

V.

NOTES OF THE DISCOVERY AND EXPLORATION OF A CIRCULAR FORT
ON DUNBUIE HILL, NEAR DUMBARTON. BY ADAM MILLAR,
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Geographical position.—The hill known locally as Dunbuie or Dunbowie is $1\frac{1}{2}$ miles, as the crow flies, east of Dumbarton Castle, and about 3 miles west of the Roman Wall, where it terminates on the north shore of the Clyde, about $4\frac{1}{2}$ miles above Dumbarton Rock, the great natural fort, which is mentioned in all the ancient records of the early inhabitants.

The hill is 500 feet high, and forms the eastern end of a ridge about half a mile in length; the end of the ridge slopes down to a shoulder, from which Dunbuie rises, so that the ridge is separated from the hill by a broad, hollow depression.

Before the excavations began there was nothing to indicate a building of any kind; the hill sloped upward somewhat steeply all round; there are no trees or bushes on the hill, only a thick turf and some brackens.

There was a slight hollow on the summit: this had given rise to an idea that the hill was an extinct volcano, the hollow being, of course, the crater.



Fig 1. Dunbuie Fort, after excavation.

Description and Dimensions.—The fort (fig. 1) is a circular wall of dry-stone building, 13 feet 6 inches in thickness, enclosing a circular space 30 to 32 feet in diameter. There is only one doorway or entrance, 3 feet 2 inches wide, and on the level of the ground.

There is nothing remarkable about the fort itself: the form and dimensions, and also the position on a hill, are found frequently amongst the forts and brochs of the North of Scotland.

The fort seems to have been so thoroughly destroyed that no part of the wall remained above the mass of its debris. The height from the top of the wall to the rock of the hill is only 3 feet 6 inches at the highest point, while at the part where the entrance was found the height is only 18 inches.

The rock of which the hill is formed is an igneous formation, but the wall is built of a laminated sandstone, of which there is plenty within the radius of a mile.

There was nothing to show that the wall had chambers formed in its thickness, except that there are indications of guard chambers on either side of the entrance,—that on the north side had a floor of flat stones, resting on a bed of compact earth. The southern chamber had the natural rock for its floor; the remains of a fire were found in this chamber, along with charcoal and partly burnt bones.

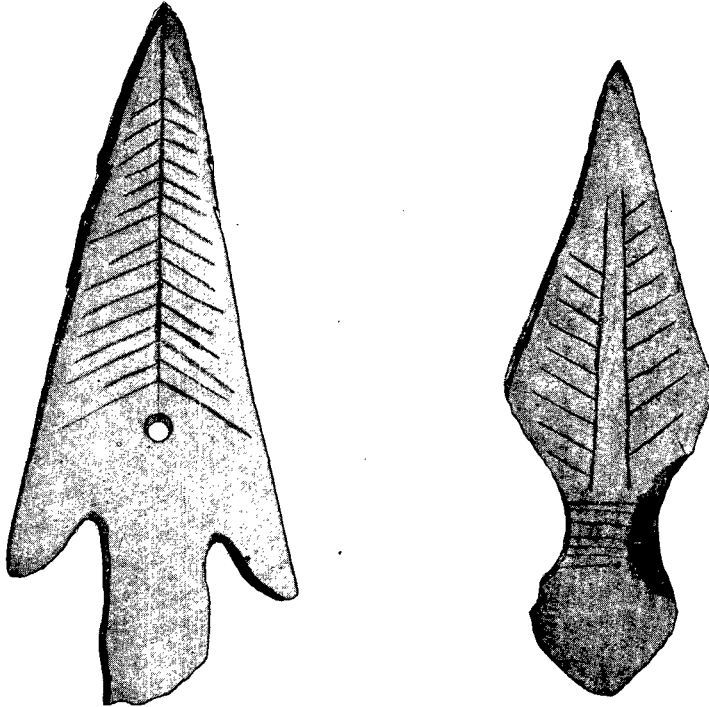
No Secondary Occupation.—There was nothing in the interior of the fort to suggest a secondary occupation—no dividing walls. There was no appearance even of the rock having been levelled in the interior; in places there was some appearance of flat stones having been placed so as to form a kind of flooring, but the rock projected above this in the centre.

The fort has been examined very thoroughly by picking out the stones in the interior one by one, and riddling the fine soil and small stones.

The same treatment has been applied to the refuse-heap which was found on the outside, and the result of the search is a very remarkable collection of weapons, implements, ornaments, and figured stones.

No Metals or Pottery.—This fort is remarkable for the complete absence of metal implements—in fact, no trace of metal of any kind has been met with.

The same has to be said of Pottery—we have not found a single vessel of earthenware, nor a single fragment of pottery, Native or Roman; and this as a result not of a superficial examination, but after a very thorough search in which many tons of earth and small stones have been riddled. I need not point out that this marks a very striking difference



Figs. 2 and 3. Spear-head-shaped Implements of Slate, ornamented with incised lines.

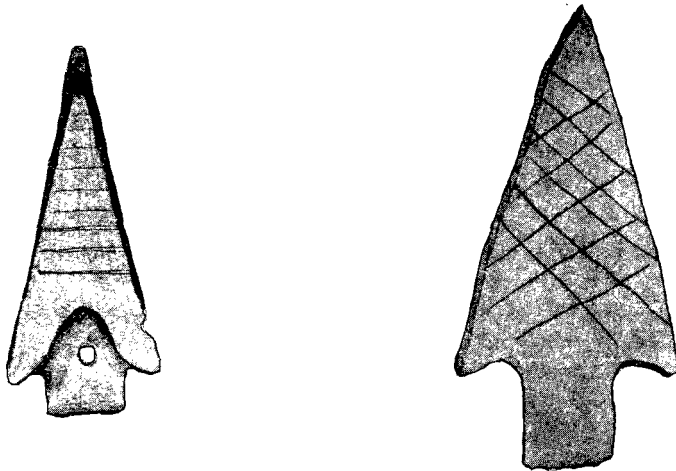
from the articles found in the numerous circular forts or brochs in the North of Scotland, and may indicate a greater antiquity for the class of ancient buildings represented by the Dunbuie Fort.

Implements of Bone.—We have found two implements of bone, which may be arrow-points: these are not barbed, but simply pointed

like a nail; they are about $1\frac{1}{2}$ inches in length and $\frac{1}{4}$ of an inch in breadth.

We have also found a Borer or Awl of bone: it is well made and in excellent preservation; it is $2\frac{3}{4}$ inches in length, and the broad end is nearly half an inch wide; it has a hole in it at the broad end, as if for a thong or cord; it is much too broad to have been used as a needle.

Stone Implements.—We have found several Stones fashioned in the shape of Spear-heads—all of slate—none of flint. One specimen (fig. 2) measures 6 inches in length by 2 inches in breadth, with well formed barbs; it has been finished by grinding with a stone, and not by



Figs. 4 and 5. Spear-head-like Implements of Slate, with ornamentation of incised lines.

chipping; it is perforated in the middle of the blade, and has a chevron-like ornamentation on its broad surface. Another (fig. 3) is of the leaf shape, widest in the middle and tapering back to the stem. This one has incised ornamentation, something like a tree. Other examples, as figs. 4 and 5, are not so large, and occasionally the barbs are more elementary in form. In all we have nine examples, all of slate; some of these are broken; in one case the break must have been

done in the excavation, but the piece broken off could not be found, even with a long and patient search; probably it was so splintered as not to be recognisable.

Another weapon of slate is a Knife: it unfortunately has been recently broken: it has not been shaped by grinding, but by chipping. This knife has a feature common to all these slate weapons,—they seem to have been saturated with oil or fat, as water does not adhere to them, but runs off, as from a greasy surface.

Of Flint there is only one example of what might be supposed to be an implement. It is a piece of flint about $1\frac{1}{2}$ inch long, somewhat quadrangular in shape, the sides less than $\frac{1}{2}$ inch wide, the one end roughly broken, the other coming abruptly to a naturally shaped edge. It was supposed to have been inserted into a shank-bone $4\frac{1}{2}$ inches long, to serve as a handle. The bone is much damaged by burning, but sufficient remains to show that it was a leg-bone, probably of a sheep. This implement (if it is an implement) was found in the refuse-heap. The careful search of the interior produced only two more splinters of flint.

The Weapons, with only three exceptions, are ornamented with straight lines, of which the "chevron" appears most frequently; there is also the herring-bone effect, and a diamond effect produced by a series of parallel lines crossing another series at a more or less acute angle.

We have found several examples of Stone Pounders—waterworn stones of a handy size and shape, without any indications of workmanship upon them, but chipped and abraded at the ends from use as hammers or pounders. A perforated stone, something like a hammer, has been found, but the hole is too small in the centre for a handle to have gone through; it may have been a sinker.

We have also found a number of stones which have evidently been used for rubbing or smoothing; and a number of stones of an oblong form, apparently used as grinders or as whetstones.

We came upon the upper stone of a Quern or hand-mill, of rather a rude type, with the central aperture for feeding in the grain, and another hole nearer the periphery for inserting the handle. This was

found in the interior of the fort. We did not find the corresponding lower stone. A second upper stone has been found, but much damaged. No *whorls* or weaving-combs have been found.

Small Cup-marked Stones.—Another group of stones show markings of cup-and-ring order. This is specially interesting from the fact that

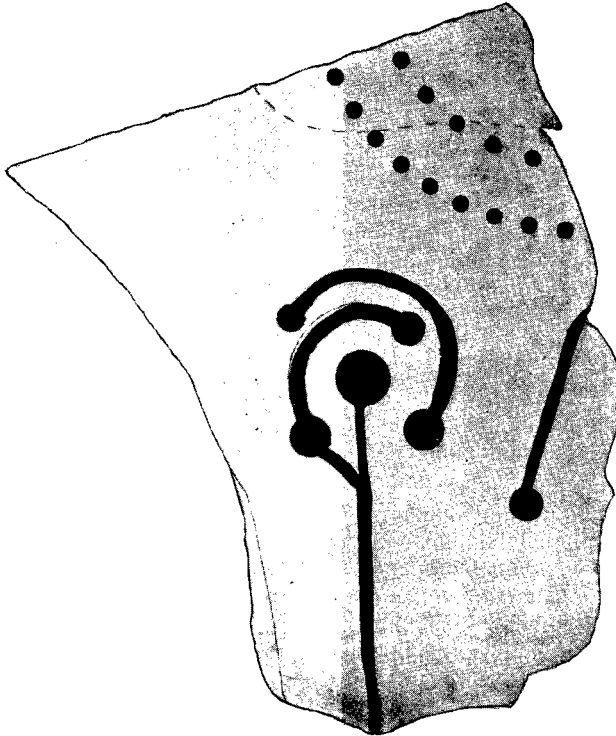


Fig. 6. Stone with cup-markings.

in this district there are two striking examples of rock surfaces with cup-and-ring sculpturing, viz., that at Cochno, described in the *Proceedings*, vol. xxiii., p. 130, and the recently discovered group at Auchentorlie, almost within sight of Dunbuie, described in this present volume

p. 205. One class of these marked stones consists of pieces of laminated sandstone the same as is used in building the wall of the fort. The sculpturings are cups, and cups with ducts, and cups with rings. The largest stone so sculptured (fig. 6) is $8\frac{1}{2}$ inches by $6\frac{1}{2}$ inches, and has six shallow cups of about $\frac{1}{2}$ inch in diameter; semicircular ducts or channels connect the four cups surrounding the central cup in alternate pairs, and one pair has also a connection with the duct leading from the central cup. Fourteen small cups form part of an incomplete double circle at one corner of the stone, and a simple cup with duct is on the same side.

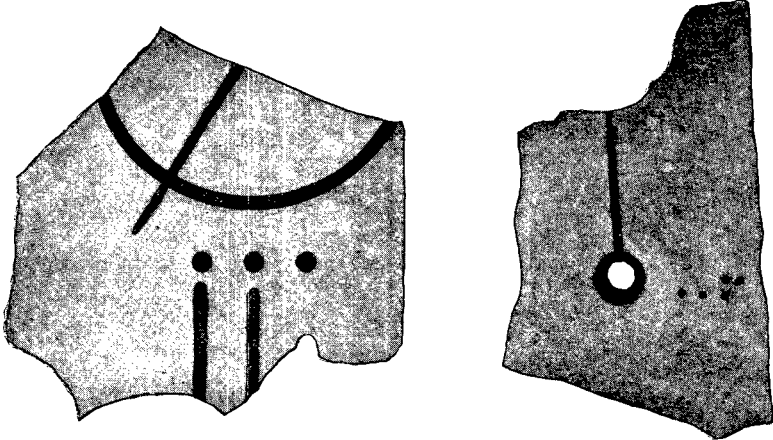


Fig. 7. Stone with markings of circles, straight lines, and cups.

Fig. 8. Stone with perforation and duct, and group of very small cups.

Two stones have cups but no connecting duct; in these examples the cups have been made by the same method that has been employed on the sculptured rock surfaces at Auchintorlie and at Cochno—that is, by a pick action, not rubbing or scraping.

Other three stones are figured with circles and straight lines running through them: in some of these the stone is only a fragment, and does not show the complete circle, as in fig. 7, while fig. 8 shows an example of a perforation with a duct and a group of very small cups. In this set the markings have been produced by another process than the more

primitive pick action—the lines are smooth and even, as if made by rubbing or scraping. One example (fig. 9) shows the duct as continued beyond the circle side of the circle, and forming an approach to a Z-form on the outside.

These stones are in all cases flat pieces of sandstone. I have now to describe four examples of cup- and ring-sculpturing on the rounded surfaces of waterworn stones.

The largest example is a piece of a coarse-grained stone, oval in shape, $3\frac{1}{2}$ inches long, $2\frac{1}{4}$ inches broad, and 2 inches thick: this has a clearly defined cup on its face, and a ring surrounding the cup.

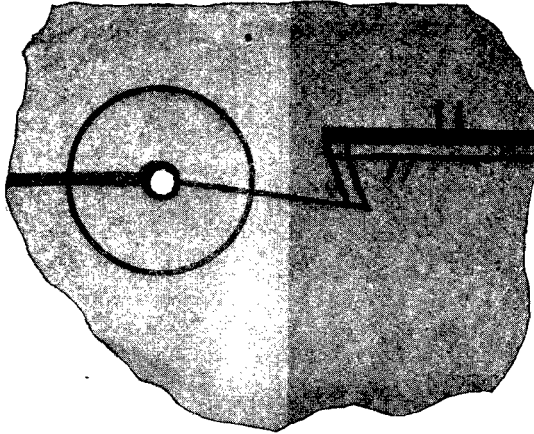
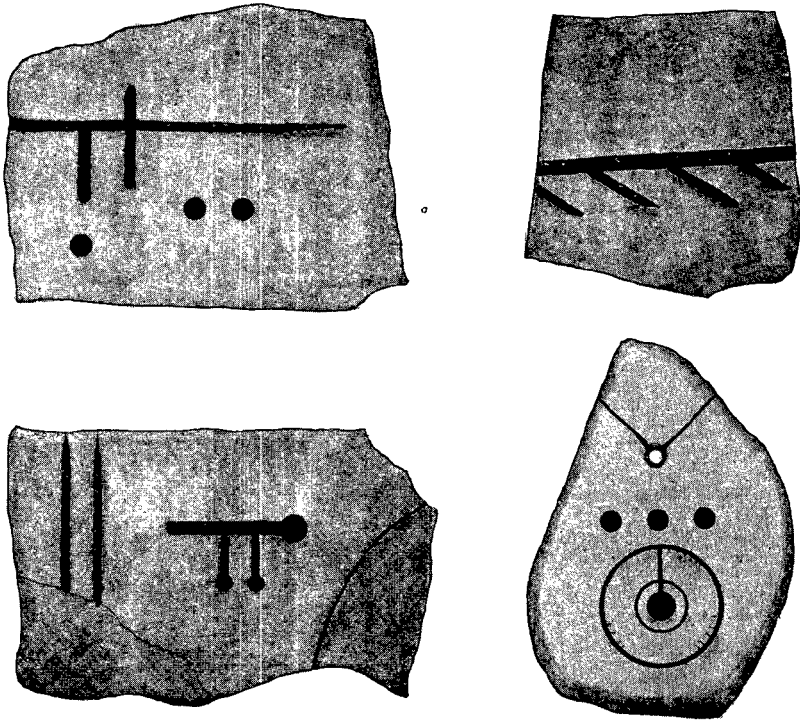


Fig. 9. Stone with circle and zigzag duct.

There are two white pebbles of fine texture, almost crystalline: each has a cup and ring inscribed upon it by a clear, sharply-cut line; the duct is also clear and sharp, and extends considerably beyond the circle. One of these has a leaf-like figure incised on the reverse side. These stones are only $1\frac{1}{8}$ inches in length and $\frac{3}{4}$ of an inch in breadth.

Another stone is still smaller: it is nearly spherical, and has a circle with a cross in it. This pebble is only $\frac{5}{8}$ of an inch in diameter.

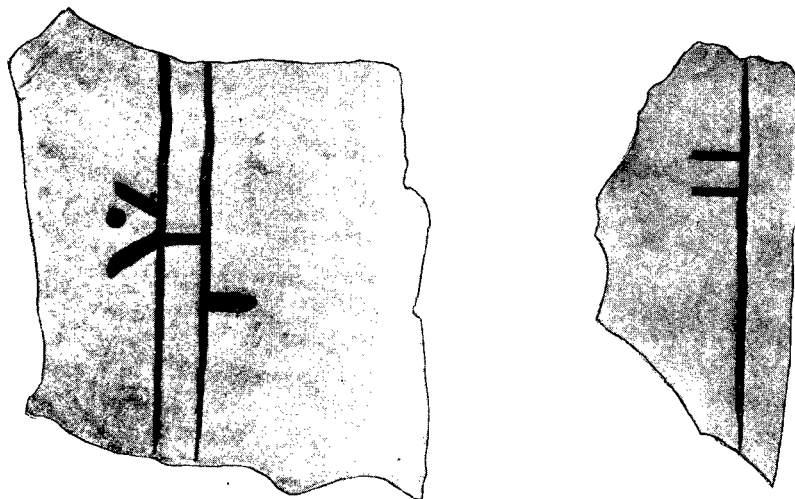
Another waterworn stone (fig. 13) is about $3\frac{3}{4}$ inches long and $2\frac{1}{2}$ broad and $\frac{1}{2}$ inch thick. At the narrow end a hole has been bored, and appears to have been made so as to permit a cord or thong to pass through it, as if it were hung round the neck. The figuring on this stone is a deep, clearly cut cup, with a clearly cut duct.



Figs. 10, 11, 12, 13. Figured Stones.

A ring is cut round the cup, and another ring much larger encloses the smaller one. The outer circle has markings of short, straight lines going inward from it; this detail is quite unique in cup-and-ring-markings. Above this outer ring three deep cups are formed, arranged in a straight line.

We have, then, in this fort a considerable range of stones bearing cup- and ring-markings, and showing three distinct kinds of workmanship. The larger examples are made by blows of a sharp-pointed implement, just as similar sculpturings have been made on the large rock-faces at Auchintorlie and at Cochno; then we have examples of a smaller size, but the ducts, rings, and cups have been made by some form of scraping or rubbing, quite different from the pick action; and lastly, we have two very hard stones, in which the lines are produced by a single clear cut, different from either rubbing or scraping.



Figs. 14, 15. Figured Stones.

It could not be without a purpose or object in view that so many examples of careful, skilful, and tedious workmanship were executed. What that object or purpose was we do not know. Another class of figured stones presents markings which resemble nothing so much as Oghams, although they do not seem to be true oghams. There are five stones so marked, and on three of them (figs. 10, 12, and 15) the same kind of figure occurs, viz., a stem-line, with two short lines drawn at right angles to it. In some cases these groups of lines are accom-

panied by small cups or dots, as in figs. 10 and 12, and in one case, fig. 11, there are four lines impinging obliquely on the stem-line. The stones on which these markings occur are mostly fragments, and certainly in some cases they have been broken after the markings were made on them, but we have not found any two pieces to fit together.

Figures produced by Cup-markings.—There are two stones not yet

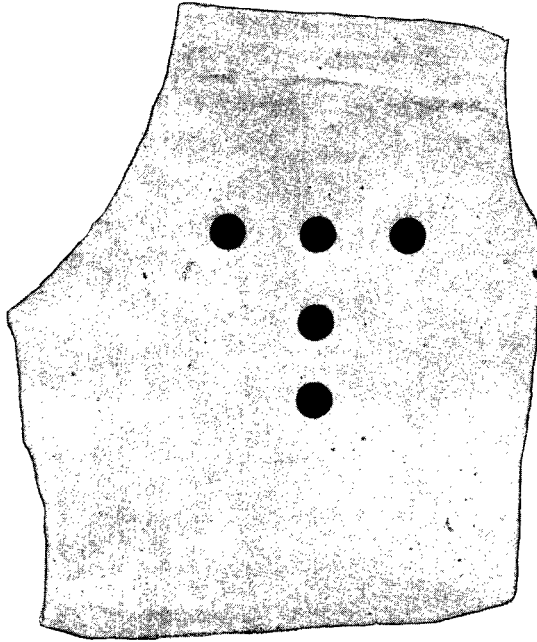


Fig. 16. Stone with cup-marks arranged in T-shape.

described; for although they are cup-marked stones, it is not so much the markings as the figure or form in which the cups are grouped that makes them different from all the other figured stones.

In one stone (fig. 16) the cup-markings are so placed that they make a figure like the letter T,—the vertical line being formed of three cups,

and the horizontal line also formed by three; the cups are all of one size and arranged with perfect regularity.

The other stone (fig. 17) has cup-markings showing greater complexity;

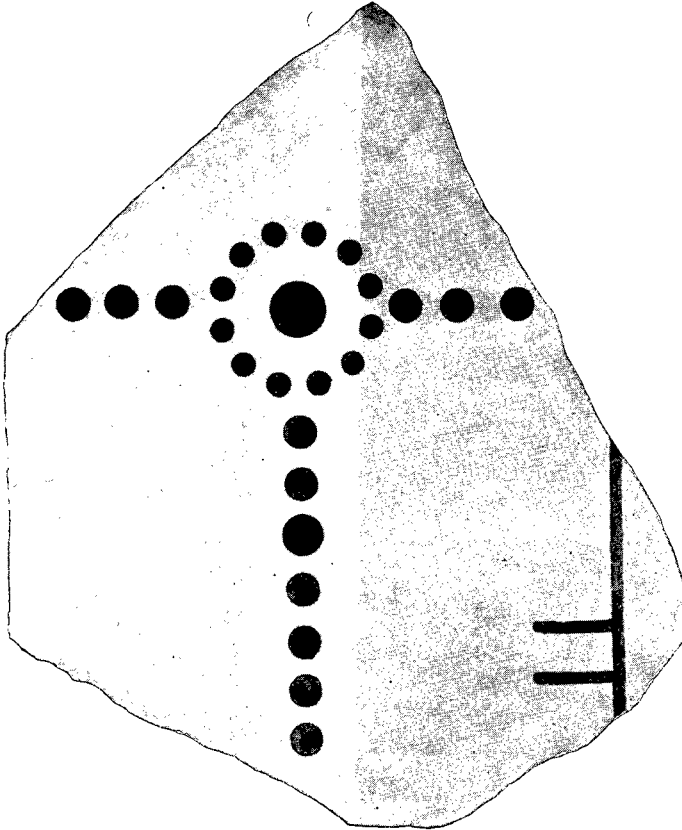


Fig. 17. Stone with peculiar arrangement of cup-marks.

the figure produced by the cups is also of a T-form, but in addition a circle of cups is formed so as to encircle the point where the vertical shaft joins the cross arm. The cups are not uniform in size; the cup

in the centre of the circle is of a large size, while the cups which form the circle are smaller, and those which form the shaft and cross arm are of uniform size, but intermediate between the small cups of the circle and the large central cup.

Stone Ornaments.—There remains yet another group of figured stones. They are of the nature of ornaments.

One is a flat piece of cannel coal (fig. 18) shaped somewhat like a

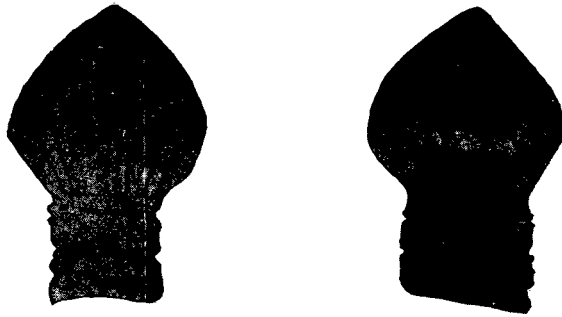
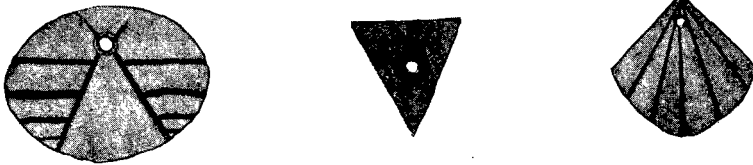


Fig. 18. Ornament of cannel coal.

blunt spear-head, and ornamented on one side by a series of deeply cut lines or grooves radiating from the stem. On the other side the ornamentation takes the form of chequer work.



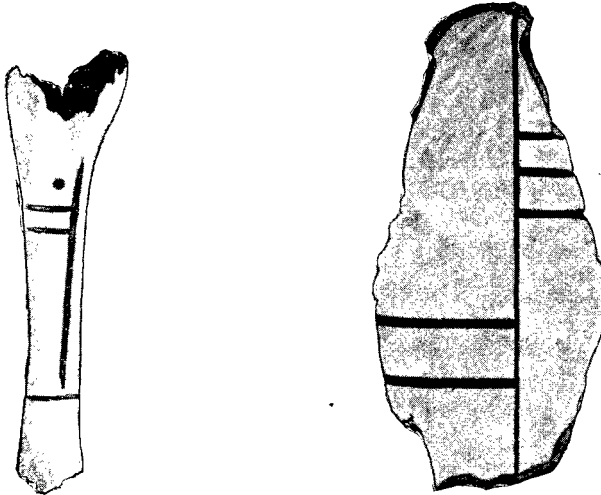
Figs. 19, 20, 21. Stone Ornaments.

Another is a small, oval, waterworn slate stone (fig. 19), split through so as to give a broad, flat surface. The ornamentation consists of a group of straight lines, but giving a rather artistic effect. The stone is perforated, apparently for suspending by a cord, as is also the case with fig. 20, which is of triangular shape, formed of cannel coal.

Another stone (fig. 21) is a piece of slate of a fan-shape, with radiating grooves, also with a perforation for suspending.

Another stone is a splinter of slate with two holes in it, and each of these has a sort of duct or channel clearly defined. The ornamentation here consists of a straight line with a number of sloping lines above it: one-half of these slope towards the right hand, the other towards the left.

Other fragments of stone bear ornamentation all formed of straight lines. Some fragments of bone (figs. 22 and 23) have also these straight



Figs 22, 23. Figured Bones.

lines cut upon them. As already stated, nearly all the objects described show ornamentation produced by straight lines.

A number of shells have been found: in nearly every case holes have been bored in them, and some attempt at ornamentation has been produced by cutting straight lines in the pearly inner surface of the shells.

Food remains.—It only remains now to state what indications have been found with regard to the food used by the dwellers in this fort.

As already stated, two quern stones have been found.

In the interior of the fort we found the remains of several fires. These consisted of a few boulders, somewhat small in size, arranged in a small circle, and surrounded by fragments of partially burnt charcoal and numerous pieces of animal bones: these boulder-stones in many cases were split and cracked by the heat: in the refuse-heap a very considerable quantity of these fire-cracked stones have been found.

A careful examination of the pieces of bone may decide the animals to which they have belonged, but which I leave for some expert to do. I may mention, however, that nothing to indicate a skull nor even a jaw-bone has been seen, though we found a number of teeth. Several portions of the antlers of red-deer were easily recognisable.

Of fish bones we have not found a single example. Of shell-fish shells the quantity is very small indeed—five oyster-shells, one cockle-shell, and three limpet-shells. The mussel is represented by two fragments only, while of the whelk or periwinkle there is not the slightest trace. It is to be remembered that nearly all those shells bear marks of ornamentation.¹

There remain only two items to complete the account of the different finds. An implement about 4 inches long, $1\frac{1}{2}$ inches broad at one end, the other end is narrower and thicker; it is the only example which suggests the familiar Stone Celt. From its comparatively small size it is more of a scraper than a Celt, the broad end is abraded and chipped by use, there is no sign of workmanship on it except a chevron-like figure on one side. It was found in two pieces, and appears to have been split by the action of fire.

Quite a large number of waterworn stones have been found which may have served as missiles: they are not native to the hill, but may

¹ A remarkable specimen of a sculptured limpet-shell has been found, having on its inner surface a very good representation of a human face. The eyes are represented by two holes, the nose by sharply cut lines, and the mouth by a well-drawn waved line—the curves which we call Cupid's bow being faithfully followed. There is nothing at all of an archaic character, however, in this example of shell-carving. We found it in the interior of the fort; it was one of the early finds—nothing like it has been found since; at the same time we have no reason for assuming that this shell was placed in the fort on purpose that we might find it. *The fact that it was taken out of the fort is all that we say about it.*

have been got on the shore of the Clyde, or in the beds of the numerous burns in the neighbourhood. They are of a globular shape, smooth, hard, and heavy.

Summary and Conclusions.—The excavation of Dunbuie has extended over a period of nine months. It has been carried out by the Helensburgh Naturalist and Antiquarian Society, of which society I am one of the secretaries. The presence of signs of building on the crest of the hill was first observed by one of the members, Mr W. A. Donnelly, of Bowling. As no tradition of any building was known, the secretaries resolved to have it examined by excavation. It was fortunate that we did not know that the Ordnance map has recorded "Ruined Watch Tower" on the hill, otherwise we might have let the site alone. We applied for liberty to examine the remains of the buildings, and the owners of the lands, Mrs Campbell of Barnhill and her daughter Mrs Heriot, most readily gave us permission. Lord Overton, who held the shootings on the hill, also gave his consent, and this important addition to the Prehistoric Forts of Scotland has been the result.

The finds which this excavation has produced are so different from the recorded productions of other circular forts, that it is obvious that the precise period or age to which they belong will be difficult to determine. The articles found are strongly indicative of a much earlier period than post-Roman—they point to an occupation by a tribe in their Stone age. For although the absence of metal is not in itself sufficient to infer a Stone age, when we find so many weapons, cutting implements, and personal ornaments of stone, and none of bronze or iron or any other metal, we have presumptive evidence that this tribe had not acquired the everyday use of metals; the total absence of pottery is another evidence of a very early stage of civilisation. Earthenware vessels are easily broken but their fragments are almost imperishable, yet we have not found a particle of pottery of any kind. There is no trace of the Roman civilisation amongst these productions, although the fort was unmistakably within the sphere of such influence.

In the face of these facts, it is not easy to assign a post-Roman age for this particular fort, whatever may be the case with respect to the brochs in the North.

But the absence of Roman influence is not so startling as the fact that there is nothing in the productions of this fort to show the influence of the Celtic civilisation.—The ornamentation is not Celtic but pre-Celtic. Both the Roman and the Celtic civilisations were foreign in their origin. The Celts in Britain were skilled workers in metals before Julius Cæsar landed ; they had established themselves as conquerors several centuries before the Roman invasion. Yet their influence, however dominant it was in the southern end of the island, may not at this time have reached the wild native tribes who lived by the chase in the rugged hills and closely grown woods of Dumbartonshire.
