

IV.

NOTICE OF THE EXCAVATION OF TWO CAVES, WITH REMAINS OF EARLY IRON AGE OCCUPATION, ON THE ESTATE OF ARCHERFIELD, DIRLETON. BY JAMES E. CREE, F.S.A. Scot.

In a small bay on the Haddingtonshire coast, about a mile to the west of Fidra Point, and nearly opposite the island of Eyebrochy, is situated what has long been known locally as the Smugglers' Cave. This appellation, it need hardly be said, is common to many similar caves which occur on the rocky shores of our coasts. If, however, the cave above mentioned were ever used by the smuggler as a place in which to conceal either himself or his contraband goods, it appeals far more to our interest as the habitation of people of a remote age.

Having long entertained a desire to excavate this cave, I placed myself in communication with Mr Hamilton Ogilvy, the proprietor of Archerfield, on whose estate the cave is situated, and he very readily granted me permission to commence work.

The geological formation of the coast at this point is volcanic ash, and the cave has been cut out by the action of the sea during the period of the formation of the 25-foot beach. The entrance to the cave (fig. 1) is on the east side of a rocky bluff which stands out from the land and rises to a height of about 50 feet above high-water mark. A bank of sand overgrown with bent grass and moss extended from the higher level to the beach, and in its downward slope had almost entirely blocked up the mouth of the cave. Indeed, at the entrance (fig. 2) one had to crawl in on hands and knees for some distance, but once past what may be called the entrance proper, one had no difficulty in standing upright.

The work of clearing away the sand from the mouth of the cave was one of no small magnitude, as the immense accumulation from the large bank above mentioned kept continually slipping down; but after about three weeks' hard work, of sometimes one man and sometimes

two, this was finally accomplished. In the process of clearing away the sand from the mouth of the cave—which measures 30 feet across—it was found that a rubble wall (fig. 3), constructed of flat stones laid in brownish sandy soil, had been built across the entrance. This wall, which has a slight batter, is 5 feet 6 inches in thickness throughout,

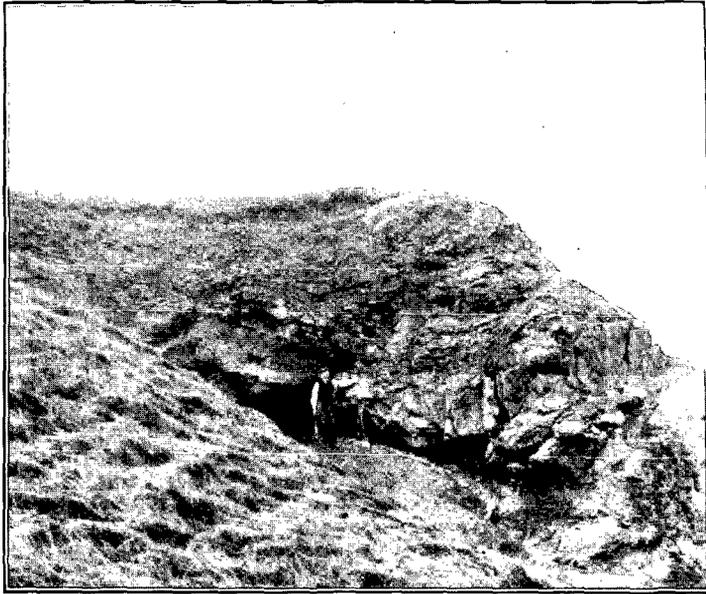


Fig. 1. Rocky Bluff showing entrance to the Cave.

and presents many interesting features. Originally, it had probably been considerably higher, and may even have reached the natural roof of the cave, thus completely enclosing it. Through time, however, demolition had taken place, until the blown sand had at last enveloped it, and arrested further destruction.

A doorway, measuring 4 feet outside in width, and increasing to 4 feet 5 inches inside in width, had been left in the wall; but this has at some later date been built up with a wall of rough stones 3 feet

in height, 2 feet 3 inches in thickness at the base, and tapering to 1 foot 5 inches at the top. On the north side of this doorway two bar-holes exist, one above the other. The position of the lower one, which is intact, is 3 feet 4 inches from the entrance, and 2 feet above

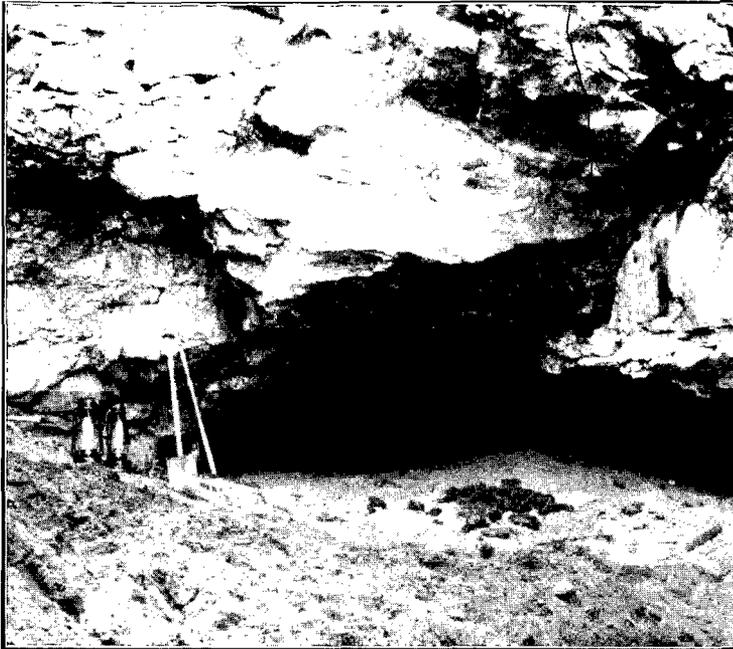


Fig. 2. Entrance to Cave.

the foundation. Of the upper one, owing to the more ruinous state of the wall at the entrance, only 16 inches remain, at the extreme north end. These bar-holes measure 5 inches in width by 7 inches in height, and they run back into the wall a distance of 9 feet.

At the north end of the wall, and as close to the rock as possible, a window, or lookout place had been left. From the inside, the wall at this point had been thinned to about 3 feet, and as the rock behind

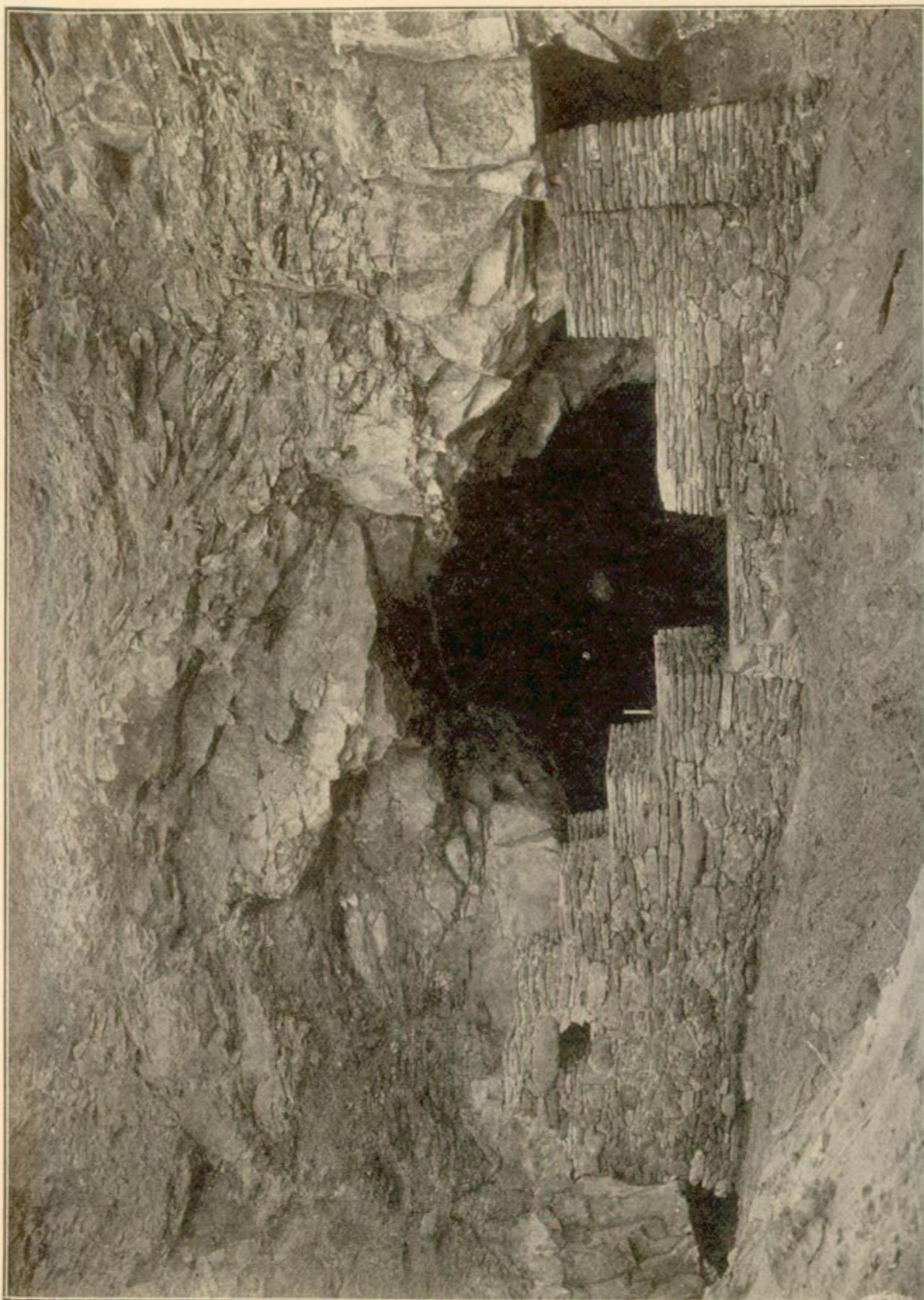


Fig. 3. View of the Cave showing the wall across the mouth.

this extended slightly into the cave, a small bay or recess was thus formed. The thinning of the wall enabled a more extended view of the coast to the east to be obtained. To the outside the window was scarp'd, and owing to the advantage that had been taken of the natural configuration of the rock behind the window it was impossible from the outside to get a view of the interior of the cave.

To the south or landward side of the doorway the wall on the inside is also of great interest ; two fireplaces, or ovens, being recessed into it, as shown on the section in the accompanying plan (fig. 4). The first fireplace is 4 feet 6 inches from the inside corner of the doorway. It is square at the back, measures 2 feet 5 inches in width, 1 foot 10 inches in depth, and 2 feet 2 inches in height. A small pillar, 1 foot 2 inches in width, separates this fireplace from the second one. This latter has a slightly rounded back, is 2 feet in width, 1 foot 8 inches in depth, and 2 feet 1 inch in height. Both fireplaces are provided with substantial lintels, and the hearths are paved with small irregular stones. The flue of the first-mentioned fireplace is taken 11 inches vertically, and then diagonally through the wall to the south-east a distance of 5 feet 10 inches, at which point it measures about 10 feet from the entrance and about 5 feet above the foundation of the wall. The hole at the point of exit is nicely squared, and is provided with a lintel. The second flue has been taken nearly vertically to the outside, where it has probably had an exit against the slanting rock which comes down from the roof of the cave above it.

From the second fireplace the wall is continued a further distance of 10 inches towards the south, where a recess 1 foot 1 inch in depth and 3 feet in length is formed. This point is the termination of the wall to the south, and the rock here slopes rapidly down to the floor of the cave. A space 3 feet in width, however, remains between the wall and the rock ; and as flat stones of considerable size laid horizontally were found here, this may have been used as a place of exit in time of need.

Immediately in front of this exit, to the outside, is a large rock 6 feet in length, standing on edge and running nearly parallel with the

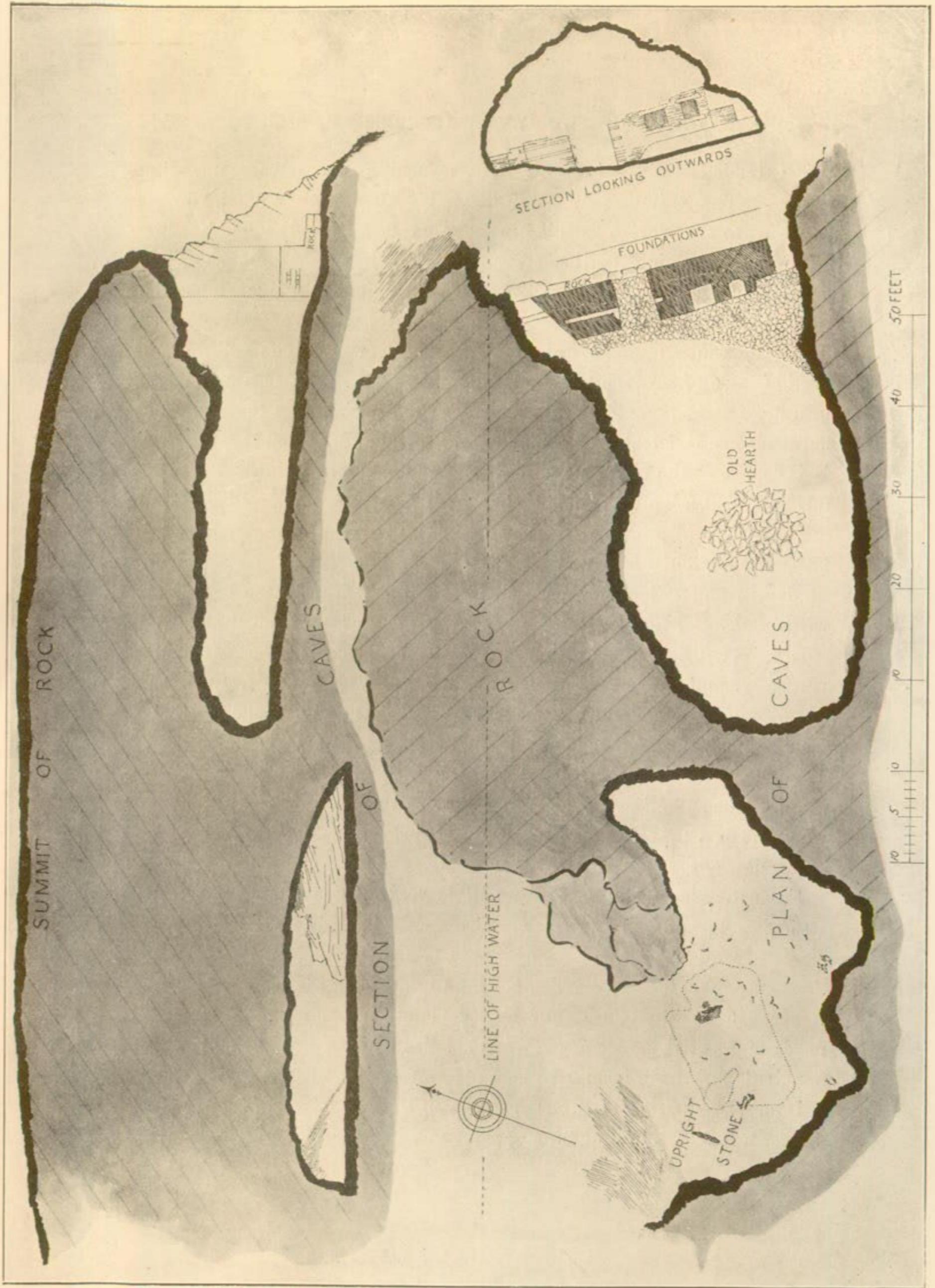


Fig. 4. Ground-plan and Section of the two Caves, by Mr Thomas Ross, Architect. (The line of high water has relation to the Section only.)

wall. Between the rock and the wall is a narrow passage-way, which at a point opposite the exit is 2 feet in width, but at the entrance only 1 foot in width. This passage-way was laid with a number of flat stones.

Built in, and forming a part of the jamb of the first-mentioned fireplace, is a block of sandstone, which had been used to sharpen tools on. It is 1 foot 5 inches in length, 10 inches in height, and 3 inches in thickness.

This cave, which is shaped like an elongated horse-shoe, has its long axis from east to west. It measures 47 feet from the inside of the wall at the doorway to the extreme back, and about midway between the entrance and the back it measures 25 feet across. The natural floor of the cave dips considerably towards the south, and also towards the east or entrance; and a particularly marked depression exists in a triangular space in rear of the southern portion of the wall. This depression had been filled in with a number of large flat stones of irregular shapes placed close together, smaller stones having been inserted between in order to fill up gaps. Above this, soil and stones had been placed; and finally, on a level with the hearths of the fireplaces already mentioned, cobble-stones had been carefully laid. This method of filling up the depression served the double purpose of draining away any water which might accumulate, and also of raising the floor in front of the fireplaces to a convenient height. Cobble-stones had also been laid in the floor of the doorway—which had been raised about 6 inches—and a belt of cobbling about 3 feet in width also extended inside the cave in front of the doorway, and about 5 feet on the western side of the wall, towards the lookout window.

The inside portion of the wall south of the entrance is built for the most part on forced earth, the vertical depth of which is about 2 feet below the second fireplace described.

I may here state, that in order to prevent the further destruction and crumbling away of a monument of so much archæological interest as the wall, Mr Hamilton Ogilvy very considerately, at the suggestion of Mr Thomas Ross, F.S.A. Scot., had it partially restored by "stepping," and the whole structure pointed inside and outside with Portland cement.

The whole floor area of the cave was marked off into consecutively numbered sections 3 feet square, and the "find" from each section was kept separate. This was ultimately discontinued, however, as it was ascertained that the deposit was very shallow, and had reference to only one or more occupations about the same period.

As might be expected, the deposit was thickest at the lower or south side of the cave, where it was generally from 10 inches to 1 foot in depth. Towards the upper or north side of the cave the deposit became thinner, and gradually tapered out altogether. Throughout the deposit, charcoal occurred in more or less abundance, and it was clear that many fires had been lighted promiscuously over the floor. At a point, however, marked in the plan 24 feet from the entrance, and near the centre of the floor, a circle 10 feet in diameter was discovered. This was laid with flat stones, the lower sides of the circle being built up about 8 inches, so as to give the top a level surface. On this structure a considerable quantity of charcoal was found, and it was evident that this had been the principal hearth.

All of the deposit was, when possible, put through a half-inch riddle, but much of it was so wet that it had to be passed through the fingers.

Large quantities of the bones of domestic animals, including those of the ox, sheep, pig, and dog, and numbers of whelk, limpet, and a few oyster shells were found.

I have grouped and will describe the relics collected under several heads:—

Objects of Stone.—Only two objects of stone were found in the excavation of this cave, viz. the under-half of a rotary quern, which was found on the top of the built hearth in the centre of the cave, and which measures 16 inches in diameter and 3 inches in thickness, and a portion of a small whetstone (fig. 5, No. 4), measuring $\frac{1\frac{5}{8}}$ of an inch in length, $\frac{7}{16}$ of an inch in thickness, and $\frac{5}{8}$ of an inch in width.

I may here mention the finding of a small stone having a splash of glaze on it, which was lying on the hearth of the fireplace first described.

Objects of Metal (fig. 6).—An iron knife (No. 1), in four pieces, with tang. The blade measures $3\frac{7}{8}$ inches in length, and the tang $1\frac{1}{8}$ inch in length.

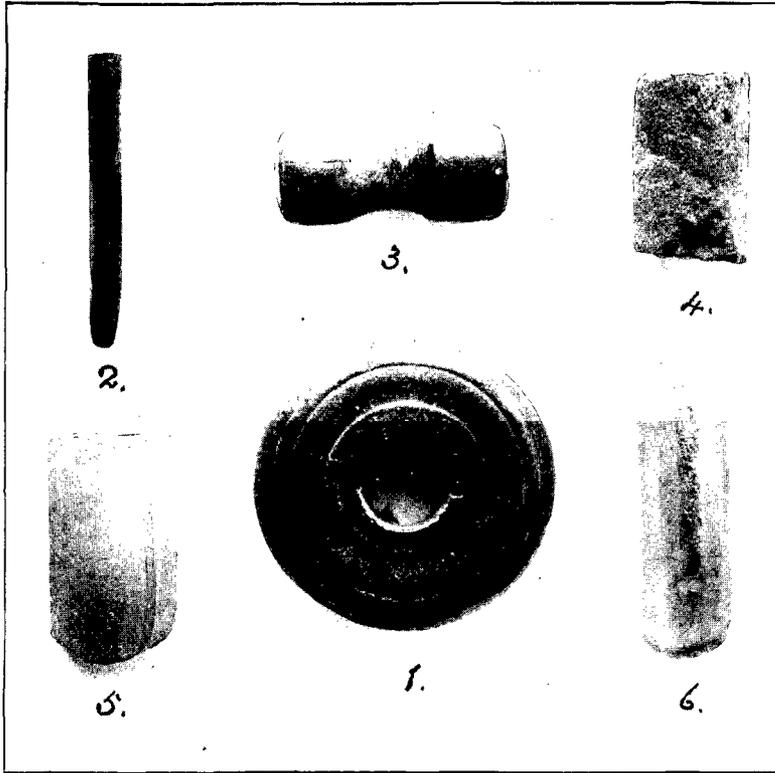


Fig. 5. Objects of Deer-horn, Bone, Glass, and Stone, from Cave No. 1. $\frac{1}{4}$.

A socketed spear-head (No. 4), which is in two pieces, and the point of which is broken off, measures about 2 inches in length.

A semicircular object (No. 5), measuring $1\frac{9}{16}$ inch in diameter, may

possibly be a portion of a penannular brooch. A narrow groove was noticeable running round its perimeter.

A few nails were found, of which Nos. 6 and 7 are examples.

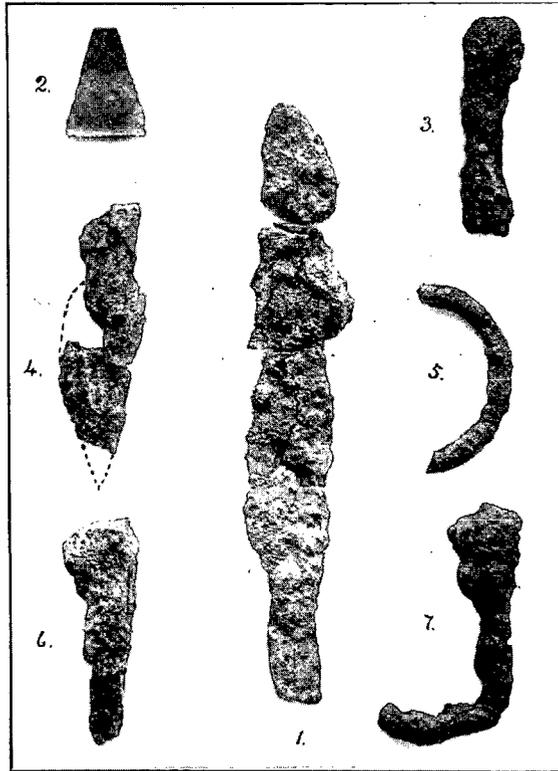


Fig. 6. Objects of Iron, etc., from Cave No. 1.

An object the use of which is doubtful is shown at No. 3.

Only one small portion of bronze was found (No. 2), and it appears to be one-half of a pair of tweezers.

Objects of Deer-horn and Bone.—A deer-horn pick (fig. 7, No. 1)

made from a portion of the shaft of an antler and the first tine. The second tine has been removed by cutting it $\frac{2}{3}$ round and then breaking



Fig. 7. Deer-horn Picks from Caves Nos. 1 and 2.

it across. The handle is $12\frac{1}{2}$ inches in length, and the tine, which has been much used at the point, measures $4\frac{1}{2}$ inches in length. The burr has been considerably worn on one side.¹

¹ A pick found in excavating the crannog at Lochspouts is almost identical in measurement with the above. See Dr Munro's *Ancient Scottish Lake Dwellings*, p. 176 ; see also *Excavations in Woodyates*, by General Pitt Rivers, vol. iii. p. 135.

A spindle-whorl (fig. 5, No. 1) made from a transverse section of deer-horn. This whorl is nicely rounded on its perimeter, has been turned on a lathe, and is finely polished on its upper surface, upon which it is ornamented with four incised concentric circles. It is $1\frac{1}{2}$ inch in diameter, $\frac{1}{2}$ an inch in thickness, and the diameter of the hole is $\frac{1}{2}$ an inch.

A small button-like object of bone (fig. 5, No. 3), measuring $1\frac{3}{8}$ inch in length, $\frac{1}{2}$ an inch in breadth, and $\frac{3}{8}$ of an inch in thickness. It has a flat base, is rounded on the upper side, and the centre has been hollowed out for $\frac{1}{2}$ an inch, leaving a depression suitable for passing a cord round. Friction-marks are visible on the surface of this depression.

The pointed end of a bone pin (No. 2) which has been blackened by the action of fire. This measures $1\frac{1}{2}$ inch in length, and at the point of fracture $\frac{3}{16}$ of an inch in diameter.

Objects of Glass or Vitreous Paste (fig. 5).—Portions of two glass armlets were found. One is of white opaque glass (No. 5), and is devoid of ornamentation. It measures $1\frac{1}{8}$ inch in length, $\frac{5}{8}$ of an inch in breadth, and $\frac{5}{16}$ of an inch in thickness. When complete, this armlet would measure $2\frac{5}{8}$ inches in inside diameter. The second (No. 6), which has been considerably weathered, is of greenish glass, with a blue and white twisted cable ornament running round it.¹ It measures $1\frac{9}{16}$ inch in length, $\frac{1}{2}$ an inch in breadth, and $\frac{11}{32}$ of an inch in thickness. This armlet, when complete, would measure $2\frac{3}{4}$ inches in inside diameter.

Pottery.—Of the pottery found in this cave there are four distinct types, viz. (1) a coarse rough ware, the paste containing numerous small stones in order to prevent the vessel cracking when fired; (2) a thin ware made of fine paste; (3) a few fragments of Samian ware; and (4) a single fragment of a thickish, grey-coloured ware, of fine paste.

¹ Dr Munro, in *Ancient Scottish Lake Dwellings*, p. 59, describes a portion of a similar armlet from Wigtownshire; and another one, from Hyndford, Lanarkshire, is recorded by J. Romilly Allen in *Celtic Art in Pagan and Christian Times*, p. 126.

Of the first type, portions of two vessels, which must have been of considerable capacity, were found. The first is of a brick-red colour, showing bluish black in fracture, is unglazed, and its average thickness is about $\frac{9}{16}$ of an inch. A portion of the wall which I have been able to put together measures $11\frac{1}{2}$ inches in height, and, including the rim, is vertical. When complete, this vessel would measure $9\frac{1}{2}$ inches in inside diameter. The second and larger vessel is brownish black, shows the same colour throughout in fracture, and is also unglazed. From the traces of soot on the exterior, it is evident that the vessel has been subjected to the heat of the fire. The walls are, as in the first vessel described, about $\frac{9}{16}$ of an inch in thickness, but the rim is turned inwards. When complete, this vessel would measure $16\frac{7}{8}$ inches in inside diameter.

A mere handful of fragments referable to the second type were collected, and they seem to have belonged to more than one vessel. These show no decoration, but most of them are covered, or partially covered, with a rich greenish or orange-coloured glaze. They are generally about $\frac{3}{16}$ of an inch in thickness, have been made on the wheel, and are all of fine texture. A few of the fragments are stone coloured, and some of these have a sooty encrustation on the outside. The majority of the potsherds are, however, of a pale terra-cotta colour, and none of these have on them any sooty discoloration. Of the third type, only four small fragments of Samian ware were collected, and it is probable that these belonged to the same vessel. They are all of that fine, closely compact texture and rich deep red colour so well known to archæologists. One fragment (fig. 8, No. 1) is ornamented in relief with a part of one hind-leg of a lion or other similar wild animal, behind which is an S-shaped scroll lying horizontally. Another shard (No. 2) is a portion of the bottom of a vessel. Upon this is a small raised band measuring $\frac{5}{16}$ of an inch in depth and $\frac{1}{2}$ an inch in width running round its circumference, on which the vessel has stood.

The last type mentioned consists of the neck of a small vase (No. 3), to which a handle has been attached. This is of fine texture, greyish in

colour, is unglazed, and the walls measure about $\frac{5}{16}$ of an inch in thickness. The inside diameter of the neck measures $\frac{11}{16}$ of an inch.

Having completed the above excavation, and noticing that the roof of the cave was composed of a stratum of volcanic ash of a somewhat harder texture than the walls and floor, I thought it possible that in the immediate vicinity other caves might have been formed under similar conditions to the one already described. Accordingly I determined to follow this hard band or stratum round the cliff to the north. There observing a rabbit or rat hole burrowed in the sand close in to the rock, I decided to dig down at this point, keeping the hole as a guide. After a depth of about 5 vertical feet had been excavated, the perpendicular rock suddenly took a horizontal position, and this I soon ascertained to be the roof of another cave, which I had been fortunate enough in discovering.

In attempting to clear an entrance towards the north, an immense barrier of rock was almost immediately encountered, which precluded a view of the cave being obtained from the sea. Between the top of this barrier and the mouth of the cave, however, there was a space of about 5 feet, which was filled with sand. The entire interior of the cave, to within about 6 inches of the roof, was also filled with sand, which had been blown in by the prevailing westerly winds. After carefully surveying the situation, and seeing that an entrance from the west was well-nigh impossible, owing to a large bank of sand extending, as in the case of the first cave, from the summit of the cliff to the shore, I determined to make an entrance through the rocky barrier from the north, at what I considered to be the centre of the cave. Commencing work, therefore, at a lower level, and outside the rocky barrier, a cutting was made towards the cave; and, with the aid of a couple of quarrymen, the masses of rock were broken up and a clear entrance obtained (fig. 9). It may be stated that the rocks here mentioned had undoubtedly at some period formed part of the overhanging roof of the cave, but as no deposit was found to underlie them it is evident that the fall had occurred antecedent to the occupation of the cave. As a further proof of this, it was noticed that at one point where the fall of rock had left a

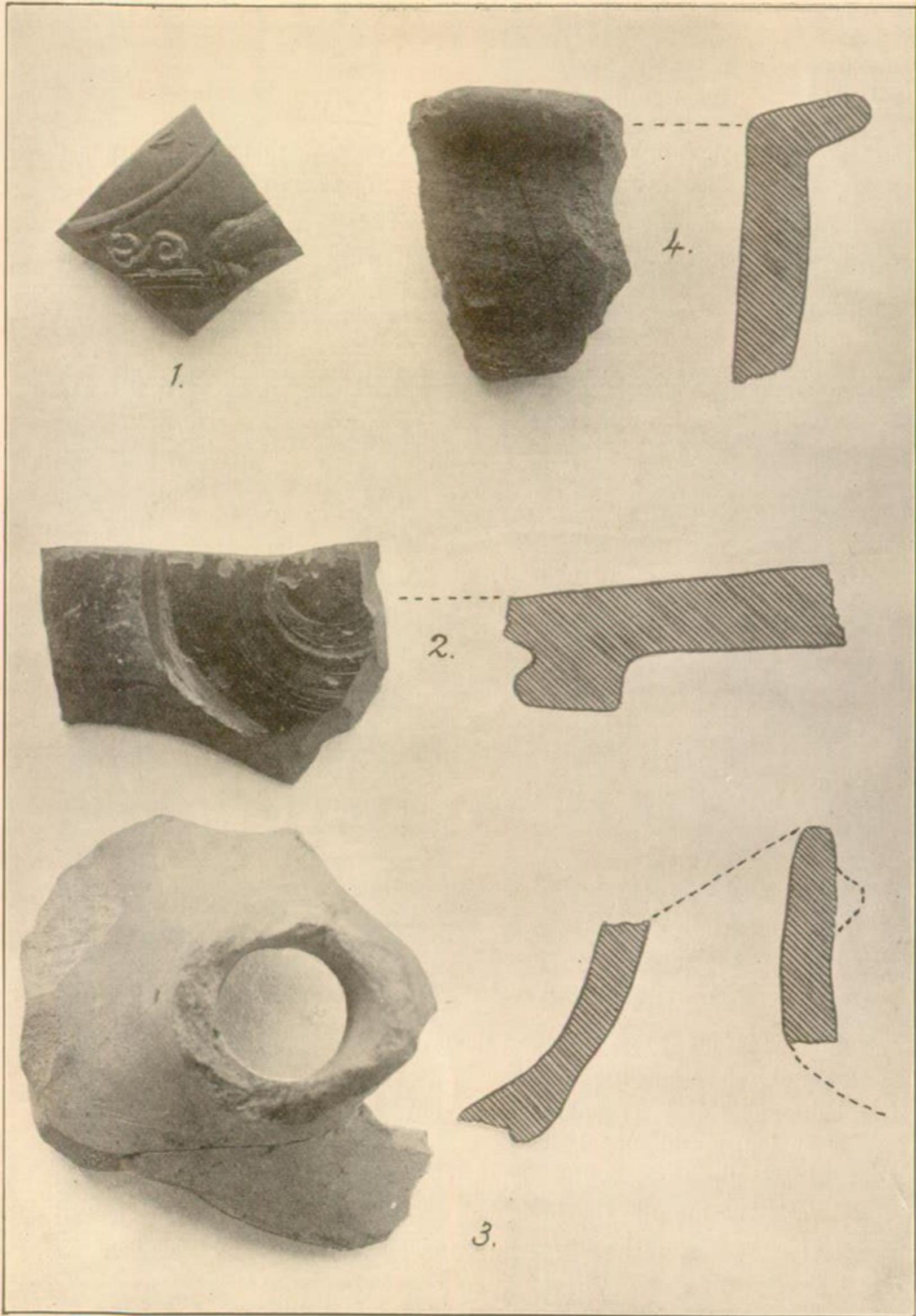


Fig. 8. Fragments of Pottery from Caves Nos. 1 and 2. (1.)

hole through into the cave, this had been roughly built in with flat stones, thus completing the natural wall or breastwork.

On the removal of one of the large rocks from the mouth of the cave, a human radius was found projecting out of the sand. This bone seems



Fig. 9. Entrance to Cave No. 2.

to have belonged to a youth, or to an adult of small stature. Although careful excavations were made, no other human remains were brought to light, and this bone may therefore have been brought to the cave by some dog or wild animal.

Inside the cave, at the mouth, the sand reached a depth of about 5 feet, but towards the back and east end it tapered away to about 18 inches. Near the surface of this sand, the skulls and some bones of

two adult goats and three kids were found ; but these, it is certain, had no reference to the period at which the cave had been occupied by man. After clearing away the sand, a layer of heavy black deposit about 12 inches in thickness was encountered. This had a somewhat nauseous smell, and was devoid of remains of any kind. Possibly this deposit was referable to the period when the cave had served as the abode of goats. Beneath this a stratum of soil and stones was found, varying in thickness from about 18 inches in the centre of the cave to a mere trace at the edges. From this stratum all the relics were recovered.

The natural floor of the cave dipped considerably towards the north, and also slightly towards the east, and stones and soil had been filled in for the purpose of making a level artificial floor. At the north-west end the vertical depth of this "fill in" was about 4 feet, and this tapered away to nothing at the south and east ends of the cave. The height from floor to roof at the mouth did not exceed 7 feet at the highest point, and the roof on all sides sloped rapidly down towards the floor. The full extent of this cave is about 45 feet in length from east to west by 23 feet in breadth from north to south ; but, as over a considerable portion of this space the roof and floor are not far apart, the habitable floor area is approximately 27 feet from east to west by 15 feet from north to south.

The ground-plan (fig. 4) of the two caves shows that they are only separated by a distance of about 10 feet.

As in excavating the previous cave, the whole of the floor was measured off into sections 3 feet square, and the "find" from each section was kept separate and the position of all objects carefully noted. At the west end of the cave a large circular stone of volcanic ash 3 feet in diameter and 7 inches thick was found on edge.

At a point that may be considered the centre of the habitable floor area of the cave a large hearth was found at a depth of 18 inches from the then existing surface. This hearth was laid with flat stones, and covered a roughly rectangular space of 10 feet by 16 feet. At the north-east end of this rectangular hearth three horizontal stones and

two stones set up on edge were found ; the two latter stones being raised about 3 inches above the horizontal ones. Other flat stones of considerable size, laid horizontally and close together, were also noticed ; and throughout the entire hearth area flat stones were laid with more or less regularity.

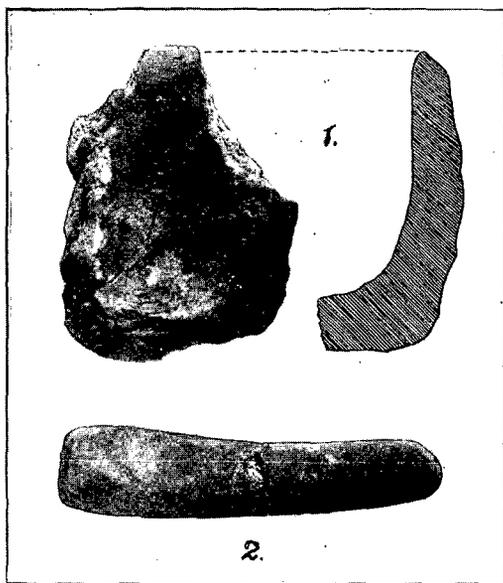


Fig. 10. Fragment of Pottery and Whetstone from Cave No. 2.

The deposit overlying this hearth contained quantities of charcoal, and nearly all the relics were recovered from this area and from its immediate vicinity towards the east. These relics I will now enumerate, and will classify them in the manner adopted in describing those found in the previous cave.

Object of Stone.—A whetstone (fig. 10, No. 2), one surface of which has been considerably worn. This stone measures $4\frac{15}{16}$ inches in length by $1\frac{3}{16}$ inch in breadth.

Objects of Metal.—The principal object of metal found was a bronze pin (fig. 11). This was lying in some deposit on the edge of a large boulder which formed part of the rocky barrier already described. The pin lay at a distance of about 4 feet from the edge of the hearth. It measures $4\frac{1}{4}$ inches in length; and the head, which is squared, is ornamented on the top with six short transverse bars, while the sides have each five transverse bars. A ring which is slightly oval swings freely in sockets left at both ends of the squared head. It measures $\frac{7}{16}$ of an inch in outside diameter one way by $\frac{1}{4}$ of an inch in outside

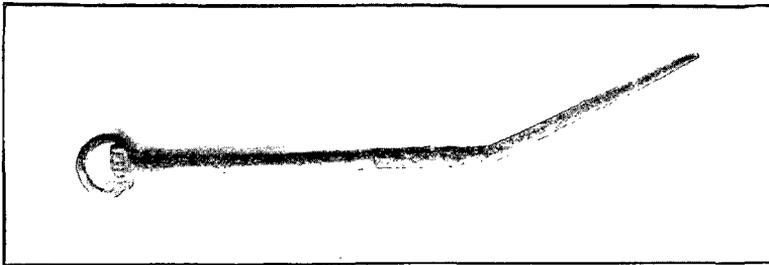


Fig. 11. Bronze Pin from Cave No. 2.

diameter the other way. An iron loop measuring $2\frac{1}{4}$ inches in length by $1\frac{3}{8}$ inch in breadth at the broad end, which is rounded, together with several iron nails, were also found.

Objects of Deer-horn and Bone (fig. 7).—Two large deer-horn picks (Nos. 2 and 3), made from portions of the shafts of antlers and the first tines. No. 2 measures $16\frac{1}{4}$ inches in length; and the tine, which unfortunately is broken near the point, measures $2\frac{1}{2}$ inches in length. No. 3 measures $10\frac{3}{4}$ inches in length, and the tine, which is somewhat worn at the point, measures $5\frac{1}{2}$ inches in length. At the end of the handle the main branch of the horn together with the second tine have been cut partially round and then broken over. No. 4 is a tine measuring $6\frac{3}{4}$ inches in length. It has been cut by a blunt instrument, on both sides to a flat surface, and may have been intended to form the

handle of some implement. The point of this tine shows no sign of wear ; the other end has been sawn square across.

Five objects of deer-horn are shown on fig. 12.



Fig. 12. Objects of Deer-horn from Cave No. 2.

No. 1 measures $\frac{3}{4}$ of an inch in length, and has been cut square at both ends. It is broken longitudinally, and shows cutting on the outer surface.

No. 2 is a portion of a tine, measuring 5 inches in length, cut all

round at the thick end, and then broken across. From this end, at a distance of $\frac{9}{16}$ of an inch on one side, varying to $\frac{11}{16}$ of an inch on the opposite side, a deep, square cut groove has been cut across the horn.

No. 3 is a portion of a tine, measuring $4\frac{1}{8}$ inches in length. The thick end, which measures $1\frac{3}{16}$ inch in greatest diameter, has been sawn entirely through. From this end, the horn on opposite sides has been cut down about $\frac{5}{32}$ of an inch, and an oblong hole pierces the horn at this point. From the cut, the horn has been roughly squared down towards the point, and a friction mark is distinctly visible, on the outer surface of one side of the horn, in line with the hole.

No. 4 is another portion of a tine, measuring $4\frac{1}{8}$ inches in length, which has been cut about halfway round, and then broken across. It is worked nearly all round, and may have been used as an awl.

No. 5 is a roughly made ring of deer-horn, measuring $1\frac{7}{16}$ inch in outside diameter, and $\frac{3}{8}$ of an inch in thickness. The diameter of the hole is $\frac{7}{8}$ of an inch.

On fig. 13 are shown five implements of deer-horn and one of bone.

No. 1 measures $1\frac{1}{16}$ inch in length, by $\frac{1}{16}$ of an inch in diameter. It has been worked all over the upper surface, has been sawn across at both ends, and, like No. 1, fig. 12, is broken longitudinally.

Nos. 3 and 6 are cylindrical objects; the former, which has been damaged at one end in recovery, measures $2\frac{3}{4}$ inches in length. It is nicely smoothed over its entire surface, and has been cut across at the complete end. The latter measures $3\frac{1}{16}$ inches in length. It has been roughly cut across at both ends, and rudely trimmed over the entire surface.

No. 4 measures $3\frac{5}{16}$ inches in length. At the small end the tine is cut square across. At the thick end the horn is cut down $\frac{3}{8}$ of an inch; thence, it is split horizontally, and the sides brought to a rounded point. The whole surface of this object has also been worked to a fairly smooth finish.

No. 5 is the point of a tine, which measures $3\frac{3}{8}$ inches in length, by $\frac{7}{16}$ of an inch in diameter, at the thick end. This object, which may

have been an awl, is cut square across at the thick end, and has been worked over the entire surface, to near the point.

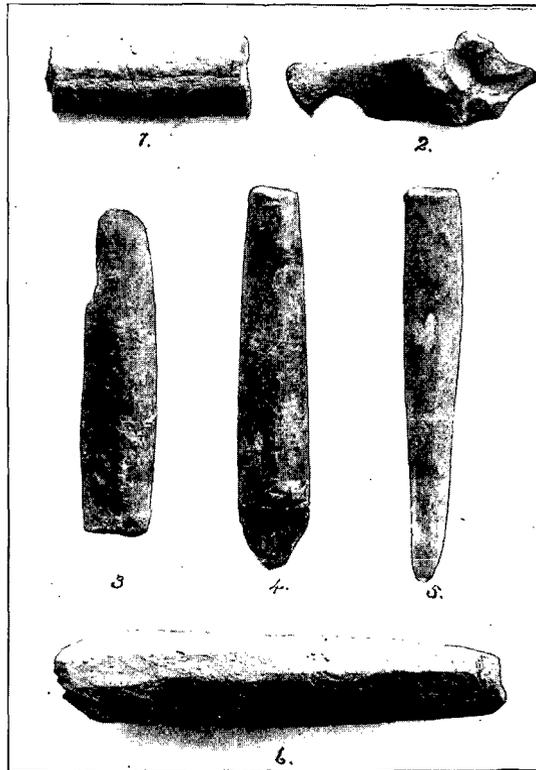


Fig. 13. Objects of Deer-horn and Bone from Cave No. 2.

No. 2 is the calcaneum bone of a sheep, measuring $2\frac{1}{8}$ inches in length, and a semi-circular hollow has been cut at the small end of it.

A number of tines were found in this cave, in addition to the above objects of deer-horn. These are unfashioned, and merely show the marks of the implement which had been used to sever them from the

shaft. Portions of the shafts of two large antlers were also brought to light. These have pieces of the skull still adhering to them, and have apparently belonged to the same animal. One of these measures—not including the portion of skull—about 8 inches in length and $7\frac{1}{2}$ inches in circumference immediately above the burr; while the other, at the same point, measures only about 4 inches in length and $7\frac{7}{8}$ inches in circumference. The brow tine of the former has been sawn through, while the second tine of the latter has been cut all round with some implement, and then broken across. On the flat portions near the burrs of both horns, several indentations or punch marks are visible.

Pottery.—Only a few fragments of pottery were recovered. At least two of the types found in the first cave were wanting in this cave, and, similarly, two types here recovered were not noticed in the previous excavation.

A few fragments of coarse ware, brick-red in colour, and showing a bluish black in fracture, were found. These are unglazed, the paste contains small stones, and the shards vary from about $\frac{3}{8}$ of an inch to $\frac{9}{16}$ of an inch in thickness. In this class may be included a portion of a small vessel from rim to base (fig. 10, No. 1). It is made of a fineish paste, and shows greyish black in fracture. It measures 4 inches in height, and the wall varies in thickness, from $\frac{1}{2}$ an inch close to the rim to $\frac{3}{4}$ of an inch near the base. The rim is slightly pointed in vertical section, and the outside of the wall is roughly irregular in finish, while the inside seems to have been more particularly smoothed. Attached to the latter is a black encrustation.

One shard, considerably weathered, is of a reddish-brown colour, and is the same colour in fracture. It is made of a fine paste, and measures $\frac{3}{8}$ of an inch in thickness.

Another fragment, with rim, is represented at fig. 8, No. 4. This small shard is of some interest. It is $1\frac{7}{16}$ inch in length, by about 1 inch in breadth, and $\frac{11}{32}$ of an inch in thickness, and the rim is considerably everted. In texture, this fragment is fine, and the outside and inside are of a brownish-black colour, while in fracture it is a somewhat

paler brown. A lozenge-shaped pattern of faint incised lines made by a blunt pointed instrument decorates the exterior. This fragment seems to be of Roman manufacture, and what is known as terra nigra.

Two portions of the wall of a vessel, of a very fine texture, were also recovered. These are black both on exterior and interior, and in fracture they are of a greyish brown.

The conclusions I have formed, on the completion of the excavation of these caves, are as follows:—There was no evidence of their having been occupied during either the Neolithic or Bronze Age; all the relics found related to the Early Iron Period.

Referring to the first cave described, it seems probable that several occupations occurred. It will have been noticed that numerous hearths were found, including the central raised one, and these, it would appear, would be quite superfluous, had the wall, with its two built fireplaces, then been in existence. The latter, however, do not show signs of having been greatly used, and it would thus seem that the internal hearths related to the older and principal occupation. Further evidence on this point was furnished by the block of sandstone, which had been used as a sharpening stone, and which is built into the jamb of one of the fireplaces. This stone could not have been used as a sharpening stone in the position in which it was discovered, and it must therefore be referable to the occupation of the cave prior to the erection of the wall. Again, nearly all of the coarse pottery mentioned was recovered from beneath the cobble-stones, and it seems thus probable that the forced earth, used to level up the floor, in the triangular depression in rear of the fireplaces, had been taken from the deposit already in the cave.

In the troublous times of the period, when constant raids were occurring, and the people were taking refuge in crannogs, caves, etc., it must have been found that this cave did not of itself afford sufficient protection. By the erection of the wall, however, the cave was practically transformed into a fortress, which little but starvation could have reduced. For some reason, nevertheless, the cave does not appear to have been long occupied after the erection of the wall. Had

it been so, one would have expected the built fireplaces to have shown more signs of constant use. That the cave had been occupied after the completion of the wall there is no doubt, as bones and the shells of edible molluscs were found in the thin deposit overlying the cobbles, in rear of the fireplaces; and it is certain that these cobbles were coeval with the wall.

I have already mentioned the rough wall which had been built across the doorway to a height of 3 feet. This, there is no doubt, had been added after the main wall had been completed, and it appears to be referable to a somewhat later date, possibly to a third occupation of the cave.

Unfortunately, as no distinct strata could be detected in the deposit, no data could be obtained regarding the number or duration of these occupations, and no useful indication was given by the position of the relics. That at least one or more of the occupations are referable to Roman or post-Roman times is certain,—the presence of fragments of Samian ware place this beyond doubt.

Mr Thomas Ross, F.S.A. Scot., to whom I am indebted for the accompanying plan of these caves, and who visited them on several occasions, expressed the opinion that the wall built across the entrance to the first cave described, might be attributed to any date between the fourth and the twelfth centuries.

Although in other parts of the country caves are known to have been used as the abode of early Christian missionaries, others having merely been inhabited, I have not been able to discover any record of a cave having been used at this period as a defensive position.¹

¹ Mr Fred. R. Coles, Assistant Keeper of the National Museum of Antiquities, Edinburgh, has kindly drawn my attention to the following, which occurs in an excellent *Guide to Belfast* compiled by the Belfast Naturalists Field Club in 1874, p. 211: "On the coast of Island Magee there is a cave south of the Gobbins which has been frequently used as a place of refuge. So late as 1798 it was inhabited by outlaws, who constructed a kind of fortification at the entrance, the remains of which still exist."

The fortification here referred to appears to relate to comparatively recent times.

Dealing now with the second cave, it will have been noted that only one central hearth was found, and the deposit throughout might roughly be described as of similar thickness to that found in the first cave.

Pottery of Roman origin was brought to light in both caves, and this in itself would point to the probability that the two caves were occupied contemporaneously.
