended itself to the inhabitants of the district whenever they found it necessary to live in a place of security. We cannot assert that the site was inhabited during the Bronze Age, for the single fragment of a food-vessel may have been thrown from a burial on the hill by later occupants. Early in the Iron Age, however, the hill seems to have been occupied. The socketed axe must date from the beginning of our era or earlier, and the Samian ware testifies to a trade carried on with our Roman invaders.

The two Scottish sites from which we have relics which can be compared with those from Dunadd are Traprain Law in East Lothian and Mote of Mark in Kirkcudbright. The occupation of the former site possibly began in Neolithic times and extended to the beginning of the fifth century. At Mote of Mark relics dated from Roman times down to the eighth or ninth century. The Dunadd relics correspond

more to those from the latter site. The pottery is similar and the moulds are alike; the rich interlaced work in the Mote of Mark moulds is absent from those of Dunadd, but similar designs on the brass and gilt stud and on two stones found in 1904 speak of an occupation somewhere about the eighth century. On the other hand, several types find parallels only at Traprain, such as spear-heads, shears, jet armlets, and brown and green glass. Other relics again are common to all three sites, such as knives, ferrules, and bar-moulds.

To sum up, the relics go to confirm the occupation of Dunadd during the period ascribed to it in history, from the beginning of the sixth till the middle of the ninth centuries, with an earlier occupation dating at least from early in the Iron Age.

Our thanks are due to Sir Ian Malcolm for having placed the relics on loan in the National Museum of Antiquities, and for his co-operation in the excavation of the site. I have also to acknowledge the help given by Mr J. G. Mathieson, factor, Poltalloch, in making arrangements for the work.

REPORT ON THE BONES FROM DUNADD. By JAMES RITCHIE, D.Sc.

The bones from Dunadd represent the ordinary accumulation from an inhabited site, being almost wholly the remains of animals which have been used as food. Domestic animals naturally predominate, but the relative numbers of bones of the different species are interesting. In the majority of early settlements in Scotland sheep predominate, but here the greater number of remains belong to the pig, followed by the ox, and that by the sheep. It can scarcely be said, however, that the number of bones found was sufficient to establish quite securely this order of precedence.

Domestic animals other than food animals were represented by a portion of the skull of a dog, roughly about the size of a small collie, and a single molar tooth of a horse.

Relics of only three wild creatures occurred in the series, and these were mere fragments. One, a lumbar vertebra, represented a fox; another, a small fragment of the antler of a very young red deer; and the last, a two-inch-long fragment of a split wing-bone of a bird, which in diameter and texture agrees exactly with that of the wild whooper swan. The species is nowadays an extremely rare breeding bird in Scotland, but it is a fairly common immigrant during the winter months in suitable places along the coast or on inland lakes.

Of the bones submitted for examination only two showed signs of

working. One was shaped from the long bone of the limb of an ox—a triangular implement with a broad base and a worn and rounded point. The other was the distal end of an ox humerus, broken off at a height of 5 inches, with the spongy bone of the interior removed, and the edges smoothed and rounded as if for some definite purpose.

II. EXCAVATIONS AT OTHER SITES.

Dry weather being essential for the riddling of soil at Dunadd, arrangements were made for work at other sites in the event of rain. The Bronze Age cairns were selected for this purpose. Several of these had already yielded notable results.

1. *Mid-Cairn, Nether Largie.*

The chief site selected was a cairn on level ground in the Kilmartin valley, about 320 yards north-east by north of the school at Nether

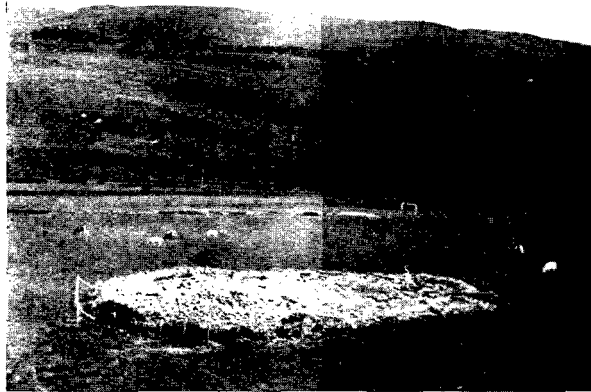


Fig. 11. Mid-Cairn, Nether Largie, from the west.

Largie (fig. 11). Almost circular, it measured 109 by 101 feet, the greater diameter being from north-west to south-east. It was said to have been about 10 feet in height, but most of the stones had been removed not long before for repairing roads. As inquiry failed to obtain any evidence of a cist or other construction having been disturbed, it seemed probable that such still remained underground.

Over most of the area the stones had been removed down to the ground level, but in parts they remained to a depth of from 1 to 3 feet (fig. 12). At the south-west side several large boulders could

be seen forming apparently the arc of a circle. It was decided to follow this line, throwing the superincumbent stones outside the line, and then to turn over the stones and soil within the area till the subsoil was reached, in order to reveal the presence of the covering slabs of cists.

This work took ten days to carry out, with two men. The large boulders set on edge were found not to form a complete circle, their

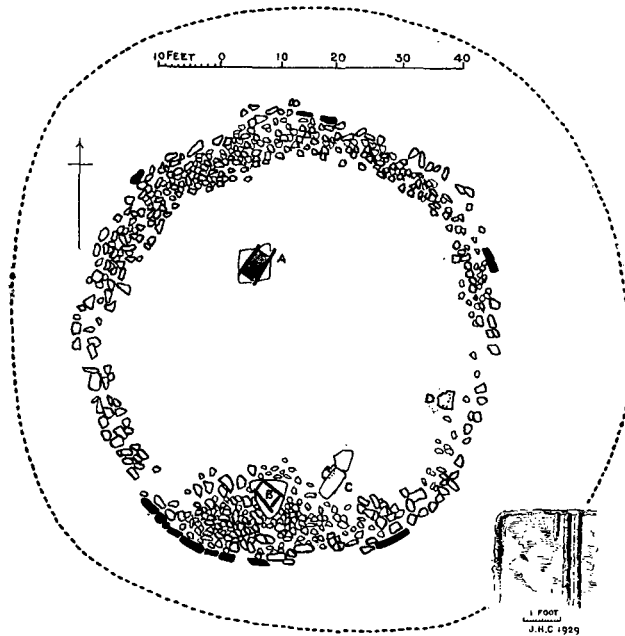


Fig. 12. Plan of Mid-Cairn, Nether Largie; inset, grooved slab at A.

place being taken by boulders rather smaller in size which had been laid on the surface of the ground. The extent to which this construction had covered the interior was not obvious over the parts where practically all the stones had been removed, but the boulders had at least covered a belt of from 5 to 15 feet wide. The area enclosed by this belt measured 71 feet from north-east to south-west by 66 feet. At parts the stones forming the belt somewhat overlapped, the outer stones lying over the inner stones.

Two cists were found. One of these (A) lay 14 feet north-west by north of the centre of the cairn. The lozenge-shaped cover, 8 feet 4 inches by 6 feet, lay about 1 foot below the surface of the ground; it was covered

with sand and gravel, which had doubtless been excavated when the cist was made. The cist was formed of four slabs of schist, the axis pointing 33° east of north. It measured 4 feet in length by 2 feet 4 inches at the south end and 2 feet 1 inch at the north end. It was 2 feet deep, and was paved with small, flat, water-worn stones; the largest of these was placed in the north-east corner, as if to support an urn. The infiltrated soil, some 4 inches deep, was riddled and found to contain no relics. The side slabs were grooved for the end slabs, and at the north-east corner the side slab had two additional grooves outside the cist (fig. 12, inset), the outer of the two being only cut for



Fig. 13. Slab with Cup-marks, Mid-Cairn, Nether Largie.

8 inches at the top of the stone. The slab at this point projected 1 foot 9 inches beyond the end slab. The slab at the west side projected northward 16 inches beyond the end slab.

The second cist (B) lay 24 feet south-south-west of the centre of the cairn. The triangular cover, 6 feet 9 inches by 6 feet, lay about 1 foot beneath the surface. The cist pointed 42° west of north, and measured 3 feet 6 inches by 2 feet 4 inches at the south end and 2 feet at the north end. It was 2 feet deep and was unpaved. The interior contained 4 inches of soil, which was riddled but contained no relics. On the inner face of the north-end slab was a single cup-mark 2 inches in diameter and $\frac{1}{2}$ inch deep; it was placed near the lower left corner of the slab. Some very large boulders lay on the cover of this cist, and between it and the encircling ring.

Although neither of these cists contained relics, it is almost certain that neither had been previously opened. The covering of pure sand and gravel on the central cist could hardly have been disturbed and replaced without being mixed with surface soil. Neither the covers nor the end slabs showed signs of having been moved; in fact, the end slabs of the central cist could not have been moved without breaking the edges of the grooves in which they were locked.

Seven feet to the east of the south cist lay a large flagstone 5 feet 4 inches by 2 feet 7 inches. The gravel beneath it did not seem to have been excavated, and though evidently laid in position by the hand of man, the slab was not quite horizontally placed. A smaller horizontal slab was placed close to it to the north-east, and two more horizontal slabs, still less in size, adjoined it to the north-west; the larger of the two lay partly beneath it. These slabs were 2 feet below the surface.

Some 5 feet from the encircling ring of boulders at its south-east side lay a flat slab, 3 feet 3 inches by 2 feet 1 inch (fig. 13). On being turned over it was found to bear on its under surface five cup-markings irregularly placed.

2. *Cist and Stone Circle, Temple Wood, Ri Cruin.*

In a small wood called the Temple, or Half Moon, Wood, on the right side of the road from Nether Largie to Ri Cruin,¹ and some three hundred yards from the former, stands a small circle of thirteen stones (fig. 14). The circle is incomplete on its south-east side and measures 43 feet north and south by 40½ feet. The stones vary from 1 foot 1 inch to 4 feet 2 inches in height; the smaller have probably been broken across.

Digging was carried on at the site for the purpose of examining a cist said to lie in the centre of the circle, and also to find whether the circle had at one time been complete. The work took half a day with two men, on 13th July. The cist was found to lie pointing 33° east of north. The south-east side measured 5 feet 1 inch and the other side 4 feet 5 inches, the width was 2 feet 11 inches and the depth about 1 foot 9 inches. No cover-stone was present, an ash-tree of over fifty years' growth occupying the interior, which seemed to be unpaved. The open space at the south-east side of the circle was next examined. As this part lay next the public road it seemed not unlikely that stones might at some time have been removed from it. At the north end of this segment a fourteenth stone was found, broken off at the surface of the ground. The former sites of four more stones were clearly traceable by the deep soil at the points indicated on the

¹ Ri Cruin probably takes its name from this circle.

plan. In one of these, broken fragments of stone remained. There was also found an upright stone set at right angles to the periphery and measuring 1 foot 10 inches in breadth by 5 inches in thickness; it did not quite reach the surface. Two wide intervals between stones at the south-west side of the circle were examined in 1930. The more northerly contained the pinning of a stone which had been removed in the other the base of the original stone was found, it measured

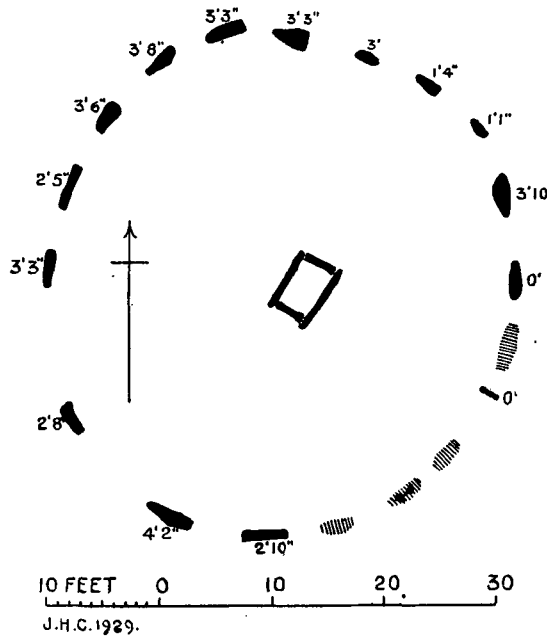


Fig. 14. Plan of Stone Circle, Temple Wood, Ri Cruin.

3 feet 8 inches by 9 inches. The positions of these stones are left blank on fig. 14.

3. Cists at Ri Cruin.

The site of a cairn of peculiar interest lies in a small wood 180 yards south of the Poltalloch Estate Offices at Ri Cruin. It is very slightly raised above the level ground on the right bank of the Kilmartin Burn, which is some 200 yards distant to the east. Although some of the stones of the cairn remain, its original dimensions are no longer evident; it was probably of considerable size. Three cists were found here about 1830. They were later reopened and examined by Dean Mapleton, who described them in our *Proceedings*.¹ On account

¹ *Proc. Soc. Ant. Scot.*, vol. viii. p. 378 (1869-70).

of the unusual features then discovered the cists were reopened this year (fig. 15). The work took three-quarters of a day with two men, on 2nd and 5th July.

The north cist measures 4 feet 5 inches along the east side and 4 feet 1 inch along the west side, the width is 2 feet 1 inch and the depth about 1 foot 8 inches. The cover measures 10 feet 3 inches by 3 feet 10 inches and projects 2 feet 7 inches beyond the cist at either end. The north end slab is inserted in grooves cut in the side slabs, but there are no grooves at the south end. The axis points 14° east of north.

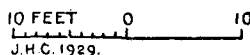


Fig. 15. Plan of cists at Ri Cruin.

The remains of a smaller cist lie 23 feet to the south. The cover and both end slabs are gone, but the side slabs remain *in situ*. They are only about 12 inches apart and are deeply grooved at the west end. The slab at the north side is 6 feet in length and has a groove $1\frac{3}{4}$ inch wide and $\frac{1}{4}$ inch deep. The south slab measures 5 feet 1 inch, the groove being $2\frac{1}{2}$ inches wide and $\frac{7}{8}$ inch deep. The axis of the cist points 88° east of north.

Lying parallel with this cist 5 feet to the south is the third and most important of the group. It is 6 feet 5 inches long by 3 feet 4 inches at the west end and 2 feet 2 inches at the east. The original depth has been about 2 feet 9 inches. Each side is formed of two slabs, those at the north side are in alignment, but those at the south side incline inwards towards the middle of the cist.¹ Slabs have been laid on the top of the side slabs to increase their height to that of the end slabs.

Two of the slabs in this cist were figured and described by Dean Mapleton and are of special interest. They were said to have been taken to Poltalloch and lost in a fire which took place there some thirty years ago. They bear the only known Bronze Age representations of actual objects in Great Britain,² and are not only the oldest examples of pictorial art in Scotland, but are probably over a thousand years older than any others. The west end slab (fig. 16, No. 3) bore shallow sculptured representations of flat axe-heads. The other slab (fig. 16, No. 2) was a long narrow stone, set upright, the northmost of two which formed the east end of the cist. It bore an incised figure

¹ Fig. 16, No. 1 (from vol. viii. p. 379) shows the slabs of the north side inclined outwards and those of the south side straight. The present form of the cist is as in fig. 15.

² A boat figure, however, is cut on a rock near Wemyss in Fife.

resembling the head of a garden rake, the significance of which was not realised when it was first described. Sir John Evans was of the opinion that the axe-heads might have been moulds for bronze axes. That they were not so, however, is shown by similar figures carved on

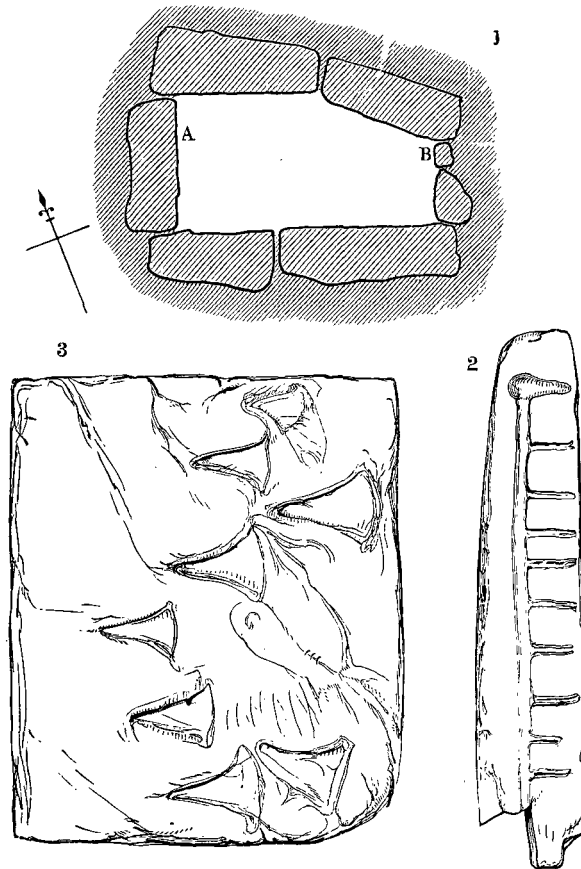


Fig. 16. 1. Cist at Ri Cruin. 2. Slab from cist, with boat figure.
3. Slab with axe-heads.

a slab in a passage-grave at Mane Nelud, near Lochariaker, in the Department of Morbihan in Brittany (fig. 17, 2), where they are also associated with the rake-head figure. On this slab the axes are shown with hafts, and cannot therefore be moulds. The rake-head figure occurs at New Grange, in Ireland (fig. 17, 1), and is now recognised as a decadent form of the figure of a boat with high prow and stern and filled with rowers. The type, in an unmistakable form, is

carved on rocks in Scandinavia (fig. 17, 3). It also appears on the Scandinavian bronze knives (fig. 17, 4).

The place of the slab with the boat figure in the cist has been filled with another of the same size, but it was with no small surprise and satisfaction that we found the axe-head slab to be still *in situ*. Six axe-heads can be clearly seen facing right; two more forms, dis-

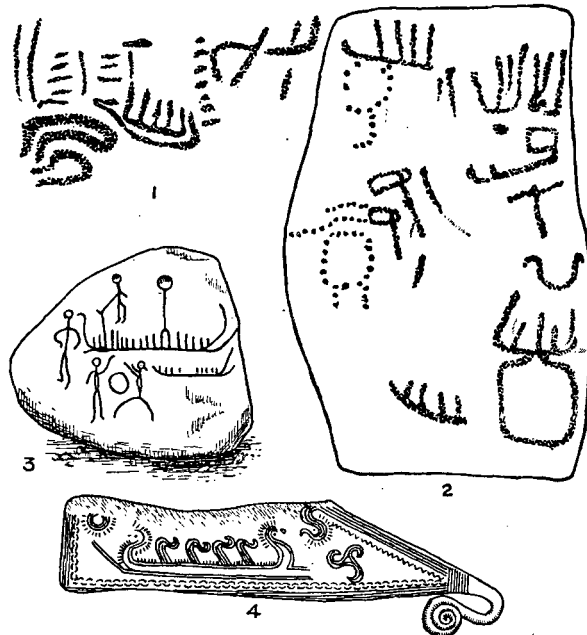


Fig. 17. Bronze Age representations of boats and axes.

- | | |
|----------------------------|--|
| 1. At New Grange, Ireland. | 2. At Mane Nelud, Brittany. |
| 3. In Scandinavia. | 4. On a bronze knife from Scandinavia. |

similarly placed, are of doubtful origin. At the time of their discovery casts of both slabs were taken for the National Museum.

4. Dunchraigaig Cairn.

Half a mile south-east of the Ri Cruin cists and on the opposite side of the Kilmartin Burn lies the large cairn of Dunchraigaig. The site is in a small wood close to the west side of the public road and half-way between the hamlets of Baluachraig and Dunchraigaig. This cairn was partially excavated by Canon Greenwell in 1864,¹ a day being occupied

¹ *Proc. Soc. Ant. Scot.*, vol. vi. p. 347.

with the work. Dean Mapleton had previously worked at the site. Much of the cairn had at an earlier time been removed; it seems to have measured over 100 feet in diameter and is still about 7 feet in height. The south side has been removed for some 29 feet, as far as a burial chamber of unusually large proportions, the axis of which points west-south-west. Canon Greenwell gave its dimensions as 7 feet 6 inches by 3 feet 2 inches and 3 feet 6 inches deep; my measurements were: north side, 8 feet 8 inches; south side, 9 feet 10 inches; west end, 3 feet 6 inches; east end, 5 feet 4 inches. The cover measures 13 feet 2 inches by 6 feet by 1 foot 3 inches; these are rather less than Canon Greenwell's figures: it must weigh considerably over five tons. The sides of the chamber are formed, not of slabs, but of boulders of widely varying size, and are very rudely built. In the 1864 excavation horizontal slabs were found at the west end, having remains of burnt bodies both above and beneath them. There was also an unburnt burial near the middle of the cist. No relics were found. To the north of this cist and at a higher level in the cairn lies a cist with axis east-north-east, measuring 4 feet 5 inches by 2 feet 9 inches by 2 feet 6 inches. The east end slab is placed between the side slabs, which are not grooved. The west end slab, on the other hand, is placed against the ends of the side slabs. In 1864 this cist was found to contain a globular food-vessel, calcined bones, charcoal, and flint chippings, lying among clay, sand, and gravel. An unburnt body lay on the top of the cover; and beneath the flat paving stones, among clay, was an unburnt body with head to the north-east. The urn is now on loan in the National Museum.¹ A smaller cist which lay 22 feet to the east is not now traceable. Its measurements were 1 foot 6 inches by 1 foot 3 inches by 1 foot 3 inches, the axis pointing north-east. The contents were flint, burnt bones, and a globular food-vessel,² which was placed on the surface of the gravel with which the cist was filled.

Half an hour was spent this summer, on 5th July, examining this site.

The sculptured rock at Báluachraig lies about 250 yards north-west of this cairn.

5. *Reputed Cairn, Ballymeanoch.*

A quarter of a mile to the south of Dunchraigaig cairn are the famous standing stones of Ballymeanoch. In the same park lie two cairns, to the east and to the south-west of the stones respectively. Within a wood, and at a distance of 140 yards north-west by north of the four stones in the group set in alignment, lies a heap of stones of slight elevation, measuring 55 feet by 35 feet. It is oval in form, the major

¹ It is figured in vol. xxxix. p. 235.

² See vol. xxxix. p. 237.

axis lying east and west. Although not mentioned by either Greenwell, Romilly Allan, or Mapleton this is marked as a "Cairn" on the Ordnance Survey map. The site is not suggestive of burial, being slightly hollowed, but cists are stated to have been found at other parts of the wood, "in one of which a bronze dagger and an urn still lie buried beneath the gravel."¹ Rather over a day was spent in thoroughly examining this site, on 22nd and 23rd May. It was proved to be of recent origin, with no sign of construction and no excavation in the ground beneath.

6. Cists, Barsloisnoch.

About 250 yards east by south of the Poltalloch home farm at Barsloisnoch and 75 yards south of the public road lie two cists (fig. 18). The

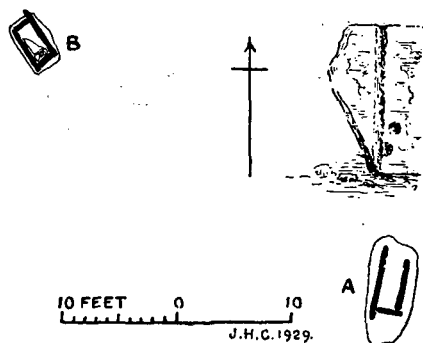


Fig. 18. Plan of cists at Barsloisnoch. Inset, groove and cup-marks in cist A.

large cover of one of these is exposed, the other is below a small heap of stones. The surrounding ground is level, the cists at present lie in a wet hollow, but this is probably due to sand and gravel having been removed from their vicinity.

The larger of the cists points 11° east of north. It measures 3 feet 11 inches in length by 1 foot 6 inches in width and is 2 feet 2 inches deep. The north end slab is gone, but its former position is indicated by two grooves cut in the side slabs. The slab at the west side

projects 18 inches beyond the groove, and another groove is cut on it outside the cist at a distance of 7 inches from the first groove. This second groove, however, is only 8 inches in length. The grooves are from 1½ inch to 3 inches wide and from ¼ inch to ¾ inch deep. The south end slab is inserted in a groove in the west side slab, but eastwards projects past the end of the east side slab. The cover of the cist measures 9 feet by 3 feet 11 inches by 9 inches. It projects 2 feet 9 inches beyond the south end of the cist. The slab at the east side has two cup-marks on its inner face (fig. 18, inset), the groove was cut partly through one of these, suggesting that the cup had no significance for the workman who prepared the slab for use in the cist. Around this cist is a small heap of stones, probably part of the original cairn. The bottom was unpaved. The soil in the cist was riddled, but only a small fragment of jet was found. It was polished on one side, but the fragment was not large

¹ Dean Mapleton's MS. notes.

enough to be distinguished as part of any ornament, such as the plate of a jet necklace. After this cist had been examined, a small construction of stones covered by a flat flag was built at its north end to facilitate future examination of the grooves and cup-marks.

The other cist lies 33 feet to the north-west; the axis points 32° west of north. This cist is much smaller, measuring 3 feet 4 inches by 1 foot 11 inches at the north end and 1 foot 5 inches at the south end; it is 1 foot 9 inches deep. The end slabs are placed between the side slabs, but the latter are not grooved. The cover measures 4 feet 7 inches by 2 feet 6 inches by 3 inches. The bottom is partially paved with flat stones. The soil was riddled but no relics were found.

The work of examining these cists occupied the time of two men for a day, on 3rd June. They were probably both covered originally by one cairn, but no record is preserved of their first opening. The Ordnance Survey map marks the site of a cist not far off, a few yards to the north-west of Barsloisnoch farm steading, but no surface indications of the site remain.

7. *Cist, Crinan Moss.*

This cist lies in a wood 1100 yards south-east by south of Barsloisnoch. It is close to the public road at a point where the latter bends and some 220 yards north-west of cross roads. No account of the excavation of this cist is preserved, but the superjacent moss has been removed, leaving the remains of the cist standing on the subsoil in what, in wet weather, is a circular water-filled basin. The bottom of the cist was probably about 5½ feet below the surface of the peat.

The cist is completely ruined, but the side slabs lie in approximately their original position, showing the axis to have pointed north-east. The slabs are of schist, one measures 5 feet 10 inches by 2 feet 3 inches, the other 5 feet 9 inches by 2 feet 5 inches. Both have clearly cut grooves 4 feet 3 inches apart, and one has an additional groove which has been placed inside the cist 8 inches distant from the adjacent groove. The end slabs and the cover lie close at hand, the latter measures 6 feet in length. Some 3 feet to the east of the cist is the arc of a circle formed by seven stones, of which five remain upright, sloping slightly inwards. They are narrow slabs, from 2 feet to 4 feet in length, 9 inches broad, and 5 inches thick; similar slabs lie on the other sides of the cist, suggesting that the circle has been much more complete than is now apparent.

Slabs can also be seen projecting from the moss several yards to the north-east of the cist, but digging revealed no cist or other construction at the spot.

About half an hour was spent at the site on 12th July.

8. *Cairn, Cairnbaan.*

About 170 yards south-south-west of Cairnbaan Hotel and on the opposite side of the canal, from which it is 35 yards distant, lies the cairn from which the hamlet takes its name. From the cist in this cairn was taken a slab which is now in the National Museum. It formed the west end of the cist and bears a diamond-shaped figure formed by six concentric incised lines.¹ The cist was said to have been built on the rock. As it is placed at the top of the cairn it seemed possible that what was taken for rock might be the large cover of another cist. To settle this point, and also to examine the remaining slabs for grooves or markings, the cist was reopened on 5th July. It was found to be built on the rock: the cairn, which is 12 feet in height and 40 feet in diameter with a flattened top 18 feet across, owes its height for the most part to its position on a natural rocky knoll. No markings were found on the slabs of the cist, which measures about 3 feet 6 inches by 1 foot 11 inches at the east end and 1 foot 3 inches at the west end. The axis points north-east. Riddling produced no relics from the soil in the interior.

9. *Cairn, Rhudil Mill.*

The site of a former cairn lies some 200 yards north-west of Rhudil Mill. It is placed in a small field almost surrounded by woods, about 80 feet above the plain and 150 yards distant from the public road. The cairn is entirely denuded of stones and has measured 60 feet in diameter. Three cists are reported to have been found.² The first contained a food-vessel; the second had fragments of an urn, unburnt bones, and a flint scraper; the third was empty. An hour was spent on 5th July examining two of these cists; the position of the third was not evident. Near the centre of the cairn lay a cist with the long axis north and south. It measured about 3 feet 7 inches by 2 feet 1 inch, but the north end slab was wanting. The south end slab was placed between the side slabs, which were not grooved. The other cist lay 2 feet to the west with axis pointing north-north-east. The east side measured 3 feet 6 inches and the west side 3 feet 2 inches; the north end 2 feet 2 inches and the south end 2 feet 8 inches. The end slabs were placed between the side slabs, but the latter were not grooved.

¹ *Incised Markings on Stone in Northumberland and Argyleshire*, p. 11, pl. xxviii. (1869). *Journ. Arch. Assoc.*, vol. xxxvi. p. 146 (1880).

² *Proc. Soc. Ant. Scot.*, vol. vi. p. 349 (1865-6).

10. *Cairn, Rhudil.*

This cairn lies on a partially wooded knoll to the left of the track from Rhudil to Baroile. It is a little to the south of a line connecting Rhudil Mill and Baroile, and is equidistant from them. The site is not marked on the Ordnance Survey map, and although the cairn has been destroyed and the cist wrecked there is no record of any examination of the site. About half an hour was spent at the cairn on 12th July. It measures 84 feet by 72 feet and is 6 feet high. Near the centre lies the cover of the cist; it measures 5 feet 9 inches by 4 feet 3 inches. Beneath it only one side slab remains, 5 feet 4 inches in length; the dimensions of the cist are thus unascertainable. The slab is not grooved.

11. *Cairn, Baroile.*

The next two cairns to be described are of one type, and are distinct from any others I have seen in the district.

About 320 yards south-west of the ruined buildings at Baroile lies a cairn on the crest of slightly rising ground (fig. 19). It is marked on the Ordnance Survey map, but although obviously disturbed, no account is on record of its previous examination. The work of clearing the cist and adjacent construction occupied three hours on 12th July. The cairn measures about 84 feet by 75 feet and is 6 feet in height; it is covered by a strong growth of bracken and grass. Near the centre lies a cist with axis pointing 24° east of north; there is no cover. The cist measures 5 feet 4 inches at the west side and 5 feet at the east, by 2 feet 8 inches at the south end and 1 foot 10 inches at the north. The angles are not right angles. The end slabs are placed between the side slabs, which are not grooved. To the north of the cist a slab 8 feet in length is placed on edge in rough alignment with the east side slab, but with its south end placed to the east of this slab and overlapping it. At right angles to this slab is set on edge a slab 2 feet in length, parallel to and 2 feet distant from the

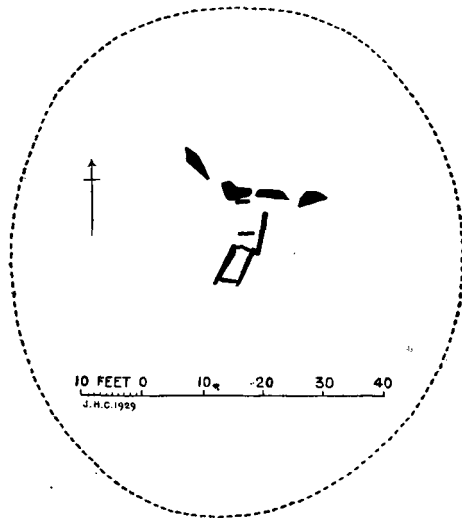


Fig. 19. Plan of cairn, Baroile.

The angles are not right angles. The end slabs are placed between the side slabs, which are not grooved. To the north of the cist a slab 8 feet in length is placed on edge in rough alignment with the east side slab, but with its south end placed to the east of this slab and overlapping it. At right angles to this slab is set on edge a slab 2 feet in length, parallel to and 2 feet distant from the

north end slab of the cist. To the north of this is a crescentic formation of four large boulders set upright or on edge, the concavity facing outwards. This is shown in fig. 20 where the figure behind indicates the position of the cist. The westmost of these boulders measures 6 feet 9 inches in length by 1 foot 10 inches in breadth and stands 3 feet 9 inches high. The second is 5 feet 3 inches by 2 feet 9 inches and is 3 feet 8 inches high. The third is 5 feet 8 inches by 1 foot 4 inches, height 1 foot 5 inches. The eastmost is 5 feet by 2 feet 2 inches, the height being 3 feet 6 inches. Close to the south of the second of the boulders is a slab set on edge 2 feet 2 inches in length. The cist, the



Fig. 20. Crescentic setting of stones at Baroile cairn, from the north-east.

ground between the cist and the boulders, and that immediately to the north of the boulders were examined by digging, but no other construction was found.

12. Cairn, Gartnagreanoch.

Gartnagreanoch lies fully 4 miles south-south-west of Poltalloch and on the opposite side of the Crinan Canal. It is quarter of a mile south-east of the north end of Loch Coille-Bharr.¹ The cairn stands about 50 yards to the east of the farmhouse; the ground falls steeply to the east.

The cairn is denuded (fig. 21) and measures about 33 feet by 30 feet. A cist, with axis pointing 37° east of north, occupies the centre. The north-east end slab is gone. The cist measures about 3½ feet in

¹ For the description of a construction in this Loch found by Dean Mapleton, see *Proc. Soc. Ant. Scot.*, vol. vii. p. 322 (1867).

length and is 1 foot 6 inches wide. The south-west end slab is placed between the side slabs without grooves. To the north-east of this cist is a crescentic formation of four large stones, after the plan of the Baroile cairn. The most northerly of these measures 4 feet by 10 inches and is 3 feet 10 inches high; the second, which has a slab placed at its west side, as at Baroile, measures 4 feet 5 inches by 1 foot 9 inches and is 5 feet 8 inches high; it is 2 feet 4 inches distant from the central cist. The third stone is 4 feet 1 inch by 10 inches and is 3 feet 1 inch high; the most southerly of the stones is 2 feet 4 inches by 1 foot and is 5 feet high: it abuts on the perimeter of the cairn. Immediately to the east of the most northerly of the stones digging revealed a cist measuring $3\frac{1}{2}$ feet by 2 feet, with axis pointing 67° east of north. The side slabs do not quite abut on the large stone, but there is no end slab at this part of the cist. The side slabs are not grooved, the end slab is placed between them.

The slabs used at this site have doubtless been brought from a cliff some 80 yards to the north, where many similar slabs lie among the debris.

The work, which was confined to the examination of the central cist and the area to the east of the concentric setting, occupied about two hours on 12th July. Two slabs protruding from the ground to the west and north-west of the central cist were found to be small and not connected with any structure.

The similarity of this cairn and that at Baroile to cairns in other parts of Scotland, such as Sutherland, Wigtown, and Kirkcudbright,¹ is clear. The type, however, does not seem to have been recorded before from this district of Argyll. The crescentic or recessed setting of large stones within the body of what seems to be a Bronze Age cairn suggests a connection with a similar setting characteristic of Neolithic burials.

13. *Sculptured Rock, Pottaloch.*

The morning of 10th July being wet, a couple of hours were spent below the shelter of a large tree, clearing the surface of an inscribed

¹ See *Ancient Monuments Commission's Reports: Kirkcudbright*, p. 159, fig. 122; *Wigtown*, p. 95, fig. 63; *Sutherland*, p. 155, fig. 62.

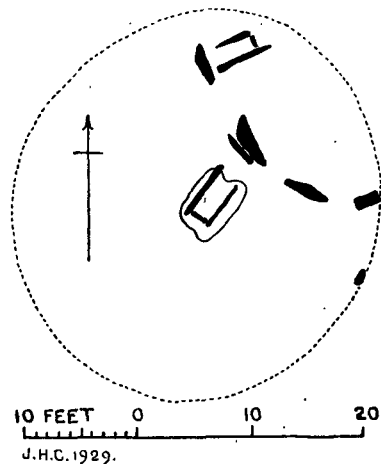


Fig. 21. Plan of cairn, Gartnagreanoch.

rock which lies at the edge of a wood 220 yards south-south-west of Poltalloch. The markings cover a surface of 15 feet by 12 feet, the rock sloping to the south-east. The figures include thirty-four cups having from one to five rings and a number of cups without rings. The largest cup measures $4\frac{1}{2}$ inches in diameter and the largest ring $33\frac{1}{2}$ inches. Unfortunately, time did not allow of a plan being made.

III. SITES EXAMINED BUT NOT EXCAVATED.

In the light of the long summer evenings it was possible after working hours to visit a number of sites in the neighbourhood. The most interesting of these may here be described.

1. *Cairn, Glasvaar.*

Glasvaar is a farm rather over a mile south-east of Loch Ederline. A denuded cairn 66 feet in diameter occupies the south-west shoulder of a ridge 100 yards to the south-west of the farm buildings. The periphery is marked by a ring of boulders, but there is no surface evidence of a cist. The site is shown on the Ordnance Survey map.

2. *Cairn, Carnassarie.*

On the Ordnance Survey map is shown the position of two standing stones 500 yards west-south-west of the ruins of Carnassarie Castle. On a knoll 140 yards south of the stones and some 50 feet above them is an unrecorded cairn 90 feet in diameter and 8 feet high. It is much denuded on the south and east sides.

3. *Cairn, Dun MacSamhainn.*

Half a mile south-west of the Carnassarie standing stones is another unrecorded cairn. The site is on a high point, called Dun MacSamhainn, with a steep descent to the east to the Kilmartin Burn and to the south to a small stream. The cairn is 65 feet in diameter, its height is 4 feet, many stones having been removed from it, especially at the south side.

4. *Cist, Upper Largie.*

This site is about 600 yards north-north-west of Kilmartin parish church near the point of a flat-topped promontory which represents the ancient 100-foot beach: a few trees mark the position. The cist, with axis pointing north-east, measures 3 feet 9 inches by 2 feet

4 inches at the south end and 2 feet at the north end. The south end slab is placed between the side slabs, but at the north end the east side slab abuts on the end slab. There are no grooves on the slabs, but the upper surface of the cover, which measures 6 feet 6 inches by 5 feet 2 inches by 8 inches, bears what may be a cup-marking. The site is not shown on the map.

5. *Grooved Cist, The Lady's Seat.*

On a conspicuous and sharply pointed summit 1200 yards west of the hamlet of Slockavullin and 1400 yards north of Poltalloch lies a cairn which was excavated by Dean Mapleton.¹ The site is within a wood rather over 500 feet above sea-level. When first excavated two cists were found, and between them was a skeleton which was thought to have been probably put there at the time of an earlier opening of the cists. One cist is still visible, with its axis pointing east-north-east; but the cover and end slabs seem to have been used in the construction of a seat which is built in the side of the cairn, commanding a magnificent view to the east and south. At the west end of the cist the side slabs have been distinctly grooved for the end slab. At the east end the slabs have been chamfered instead of grooved. The length of the cist between the grooves and the chamfers is 3 feet 6 inches, it is 2 feet wide at the west end and 1 foot 8 inches at the east end; the depth is 2 feet 5 inches. The stones of the cairn rise 1 foot 6 inches above the top of the side slabs. The grooves are $1\frac{1}{2}$ inch to 2 inches wide and $\frac{1}{8}$ inch deep. There are no cup-markings. The cairn measures 55 feet in diameter and is some 8 feet in height; much of its apparent height, however, is due to the abrupt slope of the ground.

6. *Grooved Cist, Rowanfield Cottage.*

In a clump of trees on a knoll half a mile east-south-east of Poltalloch and 300 yards south-west of Rowanfield Cottage is an isolated cist, the site of which is shown on the Ordnance Survey map. It is not placed on the crest of the knoll, but 26 yards to the north of it. The axis points north by east. The cist measures about 4 feet by 2 feet 7 inches, but the north end slab is wanting. The west side slab has a groove at the south end, in which the south end slab is placed. The east side slab abuts on the south end slab. There are no grooves at the north end of the cist. The cover measures 8 feet 1 inch by 4 feet 6 inches by 12 inches. No cup-marks are visible, nor is there any trace of a cairn.

¹ *Proc. Soc. Ant. Scot.*, vol. vi., Appendix, p. 58 (1864-5).

7. *Supposed Cairn, Kirnan Lodge.*

The Ordnance Survey map marks the site of a "cairn" $\frac{7}{8}$ mile north-north-west of Kirnan Lodge above Kilmichael Glassary. It is situated on the east slope of a *col* connecting two rocky knolls and measures 17 feet by 12 feet. It is about $2\frac{1}{2}$ feet in height, and an upright stone projects 3 feet 9 inches from the top. At the south-east end is a large rock or boulder. I incline to think this is not a burial cairn, but a heap of stones cleared from the surrounding land to suit it for cultivation. Several smaller, irregularly shaped heaps of stones lie not far off. These doubtless date from the period of occupation of a homestead, the foundations of which lie at the foot of the rocky knoll to the north-east and seem to be of recent origin.

8. *Fort, Lochan Add.*

On the crest of a ridge, rather over 100 yards north of the above "cairn" and some 650 yards south-east of Lochan Add, are the faint traces of a fort which has not been elsewhere recorded. The ridge is over 500 feet above sea-level. The fort measures about 50 yards by 28 yards, but the stony remains of the enclosing wall are only traceable across the ridge at the north-east end. The wall curves to the south-west on both sides of the ridge, but is soon lost on the very steep slope. It cannot be traced at the south-west end, but has doubtless crossed the ridge at the brow of an abrupt descent. The site and the character of the defences are similar to those of the fort of Binnein Mor a mile to the south-west. The latter has been described by Dr Christison.¹

9. *Stock Enclosures, Barnluasgan.*

Along the crest of a high wooded ridge which flanks the right side of the road from Bellanoch on the Crinan Canal to Loch Coille-Bharr are a series of circular foundations which are marked as "Circles" on the Ordnance Survey map.

The first of these constructions lies among heather and bracken in a slight depression near the north end of the ridge, rather over a quarter of a mile south-west of Bellanoch and about 250 feet above sea-level. The internal diameter is 48 feet, and the low enclosing mound of earth and stones measures 20 feet across. An entrance at the east side 3 feet 4 inches wide is marked by two large stones, one erect, the other fallen. Several large stones laid on edge mark the outer

¹ *Proc. Soc. Ant. Scot.*, vol. xxxviii. p. 221 (1903-4).

edge of the mound. Some 20 feet to the north-north-east, on the edge of the depression and about 4 feet above the enclosure, is a hut-circle 18 feet in diameter. Its situation commands a striking view over the estuary and Crinan Moss.

The second enclosure lies some 330 yards south by west in a slight depression on the crest of the same ridge. It is 45 feet in diameter. Most of the large enclosing stones are set on edge, but a few are upright; to these have been added many smaller stones, making an enclosing mound 3 feet 6 inches in breadth. The original entrance is not clearly traceable; the interior has been levelled by excavation at the north side. The circle lies among birch trees and is much obscured by bracken.

The third construction lies a quarter of a mile to the south-south-west and rather more than that distance north by east of Barnluasgan. It looks directly down on the north-east end of Loch Linne. The site is immediately outside the wood which covers the steep slope and is close to the crest of the ridge. The circle is 54 feet in diameter; several stones about 2 feet high, set on edge, mark the periphery, and one boulder 4 feet 4 inches high, set on end, probably marks the entrance. The site is hidden in bracken.

Some 650 yards to the south-west and 300 yards west of Barnluasgan lie, on a lower continuation of the same ridge, the fort and cairn of Barnluasgan described and figured by Dr Christison.¹

The fourth and last of these circles is reached 700 yards south-west of the fort and immediately after crossing the road to Tayvallich. The site is on low ground, sheltered from the west by a high bank. Only half of the construction remains, consisting of a semi-circular or rather semi-oval setting of stones, mostly set on edge. The remainder of the circle has probably been used for repairing the road, which passes close to the site, or for building walls. Two of the stones are upright, one at least of which probably marks an entrance; and one or more of the large boulders was probably *in situ* when the construction was made.

This construction has been regarded as a Stone Circle of the Bronze Age and was described and figured as such by Dr Christison:² he remarks, however, that it is unique in Scotland in its form and construction. I regard it as of the same character as the constructions already described. The mound with stones set on edge, the upright gate pillars, the sheltered position, and the adjacent hut-circle, all point to these having been stock enclosures rather than places either of burial or of defence.

¹ *Proc. Soc. Ant. Scot.*, vol. xxxviii. p. 237, fig. 28, 1903-4.

² *Ibid.*, p. 140, fig. 17.

Notes on Cists with Grooved Slabs.

As the result of the season's work the number of cists on record having the side slabs grooved near the ends has been brought up to nine. All of these are within a radius of one mile from Poltalloch. The occurrence in this small area of so many cists exhibiting this characteristic is the more striking when we consider that the only other record for the British Isles is from Scilly.¹

Three of the cists had grooves in all the corners. In one of these the end slabs were placed in the grooves, in another they were placed an inch or two outside the grooves at both ends of the cist. In the third case the end slabs were wanting.

One cist had grooves in three corners, the slabs being placed in the grooves.

In three cists there were grooves in two corners at the same end. In one case the slab was in the grooves, in the other two no end slab remained.

Two cists had a groove in one corner only. One had the slab in the groove, the other had the groove outside the slab.

In two cases an additional groove had been cut outside that in which the slab was placed, and in two cists a short groove was cut, outside the cist, for 8 inches only, at the top of the slab. The purpose of these additional grooves is not evident.

¹ On one of the stones forming the passage to the burial-chamber at Dowth, near New Grange, there is a perpendicular groove measuring 8 inches wide and 3 inches deep. See *New Grange*, p. 53.