

## IV.

## A REMARKABLE STONE IMPLEMENT RESEMBLING A KNIFE FOUND AT CAISTEAL NAN GILLEAN, ORONSAY. BY SYMINGTON GRIEVE, F.S.A.Scot.

An interesting object of stone, which appears to be unique (fig. 1, No. 1), was discovered in June 1881 during excavations at Caisteal nan Gillean, a shell mound in Oronsay belonging to the Azilian archæological horizon. This mound dates back to a very early time in the history of Britain and to long before the Christian era. No exactly similar implement, so far as I have yet been able to discover, is known. A search of the literature bearing upon stone implements has revealed nothing, and no stone implements such as this one appear to have been figured.

The stone of which this implement has been made is of a slaty character and somewhat brittle. The implement is like a knife with a handle, all in one piece, and the impression one gets at first sight is that it must have been used for cutting. However, a little consideration will satisfy anyone that its blunt and chipped edge is too thick for such a purpose. It is in some respects like a small chopper, similar in shape to those to be seen in butchers' shops, only much smaller. However, no thinking person would suggest that the implement we are now discussing could be used for cutting up raw meat. The stone is too brittle, and the edge is not hard enough to be sharpened so as to cut anything that is hard or tough.

The dimensions of the implement are as follows:—total length, including the handle and blade,  $6\frac{5}{8}$  inches; the breadth of the blade at its broadest part, near where the handle begins,  $1\frac{1}{2}$  inch, and at the point  $1\frac{1}{4}$  inch, as the blade gradually tapers; the length of the blade  $3\frac{1}{4}$  inches; the length of the handle  $3\frac{3}{8}$  inches; the breadth of the handle at its outer end  $1\frac{3}{8}$  inch, gradually tapering off to  $1\frac{1}{8}$  inch in breadth where the blade begins; the thickness of the handle at the hilt, by cross measurement,  $\frac{1}{2}$  inch; at the point where the blade begins, the cross measurement  $\frac{5}{16}$  inch; the average thickness of the back of the blade  $\frac{1}{4}$  inch; the average thickness of the edge of the blade  $\frac{1}{8}$  inch.

From what I have said you will notice that it is difficult to fix upon any domestic purpose of civilised man for which such an implement could be used. However, there is a method of cooking that prevailed up to comparatively recent times, and may still be carried on in remote places in Ireland. It is a customary method of cooking

used by many tribes of uncivilised men in various parts of the world at the present. As there is strong evidence that this practice in cooking was carried on at Caisteal nan Gillean, I think that we may get a hint as to what this knife-shaped stone implement was used for.

During our excavations we found beside the kitchen middens pockets of rolled stones that bore traces of having been exposed to fire, and many of them had been cracked by the heat, or, possibly, through water having been poured upon them while they were very hot. Mixed with these stones was a considerable quantity of carbonaceous matter. These pockets of stones seemed to have been cooking places, as around them were found the bones of fish and mammals that had been used for food. Among these remains we found masses of what looked like dried gelatinous matter mixed with the scales of coarse fish, such as the grey mullet (*Mugil septentrionalis*) and the wrasse (*Labrus maculatus* Bl.), the spines of dog-fish, and the skate.

It is an extraordinary fact that these fish remains have been preserved for thousands of years in the sandy deposits of the kitchen midden. In corroboration of what I have said, I may mention that during the excavations at Cnoc Sligach, another *sithean* or mound on Oronsay, similar fish remains were discovered by Mr A. Henderson Bishop, F.S.A. Scot., whose paper, describing the excavations, appeared in the *Proceedings* of this Society, vol. xlviii. pp. 52-108.

Now, let us for a moment consider how it came about that we found fish scales in such a situation.



Fig. 1. Knife-like Implements of Stone from Oronsay and Shetland.

The conclusion is that since we discovered not only the fish scales, but the matter that had formed the skins, the fish had evidently been used for food. It was at first a puzzle to me to account for the fish scales being found mixed up with the dry gelatinous-like lumps that we came across, but further investigation has made it quite easy to account, not only for these lumps, but for their presence here. The prehistoric people, no doubt, had to occupy themselves with hunting and fishing to secure the necessary supplies of food. The exigencies of their lives would compel almost every member of a family circle to engage in the search for the means of sustenance. Thus it would happen that very few of each family circle would stay at home to attend to even the most necessary duties of the household. But, if at times no one was able to devote the time generally required for domestic duties, how was the food required for the home to be prepared?

The cooking of the food of the ancient inhabitants of Oronsay was primitive, but the use of fire for heating and cooking was understood.

We have found no vessels at Caisteal nan Gillean that would hold liquids, except the shells of several varieties of the larger shellfish, such as *Pecten opercularis* L., *Ostrea edulis* L., *Cyprina islandica* L., etc. As far as the excavations at Caisteal nan Gillean enabled us to judge, there was no indication that the early inhabitants of this shell mound had any knowledge how to make pottery. But, if the inhabitants who formed the kitchen middens of the shell mound were ignorant of the fashioning of vessels to contain water, it seems reasonable to suggest that the heating of water for domestic purposes must have been beyond their knowledge. Incidentally this raises the much wider question as to whether primitive man was able to produce fire or make pottery first, and seems to point distinctly to the former having had the precedence. The people who lived at Caisteal nan Gillean, if they did not know how to heat water, knew how to cook certain kinds of food. That they had fires is evident from the depressions in the sand which we found containing fragments of charcoal and round stones that had been fractured by heat. Such hearths were not merely for open fires, which would have required constant attention. From the comparatively small amount of carbonaceous matter left one would suppose that they had been used for some temporary purpose. It may be suggested that on an island such as Oronsay, which is practically without trees, fuel might be scarce. However, much drift-wood comes ashore, and dried sea-ware makes a fairly good fuel, also growing or fallen timber can be got on the adjoining island of Colonsay. I think, therefore, that

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we may dismiss the idea that the primitive inhabitants suffered from any want of fuel in performing their simple cooking operations.

When we consider these things in connection with what we know of the habits of other aboriginal peoples, we get a clue to the use of the hearths found at Caisteal nan Gillean. In fact, in Ireland in recent times, if not even to the present day, the poorest class of the inhabitants of some parts have used similar hearths for their cooking.

It appears that the primitive inhabitants of the shell mound, before going out to their work—fishing or hunting—put a considerable number of rounded or oval stones, taken from the beach, into a hollow in the sand. They then lit a fire upon the top of them and kept it burning until the stones were heated to a very high temperature. Then, by raking off the upper layer of stones, they left a cavity in the ground into which they placed, rolled in leaves, rushes, or seaweed, such food as they wanted to cook. Upon the top of this food they once more raked the heated stones they had just removed and covered all over with sand and turf. In this primitive oven they left the food to be cooked, knowing that when they returned they would get a hot, well-cooked meal.

Judging from the quantity of fish remains that we found in the kitchen middens of the shell mound, the sea must have yielded a large proportion of the food that was used. Many of the fish eaten were what may be described as coarse fish, such as the grey mullet (*Mugil septentrionalis* Gunth.) or the wrasse (*Labrus maculatus* Bl.). The skins of these creatures when baked form a gelatinous envelope round their bodies with the scales adhering, which has to be removed before the fish is eaten. To do this a scraper is required, and, I understand, in late times this instrument was made of wood.

The stone implement whose use we are now discussing was found lying beside the lumps of gelatinous-like matter mixed with fish scales in the kitchen midden at the shell mound. My suggestion is that it is a stone scraper, and was used to remove the cooked fish skins, as I have just described.

The only stone knives that can be compared with that which we are now considering are what are locally known as Pechs' or Picts' knives, and which are almost or altogether confined to Shetland. Some of these with handle and blade are formed out of one piece of slate or greenstone (fig. 1, Nos. 2 and 3), but most are more or less oval in form (fig. 1, No. 4). The latter, probably, were fitted with a wooden handle. The oval knives were generally polished and ground to an edge all round. In diameter they usually measure from 3 to 5 inches and in length from 6 to 9 inches.

Little seems to be known about the Shetland stone knives. They were probably used in various ways and for various purposes. It is said that early last century an old woman was seen using one to cut kail.

None of the Shetland Picts' knives, so far as known, were made of flint (for illustrations, see *Proceedings*, vol. xii. p. 270).

In Greenland the Eskimos have knives made out of an ovate piece of slate. They make handles to these with strips of wood which they fix to the stone with resin. Many of these knives have a hole perforated either through the stone or through the handle to hold a cord for suspension, and they are used for flensing.

Stone knives have been found in Norway, but are said to be rare. In the supplement to the *Recueil d'antiquités Suisses*, p. 1, pl. i., De Bonstellen gives an illustration of a knife with a wooden handle and a small stone blade. The handle of this implement is rectangular, and differs from any other I have seen. It was found at Inkwyl in the valley of the Grisons. It is so fragile that it is difficult to think of any purpose for which it could be used. In any case, this object is so different from the implement we are now considering that they cannot be compared.

In conclusion, I may say that, in addition to the purpose I have mentioned, it is quite possible that this stone knife from Caisteal nan Gillean, Oronsay, may have been used at times for flensing, but the quantity of whale and seal remains found in that shell mound and at other kitchen middens in the Azilian archæological horizon on the west of Scotland is too small to lead to the conclusion that it could have been regularly used for such a purpose.

MONDAY, 13th March 1922.

ALEXANDER O. CURLE, F.S.A.Scot., in the Chair.

A Ballot having been taken, the following were elected Fellows:—

FREDERICK BISHOP, Ruthven House, Colinton.

Major DONALD C. CAMERON, R.A.S.C., c/o Messrs Cox & Co., 16 Charing Cross, London, S.W. 1.

LUDOVIC GORDON FARQUHAR, Architect, 4 Lynedoch Crescent, Glasgow.

JAMES DAVIE GILRUTH, M.A., M.D., Hyde Park House, Arbroath.

JOHN HORNE, "Louisburgh," 21 Montgomerie Terrace, Ayr.

FÉLIX JOUBERT, Architect, Dyke Lodge, Dyke Road Avenue, Patcham, near Brighton, Sussex.

Rev. A. BOYD SCOTT, M.C., B.D., Minister of Lansdowne Church, 18 Lilybank Gardens, Glasgow, W.

The following Donations to the Museum were intimated:—

(1) By WILLIAM M. TURNBULL, Lauder, through the Rev. WILLIAM M'CONACHIE, D.D., F.S.A.Scot.

Oval Waterworn Pebble,  $4\frac{1}{8}$  inches by  $2\frac{3}{4}$  inches by  $1\frac{1}{8}$  inch, with perforation widely countersunk from both sides, found at Bogbank, near Reston, Berwickshire.

(2) By the Rev. WILLIAM BEVERIDGE, F.S.A.Scot.

Block of Stone,  $11\frac{3}{4}$  inches by  $12\frac{1}{4}$  inches by  $6\frac{1}{2}$  inches, with a cup-mark 4 inches in diameter and  $\frac{3}{4}$  inch in depth, used as one of the side slabs of a short cist discovered at Standingstones Farm, New Deer, Aberdeenshire.

(3) By JAMES CURLE, F.S.A.Scot.

Two Flat Bronze Axes,  $6\frac{5}{16}$  inches by  $3\frac{3}{8}$  inches by  $\frac{3}{8}$  inch and  $5\frac{7}{8}$  inches by  $3\frac{9}{16}$  inches by  $\frac{11}{32}$  inch. Found, before December 1833, in Nairnshire, near a stone coffin without a lid, one axe upon the other, 14 inches under the surface, to the south of the coffin. (See subsequent communication by Mr J. Graham Callander.)

The following Donations of books for the Library were also intimated:—

(1) By HIS MAJESTY'S GOVERNMENT.

Acts of the Privy Council of England, 1613-1614. London, 1921.

Calendar of Entries in the Papal Registers relating to Great Britain and Ireland. Papal Letters, vol. xi., 1455-1464.

Calendar of Close Rolls. Richard II., 1385-1389.



Fig. 1. The Guthrie Bell and Bell Shrine.

(2) By GEORGE MACDONALD, C.B., LL.D., F.S.A.Scot., the Author.  
Obituary Notice: Robert Munro, M.A., M.D., LL.D. Reprint from  
*Proceedings of the Royal Society of Edinburgh*, 1920-1921.

(3) By JOHN A. STEWART, F.S.A.Scot., the Author.  
The Arms of Nova Scotia. Glasgow, 1921. 12mo.

(4) By J. M. CORRIE, F.S.A.Scot., the Author.  
The Droving Days in the South-Western District of Scotland.  
Dumfries, n.d. Sm. 8vo.

(5) By the Rev. F. HARRISON, M.A., F.S.A. Scot., the Author.  
The Windows of York Minster. York, 1921. Sm. 8vo.

(6) By LEON COUTIL, Hon. F.S.A. Scot., the Author.  
Département de l'Eure—Archéologie Gauloise, Gallo-Romaine, Franque  
et Carolingienne. 4 parts. Paris, 1921. 8vo.

It was announced that the Guthrie Bell and Bell Shrine (fig. 1) had been purchased for the Museum.

The remains of the bell, which is of hammered iron and is partly worn away, are enclosed within the shrine, to which they have been riveted and also adhere by corrosion of the metal.

The bell is rectangular, and measures  $6\frac{1}{2}$  inches in height externally, and  $4\frac{7}{8}$  inches by 4 inches across the mouth. On the top is a bow handle, the complete height of bell and handle being  $7\frac{3}{8}$  inches.

The shrine is of bronze or brass, is decorated with silverwork, niello, and traces of gilding, and there are the remains of settings for precious stones. In the centre of the front is a representation of the Crucifixion in the style of the thirteenth or fourteenth century, and above the crucified figure another of God the Father, in the manner in which He was usually represented as King in the fourteenth century, namely, crowned, bearded, and half-length. The right arm is broken off. On each side of the crucifix is the figure of a bishop, robed and mitred. On one side of the shrine is the figure of another bishop, also robed and mitred, and on the opposite side that of a smaller robed figure. At the bottom, in front, is a silver plate with the inscription in niello, upside down—JOHANES ALEXAN/DRI ME FIERI FECIT. Towards the right-hand side of the back, near the top, is a loop.

The bell and shrine were long preserved at Guthrie Castle. (See *Proceedings*, vol. i. p. 55.)

The following Communications were read:—