

## II.

NOTES ON (1) CERTAIN PREHISTORIC RELICS FROM ORKNEY, AND  
(2) SKARA BRAE: ITS CULTURE AND ITS PERIOD. BY J.  
GRAHAM CALLANDER, F.S.A. SCOT., DIRECTOR OF THE NATIONAL  
MUSEUM OF ANTIQUITIES.

## PREHISTORIC RELICS FROM ORKNEY.

For some time past the Orkney Islands have figured largely in our *Proceedings*, even without taking into consideration the important accounts of the Skara Brae excavations. Not only have prehistoric graves, earth-houses, and sculpturings of stone of peculiar forms been described, but relics of unusual types have been recorded. To anyone who has made a study of Scottish prehistoric implements and weapons, it is quite evident from the descriptions of these relics that types and varieties have been found in Orkney which have not been reported from other parts of the country. As I had an opportunity of examining some private collections during a recent visit to these islands, such differences were more forcibly impressed upon me. In these notes I propose to draw attention to certain objects that seem to be unique, to others which are variants of common Scottish types, and to some examples of a well-known class of relic which exhibit peculiar features. Of these, a few from the collection long preserved in Skail House are without localities, as the catalogue which once existed has been mislaid, but it is more than probable that they were discovered, if not in the neighbourhood of the house, at least on Mainland, the largest island in the Orkneys. Nearly all the others came from the same island.

*Flint and Chert Implements.*—As the small collection of flint implements from Orkney in the National Museum has been considerably augmented during the last two years by the activities of Mr J. M. Corrie, and as I was able to secure a good many more during my recent visit, we have now what may be considered a fairly good representative selection of these objects. Though their number cannot be considered large, they give quite a good idea of the types fashioned and used in these northern islands. The collection consists of seventy arrow-heads, nearly ninety scrapers, and about thirty other objects. There are also two complete axes and part of another. The whole appearance of the collection differs greatly from that of one from Morayshire, Aberdeenshire, Berwickshire, or Wigtownshire, the counties which have yielded

our greatest number of flint implements. The general form of the arrow-heads is different, the variety of implements is smaller, the quality of the flint is inferior, and its colour is unlike that found further south.

There are a good many small collections of flint implements in the farmhouses on the island of Mainland, but, so far as I could learn, attention seemed to have been concentrated chiefly on the search for arrow-heads. Two of the three largest collections which I saw—one from Appietown in the parish of Sandwick, about two miles west of the famous stone circle, the Ring of Brodgar, and the other from a farm near the extreme north-west of the island, in the parish of Birsay—contained very few implements other than these; the first included two barbed arrow-heads, fourteen of the leaf-shaped variety, seven being of the narrow, thick Orkney type referred to later, and one leaf-shaped specimen of black chert. The third collection, made by Mr Peter Irvine on his farm of Bookan, parish of Sandwick, contained every piece of flint which he saw, and therefore may be taken as a fair selection of the different types that may be met with in Orkney. There were six arrow-heads, all leaf-shaped, forty-two scrapers, two side scrapers, three knives, and six pointed tools, perhaps borers, the knives and borers being poorly made. There were no saws, drills, or so-called fabricators, neither were there arrow-heads of the hollow-based or lop-sided varieties.

Of the arrow-heads in the Museum, fifty-nine are leaf-shaped (figs. 1 to 3) and only eleven barbed and stemmed (figs. 1 and 3). Two of the leaf-shaped arrow-heads from Stenness are ground as well as flaked, a very rare occurrence in Scotland. In a collection of forty which I saw in Birsay there was only one barbed example, all the others being leaf-shaped. In smaller collections also the latter type predominated.

From these figures it is very evident that the proportion of barbed and stemmed arrow-heads to those of leaf-shape in an Orkney collection is very small. This is quite an interesting point, but if we examine them more closely we find that amongst the leaf-shaped examples there is a distinct variety which may be considered peculiar to Orkney—at least it occurs most sparingly indeed on the mainland of Scotland. This Orkney type is distinctly narrower and thicker than the normal leaf-shaped arrow-head (fig. 2). Some of these objects are nearly as thick as they are broad, and occasionally they are almost triangular in section. This type is no freak, as of the fifty-nine leaf-shaped examples in the National Collection, twenty-three—almost half—are of the narrow, thick variety. I think that the reason for making them of this shape, and also for the scarcity of barbed examples, was the poor quality of the flint available for their manufacture. Generally it was neither suitable for splitting into thin blades nor for fine flaking.

Instead of being of consistent shades of yellow, brown, and red like the flint from Aberdeenshire, much of that from Orkney shows mottled and jumbled colours, and is not of such a fine texture.

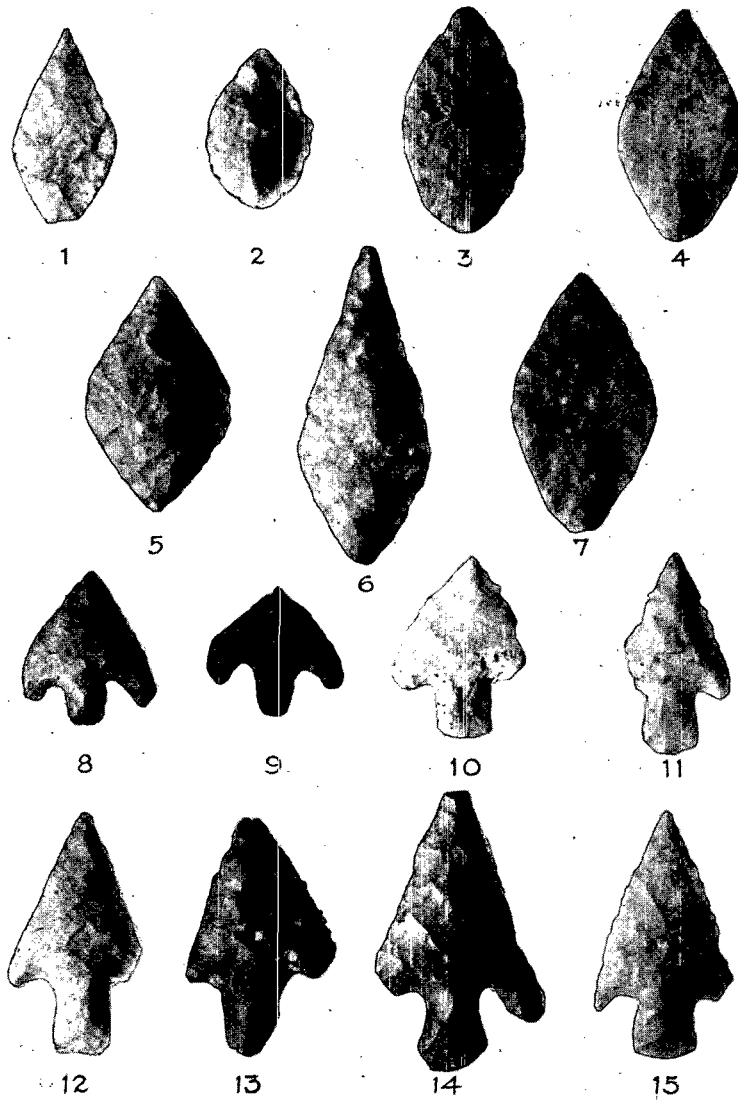


Fig. 1. Flint Arrow-heads from Orkney. (†.)

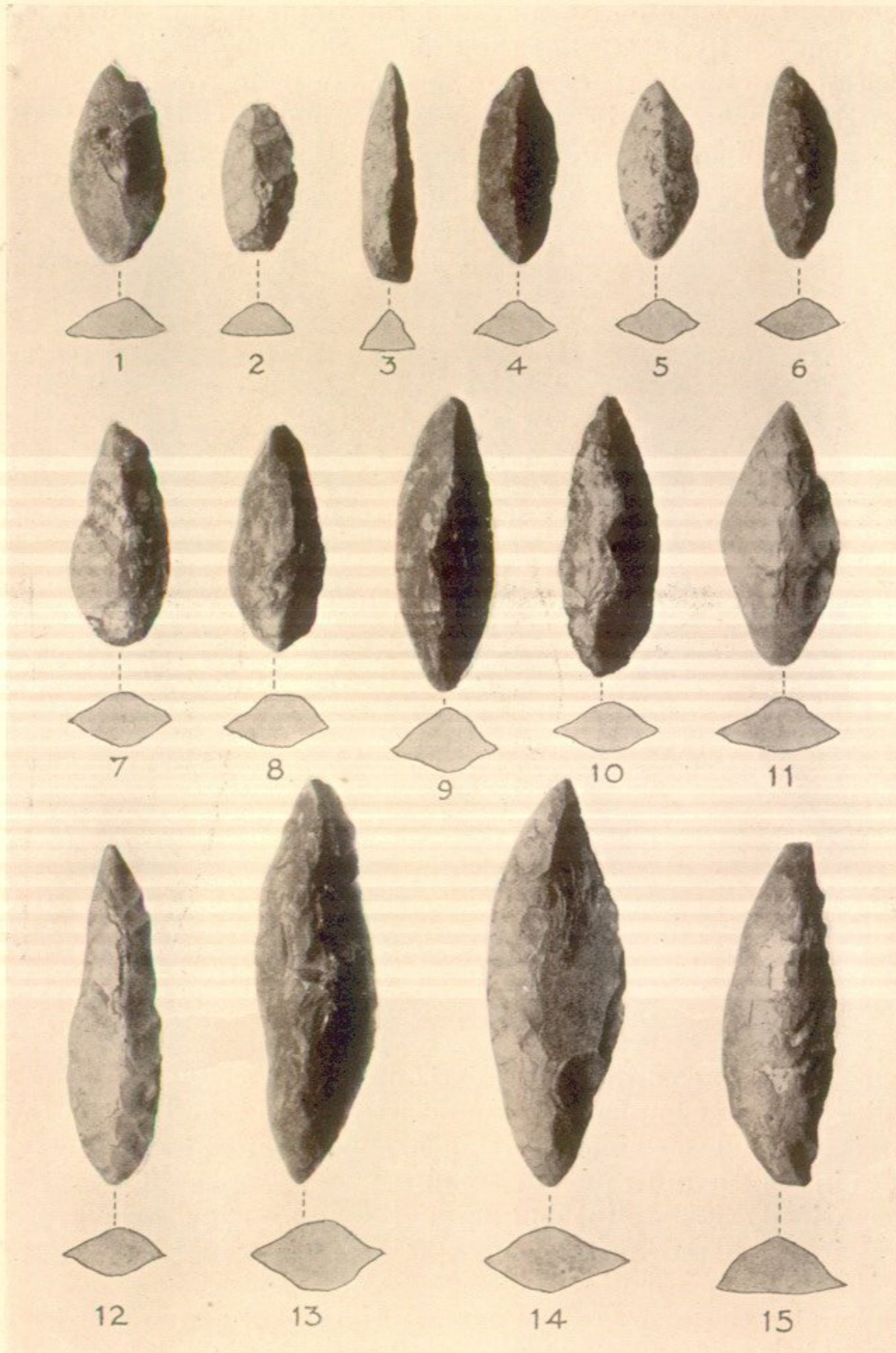


Fig. 2. Leaf-shaped Flint Arrow-heads, Orkney type. (†.)

Although the working on many of the implements is often coarse, it does not necessarily mean that the Orkney flint-smith was a poor craftsman, because on implements which are made from pieces of flint of fine quality the workmanship is often very good. The four leaf-shaped arrow-heads which were found with one of the barbed variety, a scraper, a knife with a ground edge, and a so-called fabricator in the chambered

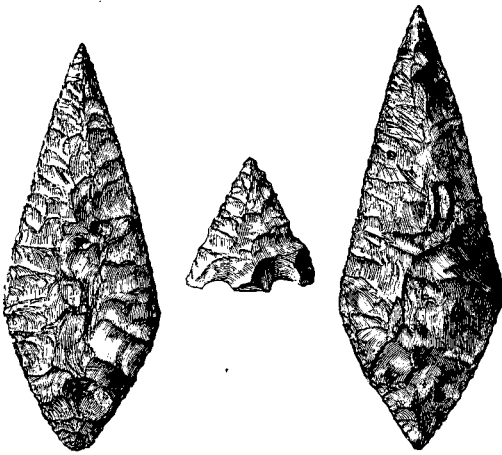


Fig. 3. Flint Arrow-heads, calcined, from Unstan. (†.)



Fig. 4. Flint Fabricator, calcined, from Unstan. (†.)

cairn at Unstan, are still very fine examples, even though they are calcined like the other implements found with them (fig. 3). The fabricator (fig. 4) is a good specimen of this type of implement, and measures  $3\frac{1}{2}$  inches in length and  $\frac{3}{4}$  inch in breadth.

A beautifully flaked flint dagger, measuring  $5\frac{5}{16}$  inches long, and about 2 inches broad at the widest part, was found while cutting peats in Blows Moss, South Ronaldsay, in 1888.

Scrapers on the average are coarser than those found further south (fig. 5), and it is seldom that large examples of other classes of implements occur. A knife tapering to a sharp point at each end, and curved lengthwise, which was turned up by the plough in the Sourin Valley, island

of Rousay, is now in the National Museum (fig. 6). Formed of a flake of greyish flint, with a pinkish tint in places, it is slightly convex on the

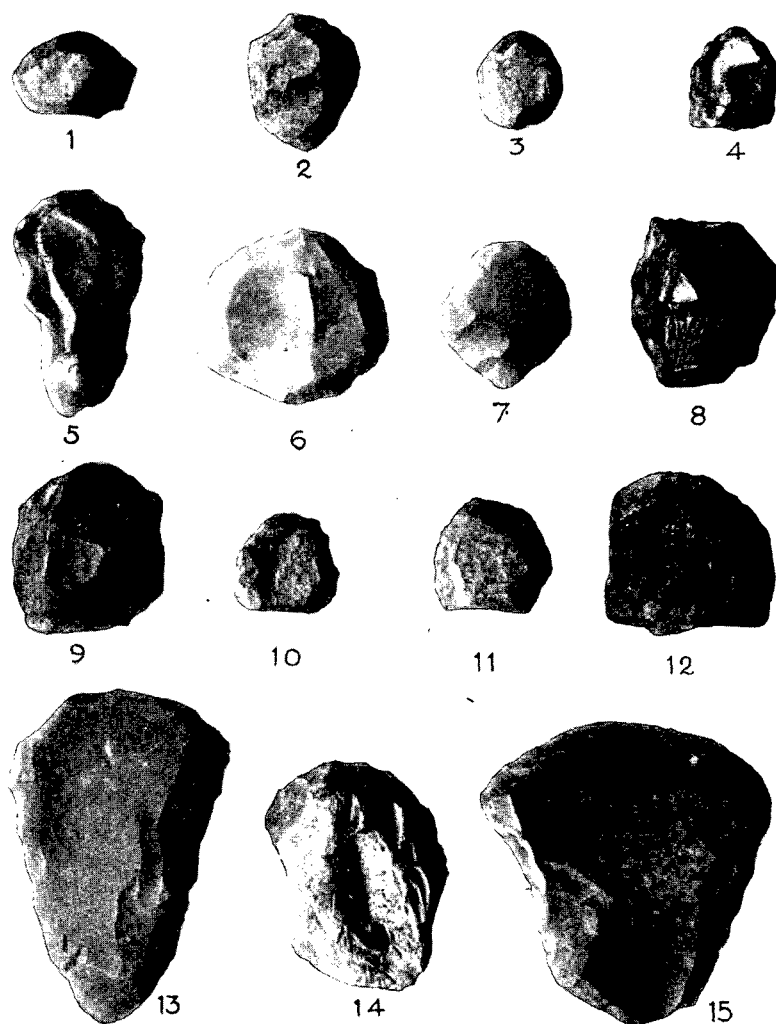


Fig. 5. Flint and Chert Scrapers from Orkney. (†.)

back, which is carefully flaked all over, as are the edges; the under side shows only the natural fracture. The knife measures  $4\frac{3}{8}$  inches in length and 1 inch in greatest breadth. A selection of knives and pointed

implements are illustrated in fig. 7. A small pointed implement from the Hill of Heddle is ground on one side of the point.

Two implements of abnormal shape and size deserve to be noticed. The first (figs. 8 and 9), a roughly flaked implement with a sharp, beaked end, measuring  $3\frac{3}{8}$  inches by  $2\frac{1}{8}$  inches by 1 inch, was found at Upper Brough, Harray, while the other (fig. 10), of oval form and dressed along the sides and round one end, and measuring  $3\frac{1}{16}$  inches by  $2\frac{1}{16}$  inches by  $\frac{1}{16}$  inch, came from Upper Linnabreck, Birsay. Both are of dark yellow flint.



Fig. 6. Flint Knife from Sourin Valley, Rousay.

In a part of the country where flint is scarce and of poor quality one hardly expects to find axes made of it, but nine examples from Orkney can be mentioned. One, a very beautiful, well-polished example of brownish colour, measuring 10 inches in length,  $2\frac{7}{16}$  inches in breadth, and  $\frac{1}{16}$  inch in thickness, was found at Folsetter, Birsay. Another of black and grey flint, measuring  $3\frac{1}{4}$  inches in length,  $1\frac{3}{8}$  inch in breadth, and  $\frac{3}{4}$  inch in thickness, was found at Bain, Quooyloo, Sandwick; and the cutting edge of a third of grey flint at Smoogro. These axes are in the National Museum. Two small, finely polished examples of brown and yellow flint, measuring  $3\frac{5}{16}$  inches by  $1\frac{7}{16}$  inch by  $\frac{1}{8}$  inch, and  $2\frac{1}{8}$  inches by  $1\frac{1}{4}$  inch by  $\frac{3}{8}$  inch, respectively, were found in the first excavation at Skara Brae. A fragment of the cutting edge of an axe of mottled grey colour was also found there by Professor Childe, and I saw another of the same colour, from Appietown, parish of Sandwick, which measured  $3\frac{3}{8}$  inches in length and  $1\frac{3}{8}$  inch in breadth. Another axe, found on Queena, Birsay, is now said to be in a Glasgow collection, and one found on Eday is preserved in Carrick House in that island.

Polished or ground flint implements other than axes are by no means common in Scotland, but three in addition to the four Unstan, Stenness, and Hill of Heddle examples, already referred to, came under my notice in Orkney. One of mottled grey flint, of irregular oval form, and measuring  $2\frac{1}{4}$  inches by  $1\frac{3}{8}$  inch, was found at Appietown. One of yellow-grey colour, of more regular oval form than the last, and measuring  $2\frac{1}{16}$  inches by  $1\frac{3}{16}$  inch, came from Quooyer, Stenness; and part of another, more highly polished than the other two, was found in a field above the Mill Cottage, Broadhouse, Birsay. The last two are preserved in the Museum at Kirkwall.

A small fragment of a carefully ground hammer of mottled brown and yellow flint was found at Bockan, Sandwick.

Judging from the colour and quality of the flint of which the hammer and axes are made, it would seem that, with the exception of the first

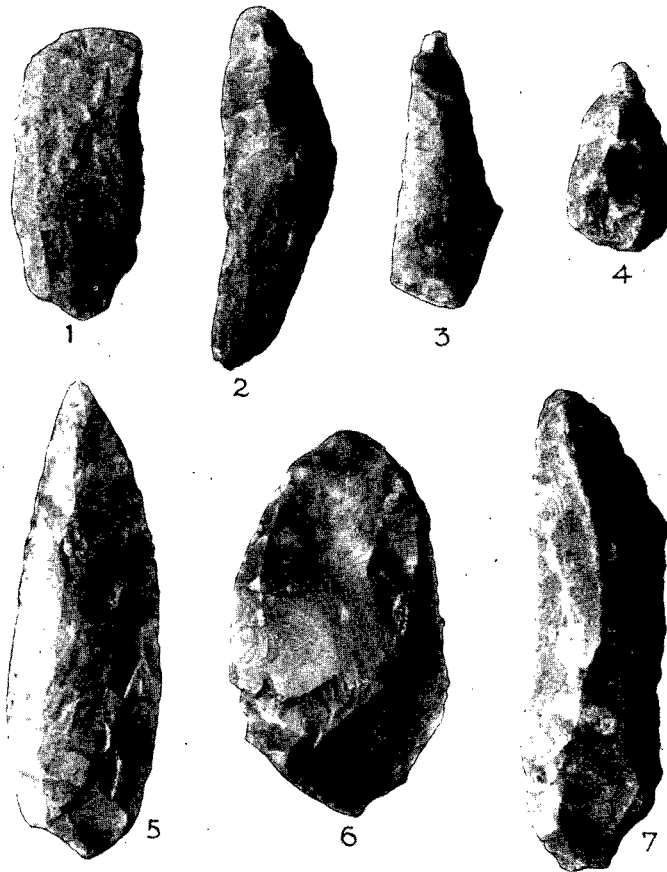


Fig. 7. Flint Implements from Orkney. (†.)

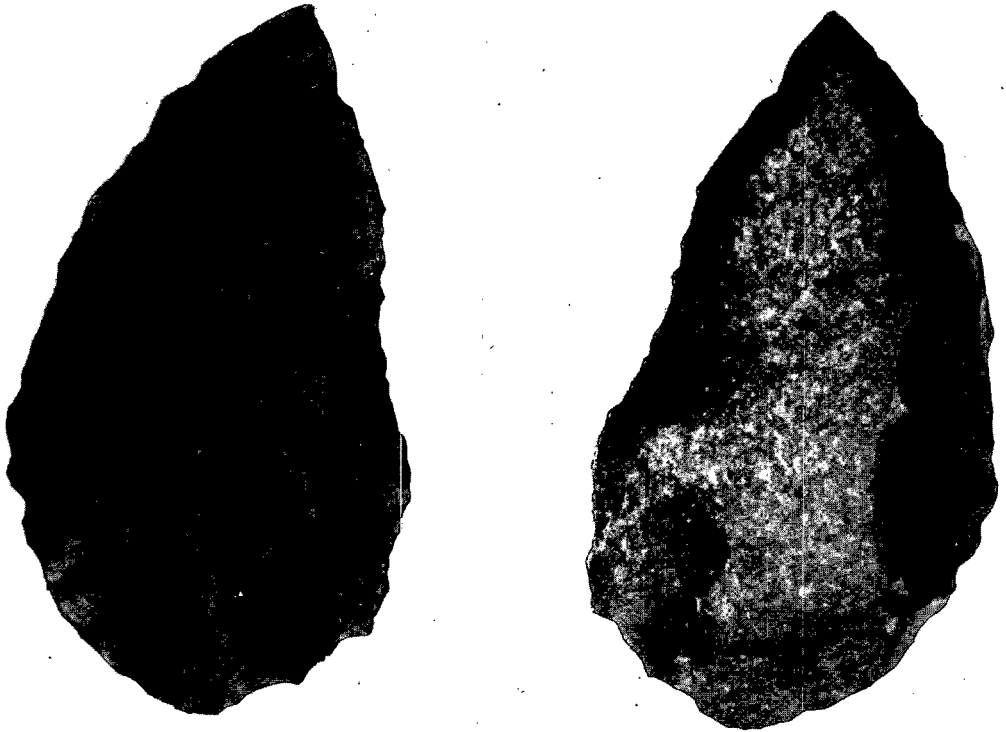
described axe, which was perhaps imported, they probably were of local manufacture.

One of the most surprising discoveries during the excavations at Skara Brae was the identification of the site of a factory for making implements of black chert and flint.<sup>1</sup> Large numbers of flakes, chips, and cores, as

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. lxiv. p. 178.



well as many scrapers chiefly made of chert, were found. I have no doubt that if scrapers and other tools had been as eagerly searched for in Orkney as arrow-heads, many more of this kind of stone would have been discovered. Four scrapers made of it were found at Bookan (fig. 5, Nos. 9 to 12), and the well-made lozenge-shaped arrow-head of the same material, already mentioned, at Appietown.



Figs. 8 and 9. Flint Implement from Upper Brough, Harray. (4.)

In the National Museum is an axe of grey chert, measuring  $6\frac{1}{8}$  inches in length,  $2\frac{1}{8}$  inches in breadth, and  $\frac{7}{8}$  inch in thickness, from Stenness.

It may be mentioned that black and white cherts occur in clay-stone to the west of Stromness.

*Neolithic Pottery from Taiverso Tuick.*—Two years ago in my paper to the Society on “Scottish Neolithic Pottery” I hazarded the opinion that the urns found in the extraordinary two-storied chambered cairn at Taiverso Tuick, Island of Rousay, belonged to the Neolithic Period,<sup>1</sup>

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. lxiii, p. 54.

although they had been described as cinerary urns of the Bronze Age.<sup>1</sup> My reason for this was that the ornamentation on the shards, as seen in the illustrations of them, was suggestive of the earlier period.<sup>2</sup> In the cairn, remains of burnt and unburnt human skeletons were found in addition to the pottery, and in the entrance passage to the burial chamber half of a stone hammer (fig. 17).

The surviving fragments of the Taiverso Tuick pottery have now been presented to the National Museum by Mr Walter G. Grant of Trumland, the owner of the ground on which the cairn is situated. Although all the pottery fragments are small, a most cursory examination of them shows that, instead of being parts of Bronze Age cinerary urns, they are pieces of round-bottomed vessels of the Neolithic Period, exhibiting a close resemblance to the pottery found in the chambered cairn at Unstan, in the adjacent island of Mainland. Not only are the upper parts of the wall of several of the vessels of the same shape, but the style of ornamentation on them is practically identical.

It may be recalled that the greater number of the Unstan urns were flat, round-bottomed bowls, with an almost vertical or slightly everted wall, and a more or less pronounced carination where it joined the rounded basal portion of the vessel. The upper part of the wall of these urns was generally decorated with alternately reversed triangles, filled with lines drawn parallel to one of the sides, these lines being formed sometimes by the steady pull of a sharp-pointed instrument, but more often by pressing the implement into the clay, dragging it back a short distance, and repeating the process, and thus forming the so-called stab-and-drag line. In addition there were fragments which had formed parts of plain,



Fig. 10. Flint Implement from Linnabreck, Orkney. (3.)

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. xxxvii. p. 80.

<sup>2</sup> *Ibid.*, vol. xxxvii. p. 81, figs. 3 and 4.

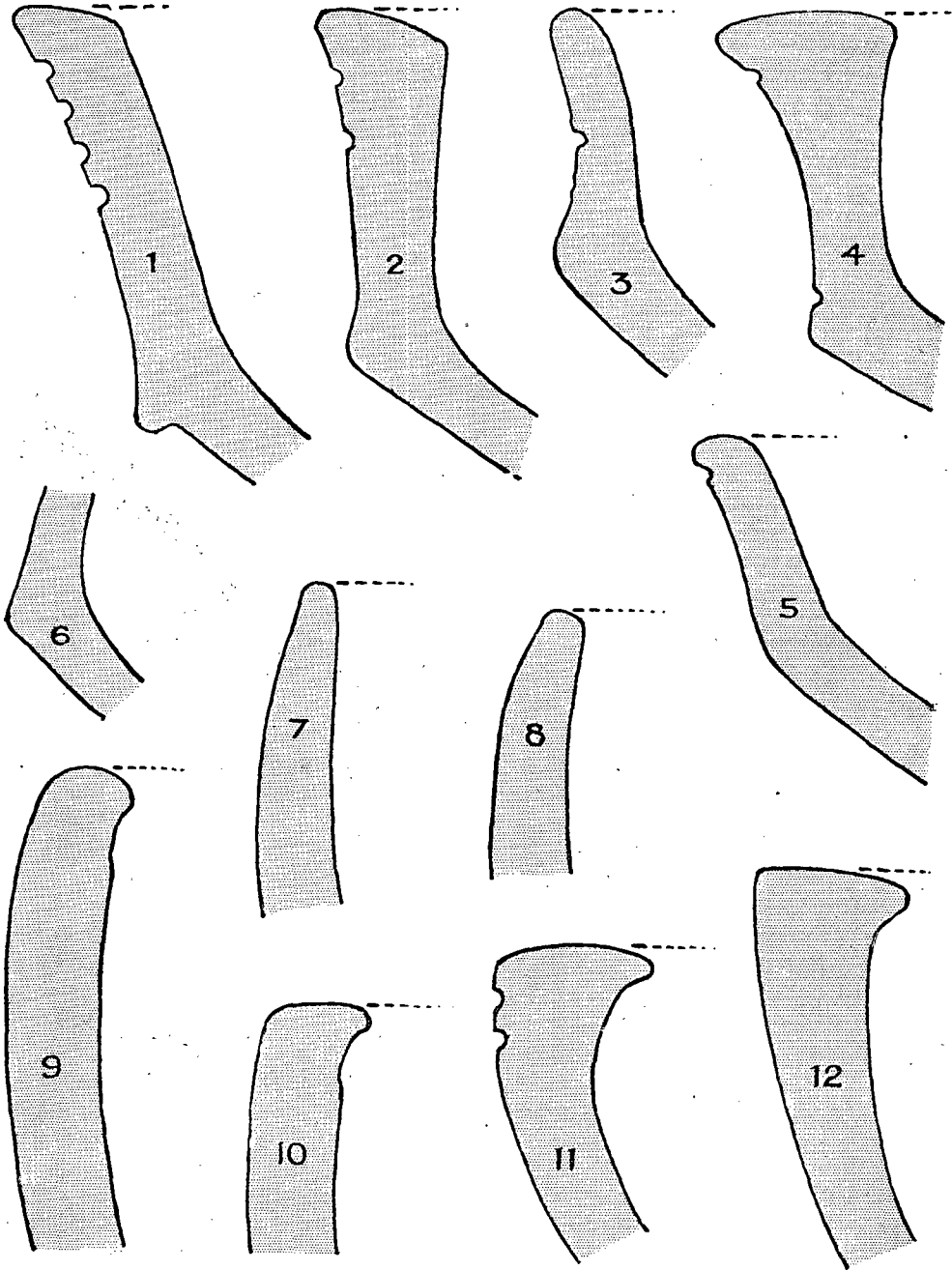


Fig. 11. Sections of Rims of Neolithic Urns from Taiverso Tuick, Orkney. (1.)

unornamented vessels with an almost vertical wall and rounded base, and one piece which was decorated with finger-nail impressions.

Among the Taiverso Tuick shards more than fourteen vessels are represented. Six have been of the flat, wide-mouthed, carinated variety (fig. 11, Nos. 1 to 6), of which two typical examples from Unstan are

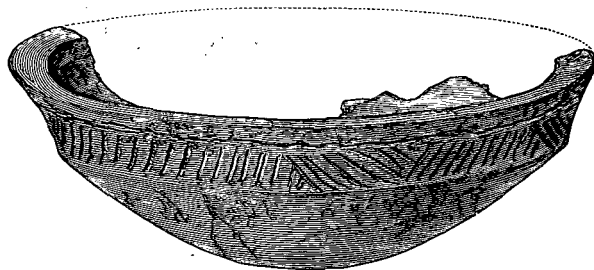


Fig. 12. Neolithic Urn from Unstan.

illustrated in figs. 12 and 13. Two are wall fragments of different vessels, far too small to indicate their form, but showing undoubted Neolithic ornamentation (fig. 14, Nos. 5 and 6). One with an incurved rim (fig. 11, No. 11), and bearing stab-and-drag designs, has had a round bottom. The remaining five have been plain, unornamented vessels

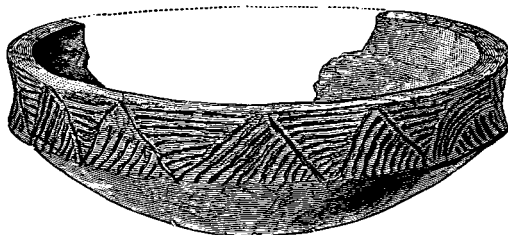


Fig. 13. Neolithic Urn from Unstan.

with walls almost vertical in their upper parts (fig. 11, Nos. 7 to 10). Besides these there are several shards which seem to belong to other vessels, but they are too small to allow of their form being ascertained.

The pottery is of good quality; it is fairly hard in texture, but differs greatly in colour, some of it being very dark, some of it yellowish, and some of it with a pink tinge.

Three of the vessels bear simple incised lines (fig. 14, Nos. 1 and 2), four have stab-and-drag designs (fig. 14, Nos. 3 to 5), and one shows finger-nail impressions (fig. 14, No. 6).



Fig. 14. Fragments of Ornamented Neolithic Urns from Taiverso Tuick, Orkney. (4.)

Owing to the small size of the fragments it is impossible to determine the dimensions of the vessels, but some of them were certainly over 10 inches in diameter at the mouth.

*Rudely Fashioned Stone Axes.*—Nearly twenty stone axes have been found during the Skara Brae excavations, of which more than half are peculiar in being of rude, unsymmetrical form (fig. 15).<sup>1</sup> These have been fashioned with a minimum of labour. Sometimes a water-worn stone with a thin edge that would require little sharpening was chosen, and after being roughly dressed into shape, the cutting edge and parts of the surface were ground, but there seems to have been no desire to polish the whole of the axe. It might be thought that such crude axes were restricted to Skara Brae, but this is not so, as I have seen half a dozen equally rude specimens which were collected off about 70 acres on the farm of Bookan: as at Skara Brae, several other better ground axes were also found here, but they were of small size. Axes formed of pebbles of suitable shape and ground only on part of their surface are occasionally found in other parts of Scotland, but they are not nearly so common as in Orkney. Seeing that a considerable number of particularly fine, beautifully polished stone axes of large size have been found in Shetland, it might have been expected that similar axes would have been found in Orkney as well, but it is quite exceptional to get a large axe there, while a considerable proportion are quite small.

An adze of a dark igneous stone rudely blocked out and only partially ground was found recently by Mr Walter Grant near the broch at Westness, Rousay, which he is excavating. Mr Grant most generously presented it, along with the fine stone hammer found on Egilsay, which is mentioned later, to the National Museum.

*Broken Stone Hammers.*—One of the most surprising things to be noted in considering prehistoric relics found in Orkney is the number of perforated stone hammers from these islands which have been broken across the hole for the haft (figs. 16 and 17). In the Museum at Kirkwall there are three examples—two from Tankerness, parish of St Andrews, and one from an unknown locality, but doubtless from one of the islands. In the National Museum there are three from Bookan (fig. 16, Nos. 1, 4, and 6), two from Bockan (fig. 16, Nos. 3 and 8), one from Grind, Tankerness (fig. 16, No. 5), one from Skara Brae, and one from Lamaness, in the island of Sanday (fig. 16, No. 7); also there is an example in the Skail Collection without a locality (fig. 16, No. 2). Another was found in the entrance passage of the chambered cairn at

<sup>1</sup> Other rudely formed axes from this site are illustrated in our *Proceedings*, vol. vii. p. 218, pl. xlii. Nos. 2, 53, and 54.



Fig. 15. Stone Axes from Skara Brae, Orkney. ( $\frac{1}{2}$ .)

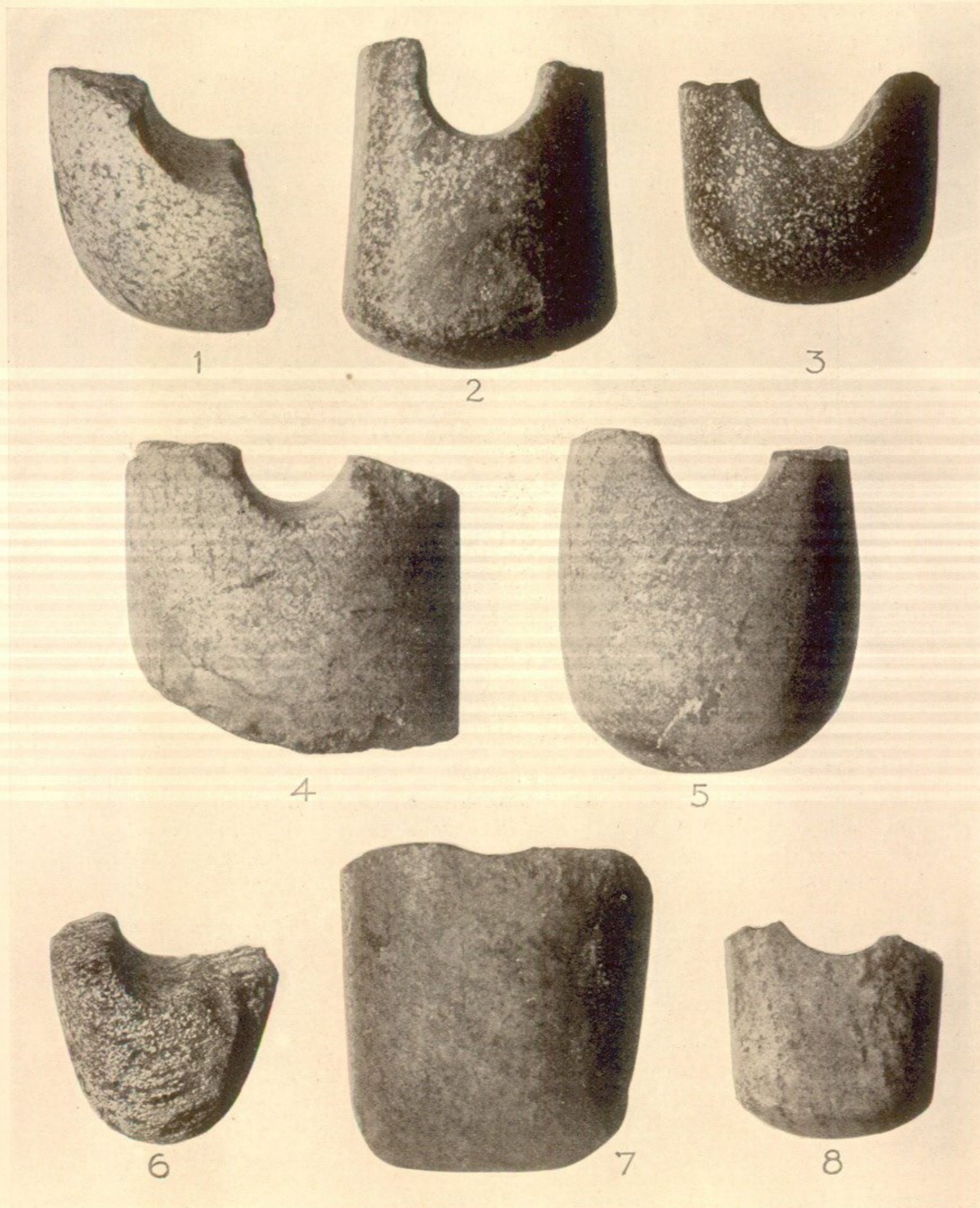


Fig. 16. Broken Stone Hammers from Orkney. (3.)



Taiverso Tuick (fig. 17).<sup>1</sup> Besides these which are of stone there is the small fragment of one of mottled brown and yellow flint found on Bockan, already referred to. This makes a total of fourteen, of which ten, if not twelve, were found on Mainland, not a very large island. It may be mentioned that the six from the adjoining farms of Bookan and Bockan were collected from an area of less than 200 acres of arable ground. In all these fourteen cases only one-half or less of the hammer has been found. All the specimens except the two from the chambered cairn at Taiverso Tuick, and the earth-house at Skara Brae, seem to have been chance finds unassociated with structures or



Fig. 17. Half of Stone Hammer found at Taiverso Tuick. (†.)

other relics. Had a number of them been found in graves we might have been justified in surmising that they had been broken deliberately and ceremonially before being buried with the dead. This seems to have been done in the case of a stone axe-hammer found at Strichen, Aberdeenshire, in close proximity to the outside of an inverted cinerary urn of the cordoned type, one-half lying on one side of the urn and the other half on the opposite side.<sup>2</sup> As it is, the Orkney hammers show no signs of battering or of having been broken by use. We have one in the Museum, of regular oval form, which came from the island of Westray. The perforation is in the centre and the hammer is broken right across it, but both halves have been recovered.

In addition to these the following complete specimens have been

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. xxxvii. p. 77, fig. 2.

<sup>2</sup> *Illus. Cata. of Specimens from Interments in the Anthrop. Museum, Marischal College, University of Aberdeen*, p. 20, figs. 18 and 21.

reported from Orkney. One of flattened oval cross-section, tapering in a regular line from the face to the butt, was found at Bloody Quoy, Deerness. One of oval shape, rather narrower behind the perforation than before, and with the ends flatly rounded, was found near Birsay; while another of similar shape was found in Orkney, although the specific locality is not known. Three of flattened oval cross-section, and tapering to blunt chisel-like ends, fall to be noted—one found at Smoogro, another at Orphir, and the third from the Skaill Collection. Another of flattened oval section, and tapering regularly from the face to the butt, was found on Egilsay. All these are in the National Collection. One of oval shape and of very flat oval section, from the island of Sanday, is preserved in the Museum at Kirkwall. A well-preserved example of the same shape as the Smoogro and Orphir hammers from Grind and another of similar cross-section but slightly convex lengthwise on the upper side, and flat below, from Hill of Oraquoy, Firth, are in private hands.

Twenty-five stone hammers, either broken or whole, have thus been recorded from Orkney, and of these certainly sixteen, perhaps twenty, were found on Mainland. This is a very large number from such a small bit of country, and I doubt if any district of similar area in the British Isles could show equal results.

While dealing with the subject of Orkney stone hammers a few words may be said about the stone axe-hammers from the same islands. Only three of these have come under my notice. They are all of the type with a large semicircular cutting edge, deep crescentic hollows on the top and bottom edges, and a tapering flat butt, the hole being drilled in the centre of the depressions on the top and bottom edges. One was found at Sandwick, another beside a cist in a burial mound at Whitehall, Stronsay, and the third came from the Skaill Collection. While the three resemble each other in shape, they have another common peculiarity inasmuch as none of them is perforated. In the first, the boring of the hole has been started from each edge and carried in only about  $\frac{1}{2}$  inch, in the other two it has not been begun.

*Hammer of Cetacean Bone.*—This hammer came from the Skaill Collection, and the exact locality where it was found is not known. The object curves downwards, tapers slightly towards flattened ends, and it is of vertical oval section (fig. 18). It measures  $4\frac{11}{16}$  inches in length, and  $1\frac{5}{16}$  inch and  $1\frac{1}{4}$  inch in cross diameters. The perforation, which is oval and centrically placed, measures  $\frac{5}{8}$  inch by  $\frac{1}{2}$  inch in diameter at the top; it widens downwards, but its exact dimensions on the under side cannot be ascertained because notches have been cut on this part. The ends show no signs of abrasion by use.

Regarding the period of the hammer, we would have had little hesitation in assigning it to the Bronze Age had it been made of stone. But three hammers made of the same material, cetacean bone, were found in an earth-house at Foshigarry, North Uist, which belongs to

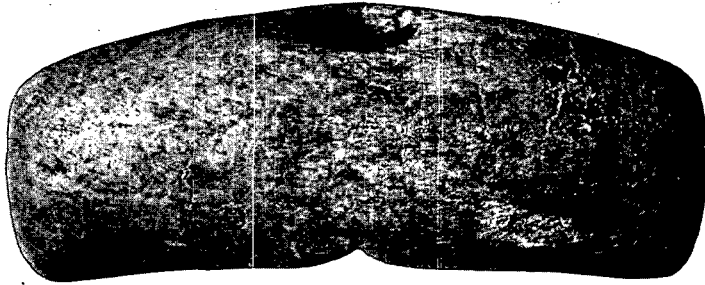


Fig. 18. Hammer of Cetacean Bone from Orkney. (†.)

the period of the brochs. These, however, are rudely made, and show signs of having been used for hammering, while the Orkney specimen is carefully made, and seems to have been reserved, like so many of our stone hammers, for ceremonial use. A large hammer-head of the



Fig. 19. Carved Stone Ball from St Thomas's Kirk, Orkney. (†.)

same material, measuring  $9\frac{3}{4}$  inches in length, was found in the Keiss Broch, Caithness.

*Oval Carved Stone Ball.*—This ball, which was found on the site of a broch at St Thomas's Kirk, Hall of Rendall, is of regular oval shape, and measures  $3\frac{9}{16}$  inches in length and  $2\frac{1}{4}$  inches in diameter at its widest part (fig. 19). It bears a strong resemblance to the "Mills Bomb" used in the Great War, its exterior being covered with carved pyramidal projections, which, originally pointed, are now truncated and

flattened by tear and wear and the disintegration of the stone. The protuberances, which are of irregular width, are arranged in ten longitudinal rows containing either four or five in each, with four more at both ends: they number fifty-five in all.

The object is obviously a variety of the Scottish carved stone ball, and at once recalls the specimen of regular spherical form with sixty-seven similar projections, which was found at Skara Brae during the first excavations, and another with thirty from Stenness. Not only do the three balls resemble each other in the form of the knobs, but the arrangement of them in distinct rows is the same in all. The first



Fig. 20. Ornamented Stone Object from Orkney. ( $\frac{1}{3}$ .)

two sites lie only twelve miles apart, and the third is situated between them.

*Ornamented Stone Object.*—This relic is nearly square in section, and tapers towards both ends in a convex curve, each side being a pointed oval on plan (fig. 20). It measures  $3\frac{1}{8}$  inches in length, and the four sides vary from  $1\frac{7}{8}$  inch to  $2\frac{3}{8}$  inches in width at their widest part. They are each ornamented with a large lozenge filled with a lattice design, irregularly incised. Both ends and the centre of each side are battered, but this has probably been done at a period long after the purpose or significance of the object had been forgotten.

The exact locality where it was found is not known, but as it was preserved at Skaill it is very probable that it was found in the neighbourhood.

Its purpose is not known and its period is obscure. The ornamentation which it bears resembles that on some of our beaker urns and

small bronze blades of the Bronze Age, but this does not necessarily mean that it should be assigned to that period. Very similar designs appear on the edges of two stones built into Skara Brae earth-house,<sup>1</sup> and on a small rectangular slab found in it. Lozenge patterns are to be seen on the edge of a slab discovered near a group of short cists at Stenness.<sup>2</sup> As no datable relics were found in these graves their exact period is not known. The probability is that the incised object belongs to the time of the occupation of the Skara Brae earth-house.

*Pointed Oval Stone Objects.*—Two of these peculiar articles, like the



Fig. 21. Pointed Oval Stone Objects from Orkney. (†.)

last described object, came from the collection at Skaill, and although their provenance is unknown, it may be taken that if not found in the neighbourhood, they were found in some part of Orkney (fig. 21). They are vesica-shaped in longitudinal section and circular in cross-section, their measurements being  $3\frac{1}{8}$  inches in length and  $1\frac{5}{16}$  inch in greatest diameter at the centre, and  $2\frac{1}{8}$  inches in length by 1 inch in diameter. When they were made and what they were made for is not known.

*Burnished Hematite Objects.*—Pieces of hematite polished on various parts of their surface have been found in many parts of Scotland,

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. lxiv. pp. 183 and 184, figs. 20 and 21.

<sup>2</sup> *Ibid.*, vol. ix. p. 34.

from Orkney in the north-east to Wigtownshire in the south-west, and from East Lothian in the south-east to Harris in the north-west (fig. 22). They vary greatly in size, from a fragment, polished on two sides, and measuring only  $\frac{2}{3}$  inch in length,  $\frac{2}{3}$  inch in breadth, and  $\frac{1}{4}$  inch in depth, to an irregularly rounded nodule, rubbed over the greater part of its surface, and measuring  $4\frac{1}{3}$  inches in length,  $2\frac{3}{4}$  inches in breadth, and  $2\frac{1}{2}$  inches in thickness.

In the National Museum there are fourteen specimens from the Glenluce Sands, Wigtownshire; two others from the same county—one from Kirkcolm, and the other from an unspecified locality (fig. 22, No. 5); two from the Culbin Sands, Morayshire; and single examples from Machrihanish, Kintyre, Argyll, the island of Harris, in the Outer Hebrides, and Upper Brough, Harray, Orkney (fig. 22, No. 2). None of them was found in association with other relics by which their period might be ascertained. Besides these, there are eight more from the fort on Traprain Law, East Lothian (fig. 22, No. 6), one from the Broch of Harray, Orkney, and one from the Airrieoulland crannog, Wigtownshire. We have thus thirty-one examples from ten localities, of which two came from two places in Orkney.

During the earlier and later excavations of Skara Brae no less than sixteen of these objects were found (fig. 22, Nos. 1 and 4), and I have seen three from Bookan and one from Appietown, both in the parish of Sandwick. With the two in the National Museum this makes a total of twenty-two specimens from five localities in one island, Mainland, in Orkney.

It is not evident what these objects were used for, although it has been suggested that they may have been ground down for red pigments. Sometimes they are rubbed only on one or two sides or facets, but at other times they are highly polished all over. As the material is very hard, they must have been subjected to a great deal of use, seeing the surface is often brilliantly burnished. One small piece from the Glenluce Sands, and another from Traprain Law, look as if they had been rubbed with a rasp, and one of the largest, from Skara Brae, which is beak-shaped at one end, has been ground all over but not polished. The example from Harris has a small hole,  $\frac{1}{18}$  inch in diameter, drilled through it (fig. 22, No. 3). They seem to date to the early centuries of this era; at least those from Traprain Law, the Broch of Harray, and the Airrieoulland crannog certainly belong to this time. Nodules of hematite are found in sandstones in Orkney.

*Steatite Urns.*—Urns of stone, usually steatite (soap-stone), have been found not infrequently in graves in the extreme north-east of Scotland, in Orkney, Shetland, and Caithness. As a rule they are

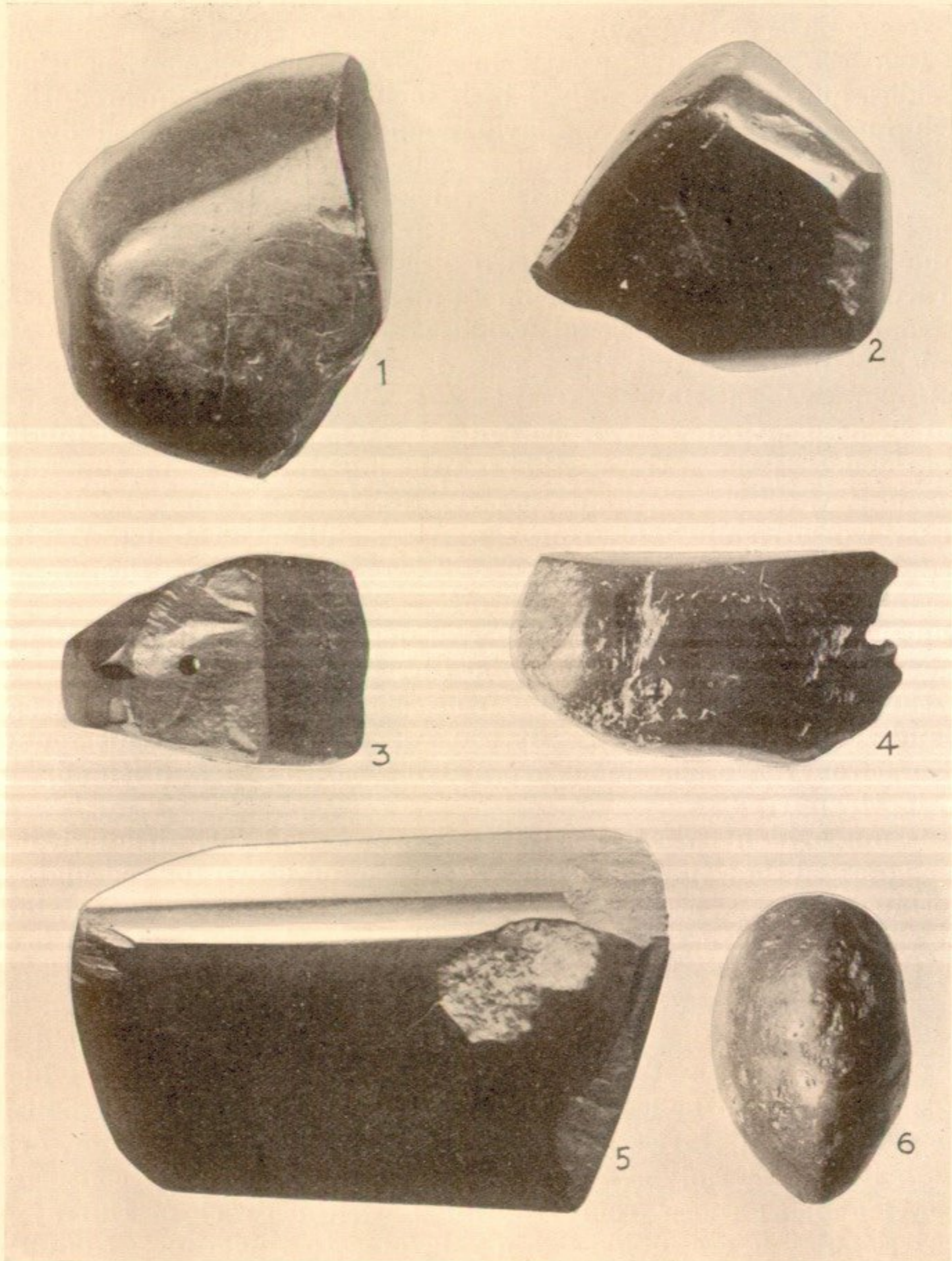


Fig. 22. Burnished Hematite Objects—Nos. 1 and 4, Skara Brae; No. 2, Upper Brough, Orkney; No. 3, Harris; No. 5, Wigtownshire; No. 6, Traprain Law, East Lothian. ( $\frac{1}{2}$ .)

irregularly four-sided or sub-oval in form. These urns vary greatly in size, one being no more than  $2\frac{3}{4}$  inches in height, while another is no less than 20 inches. They occur with burnt and unburnt human remains, more frequently with the former, in stone cists in mounds. Generally no other relics by which they could have been dated have been found with them, but as urns of the same material have been found in Viking graves in Norway, it was believed that the Scottish examples belonged to times later than those of the Bronze Age when cremation was practised. However, Professor Brøgger considers that an example from Blows, Deerness, belongs to the Bronze Age. One was found with calcined bones and a small clay urn, measuring 5 inches in height and 5 inches in diameter, in a cist in a mound at Stenness, Orkney,<sup>1</sup> but as the urn fell to pieces and as nothing regarding its shape or ornamentation was recorded, its type or period is not known. It may be mentioned that another clay urn, which is preserved in the National Museum, was found in a short cist in the Knowe of Saverough, Birsay.<sup>2</sup> This vessel resembles some of our Iron Age pottery much more than that of the Bronze Age.

Two interesting examples of steatite urns, quite different in form from any of those just referred to, were shown to me while in Orkney. The first was found on the farm of Bookan, nearly twenty years ago, by Mr Peter Irvine, while ploughing. Part of the rim was broken off by the sock of the plough, but otherwise it was uninjured. A peculiar feature was that a hole had been broken through low down on the side, and the fragment knocked out had been replaced and maintained in position by two crossed clasps made of thin iron rods. The most of the iron had rusted away, but the ends of the rods where they are inserted into the stone still survive. The urn is hemi-spheroidal in shape, and measures 12 inches in external diameter at the mouth, and  $4\frac{1}{2}$  inches in height, the wall being  $\frac{1}{2}$  inch thick at the lip. No relics of any sort were noted in the vicinity of the urn. It seems to have been a not uncommon practice to mend steatite urns when they got cracked.

There is one urn of this type in the National Museum which is believed to have come from Orkney (fig. 23). It measures  $13\frac{1}{2}$  inches in diameter at the mouth and  $7\frac{1}{8}$  inches in height, with a wall  $\frac{9}{16}$  inch thick at the rim. A fragment of another found in a kitchen-midden on the beach at Crosskirk, Westray, and a complete one from Walls, measuring  $9\frac{1}{2}$  inches in diameter at the mouth and  $5\frac{1}{4}$  inches in height, with a wall  $\frac{5}{8}$  inch thick, are preserved in the Kirkwall Museum.

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. ii. p. 60.

<sup>2</sup> *Ibid.*, vol. v. p. 10, Pl. i. No. 1.



These four vessels are of a Viking type, as may be seen by comparing them with one illustrated in Rygh's *Norske Oldsager*, fig. 729.



Fig. 23. Steatite Urn from Orkney. (4.)



Fig. 24. Steatite Urn from Clestrain, Stronsay, Orkney.

The second belongs to the small variety of steatite urns, and is a beautifully formed vessel (fig. 24). It was found in a small stone cist with a cover-stone, under the gig-shed at Clestrain, Stronsay. Though

complete when found, it was broken later on. It has an almost circular mouth, under the rim it is constricted, and then the wall swells outwards a little before curving in to the bottom, which is round but for a small flattened space at the base. The vessel measures  $3\frac{7}{8}$  inches and  $3\frac{3}{4}$  inches in cross diameters at the mouth, and  $3\frac{1}{4}$  inches in height, the wall being  $\frac{9}{32}$  inch thick at the rim and  $\frac{13}{32}$  inch at the thickest part.

#### SKARA BRAE: ITS CULTURE AND ITS PERIOD.

The underground buildings at Skara Brae are noteworthy in many respects. They comprise the largest group of inter-communicating earth-houses so far excavated and recorded in Scotland, they contain an extraordinary assortment of internal fittings, and they have yielded a large collection of relics, which is as remarkable for the absence of certain classes of antiquities as for the abundance of others, some of which are either unique or rarely found in Scotland. In consequence there has been a considerable divergence of opinion regarding the period of their occupation. Naturally, one would assign the monument to the period of the other Scottish earth-houses, which are contemporary with the brochs and crannogs—that is, to the late part of the Scottish Early Iron Age, about the beginning of the Christian era. But as long-handled weaving combs, spinning whorls, querns and stone lamps, typical broch relics, were not found, and as some very characteristic objects of Stone Age types, such as about twenty stone and flint axes, more than a hundred and fifty scrapers and many cores, chips and flakes of black chert and flint, three peculiar relics resembling three others found in an Orkney chambered cairn, a deer-horn socket for a stone axe, and bone hoes which in some continental countries belong to the Stone Age, were unearthed, it has been argued that the stage of civilisation of the inhabitants was not that of the brochs.

In another publication Professor Gordon Childe has expressed the view that this underground village was inhabited by a people still in the Stone Age, though probably contemporary with the Iron Age further south. It is difficult to see how this can be, as the Skara Brae phase of culture, as exemplified both by the style of the buildings and the great majority of the relics found in them, seems to approximate more to the culture of the Iron Age than to that of the Stone Age. Besides, if the inhabitants of Skara Brae were a Stone Age people living in the last centuries B.C., the question of the state of culture of the people who erected the great Bronze Age circle, the Ring of Brodgar,

and the standing-stones at Stenness, within seven miles of Skara Brae, would be difficult to answer.

The beautifully carved tool-box of wood found near the farm of Howe, Evie, about seven miles distant, shows conclusively that at an early part of the Early Iron Age, probably several centuries B.C., iron tools were used in Orkney.<sup>1</sup> This box, which is carved with Late Celtic designs of the best period, contained about fourteen handles of wood, bone and horn for small iron tools as seen by the tangs which remained in some of them.

At the first glance the presence of so many stone axes and so large a number of chert and flint implements, as also the other objects already mentioned, might be taken to indicate that the people of Skara Brae were in the Stone Age stage of civilisation. But a little consideration will show that this does not necessarily follow. Though the stone, chert and flint implements are numerous enough for the purpose, they do not exhibit the characteristic features of a general collection of Orkney Stone Age tools.

The stone axes might pass for true Neolithic examples, but such objects, as well as various kinds of flint implements, continued to be used and made throughout Scotland for many centuries after the working of metals began to be practised. Stone and flint implements have been found in many Scottish Bronze Age graves. Stone axes, single examples only it has to be admitted, have been found in Iron Age structures, in earth-houses at Foshigarry, and Tota Dunaig, Vallay, North Uist, and in a crannog at Lochlee, Ayrshire,<sup>2</sup> in circumstances which gave no indication that they had been used in these buildings for any other purpose than that for which they had been fashioned, although they may have been made in much earlier times.<sup>3</sup> Several were found in the Early Iron Age vitrified fort of Dunagoil, Bute, "the use of which may have survived to the time of the occupation" of the fort.<sup>4</sup> Of course the presence of so many axes at Skara Brae cannot be ignored or passed over lightly, but possibly it might be explained by a scarcity in the supply of metals in Orkney during the Bronze and Early Iron Ages, compelling the continued use of archaic types of implements after they had been discarded in other parts where metals were more plentiful.

The implements of chert and flint consisted chiefly of scrapers, those of chert outnumbering those of flint by three to one. There were hardly any knives or borers, and no arrow-heads. The absence of a fair

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. xx. p. 47.

<sup>2</sup> Munro, *Ancient Scottish Lake Dwellings*, p. 105, fig. 55.

<sup>3</sup> In a kitchen-midden at an earth-house at Udal, North Uist, I found a stone axe with both ends worn away by use as a hammer-stone.

<sup>4</sup> *Trans. Buteshire Nat. Soc.*, 1925, p. 58, Pl. iii.

proportion of these objects is quite contrary to what is found in a typical Orkney Stone or Bronze Age collection like that from Bookan already described,<sup>1</sup> so is the preponderance of chert over flint. This last collection had been carefully gathered together, and while it contained arrow-heads, knives, and borers, as well as scrapers, there were only four implements of chert against sixty-four of flint, the implements of chert being scrapers. The Skara Brae scrapers are for the greater part small and poorly made. It is not surprising that those of chert should be rudely formed as the material is difficult to work. But the scrapers of flint are much smaller than in a general Scottish collection, and the workmanship on them is inferior. Indeed, they do not at all resemble the products of Stone Age flint workers, but rather look like the debased output of a people who had lost the art of flaking flint, and who had only fallen back on this material to supplement their scanty kit of metal tools. The chert or flint scraper would be quite an efficient tool for the dressing of hides, which seems to have been an important industry at Skara Brae. As in the case of stone axes, flint implements have occasionally been found in crannogs and brochs along with Iron Age relics. These, however, seem to belong to an earlier period, but having been picked up and found suitable for certain purposes, were made use of in later times.

Amongst the many strange relics from Skara Brae are two stone objects which may be considered unique—the three-limbed implement, ornamented with incised lozenge designs, and the oval object with four pointed projections at each end and the body decorated with alternate groups of vertical and horizontal grooves—but they seem to belong to the same class of relics as the three-pointed implement and the object with two-pointed projections at each end, both of stone, found in a Stone Age chambered cairn at Quoyness, Orkney. A stout bone pin with a projection on the stem near the head was also found in the cairn, and it may be likened to the broken pins of smaller size, with similar projections on the stem, which were unearthed at Skara Brae. These three Quoyness relics have always been an enigma to Scottish archaeologists, and it was a pleasant surprise that objects of nearly similar character should turn up at Skara Brae.

It was a fair inference that if the Quoyness examples belonged to the Stone Age, those from Skara Brae must have been made by a people in the same state of civilisation. But there is a very strong probability that these objects may belong to a later time, and may have been deposited in this Stone Age grave, to which access could be obtained through its entrance passage, centuries after it had fallen into disuse

<sup>1</sup> *Supra*, p. 79.

as a place of burial.<sup>1</sup> It may be recalled that Dr Joseph Anderson found a number of small Bronze Age discoid beads of shale or jet in a Stone Age horned cairn at Yarhouse, Caithness.

Stated alone, the arguments that the presence of the stone axes and flint and chert scrapers at Skara Brae did not necessarily indicate a Stone Age occupation, but were perhaps only examples of early types of implements surviving to later times, and that the three objects from the Stone Age cairn had been placed in it subsequent to the time when it was used as a place of burial, might not count for much, but when ranged alongside the evidence of other classes of antiquities from Skara Brae, which belong to the Iron Age, they are worthy of consideration.

As for the deer-horn socket for a stone axe, it is not a typical Scottish Stone Age relic, seeing it is the first to be recorded from Scotland. These objects are well known as Stone Age antiquities in Denmark and France. However, on the strength of the occurrence of the only Scottish specimen in what Professor Childe considers a building inhabited in the Iron Age many hundreds of years after their period on the Continent, it is rather much to claim that the Skara Brae people were in the same state of culture as the French or Danish prehistoric people who made them, unless we can prove continuity of use over centuries.

Regarding the perforated bone hoes, such implements, but made of deer-horn, have been recorded from Stone Age sites in Denmark. Only one other specimen outside those from Skara Brae has been recorded from Scotland, and like them it was made out of a leg bone of an ox. This solitary example was discovered in a mound containing cists and other stone structures at Saverough, Birsay, Orkney, six miles from Skara Brae. One of the cists contained the remains of a human skeleton, and a vessel of clay which resembles broch pottery more than any other class of Scottish prehistoric ware. The main building, in addition to the hoe, yielded an Iron Age small-toothed comb of bone, part of an iron knife, and a handle of deer-horn for a blade or instrument, with the remains of iron rivets still visible.<sup>2</sup> These are preserved in the National Museum, but some bones of whales and quern stones were also found.

There were many shovels made from the scapulæ of cattle found at

<sup>1</sup> After the reading of this paper, Mr J. M. Corrie, Archæologist to the Ancient Monument Commission of Scotland, informed me that when surveying this cairn recently for the Commission he met an old man who had assisted at the opening of it. He said that several stone whorls were also found in the cairn, which he retained. All but one had been given away, but this remaining specimen he gave to Mr Corrie, who presented it to the Museum at Kirkwall. Mr Farrar, in his account of the excavation, states that "a stone for pounding corn" was found with the objects mentioned above "amongst the rubbish" (*Proceedings*, vol. vii, p. 400).

<sup>2</sup> *Proc. Soc. Ant. Scot.*, vol. v. p. 9. This site should not be confused with the earth-house at Saverock, near Kirkwall.

Skara Brae. These implements have been found in Stone and Early Iron Age sites in England,<sup>1</sup> but the only similar example recorded from Scotland came from an Iron Age earth-house at Rennibister, also in Orkney. What might be termed a miniature specimen, for it was made from the shoulder blade of a smaller animal, was found in the Broch of Burray, Orkney.<sup>2</sup>

If we now consider the different kinds of relics found at Skara Brae which definitely belong to the Iron Age, and which go to show that, far from being in the Stone Age state of culture, the inhabitants of the site were in the same state of civilisation as their Iron Age neighbours on the other side of the Pentland Firth, which though a stormy part of the sea is less than nine miles wide at the narrowest part, with several islands intervening so that the widest stretch of water is little over three miles, we find that they include carved stone balls, pieces of burnished hematite, stone pot-lids, small thin blades of bone, and pigments, none of which classes of relics has been recorded from any Neolithic site in Scotland. There is also a broken whetstone which suggests metal tools.

Although large numbers of carved stone balls have been collected in the eastern counties of Scotland, north of the Firth of Forth, not one except those from Skara Brae has been found in direct association with other relics by which their period might be determined. Two are said to have been found in a short cist at Ardkeiling, Strypes, Morayshire,<sup>3</sup> but this record has not been generally accepted as a satisfactory one. Another ball was found in the fort of Dunadd, Argyll, which was occupied early in the Christian era, but although there was nothing to show that it was contemporary with the occupation of the fort, it may well have belonged to that period. Some of the discs on a number of the carved balls are ornamented, and as the designs resemble those of the Early Iron Age and not of the Scottish Stone or Bronze Age, they have generally been allocated to the first-mentioned period. Five specimens were discovered at Skara Brae. One is a normal ball of the commonest type, with six projecting discs. Another with rounded knobs is peculiar only because it is smaller and less regularly rounded than usual. A third is of regular globular form, and differs from others only because its sixty-seven projections are pyramidal in shape instead of being rounded. The remaining two are of small size and irregular contour, and have pointed protuberances. The occurrence of these objects on the site seems to point to the culture of the Iron Age, and the discovery of the oval specimen with pyramidal projections on the site of a broch at St

<sup>1</sup> *Sussex Arch. Collections*, vol. lxvii. p. 139.

<sup>2</sup> *Proc. S. A. Scot.*, vol. lxi. p. 300.

<sup>3</sup> *The Reliquary and Illustrated Archaeologist*, vol. iii. p. 45.

Thomas's Kirk, Rendall,<sup>1</sup> strengthens this view. Incidentally it may be mentioned that another globular ball with thirty similar projections was found at Stenness in Orkney. Not only have these two round balls and the oval one projections of pyramidal form, but at what may be called their opposite polar points, there are four symmetrically placed projections. A similar arrangement is also seen on the peculiar stone object referred to on p. 105 which has been compared with one of the three objects from the cairn at Quoyness. Another stone ball which also bears out this view is the one found at Hillhead, St Ola, near Kirkwall.<sup>2</sup> It is ornamented with pyramidal projections on part of its surface and with grooves, some arranged at right angles to each other as in the Skara Brae specimen. This suggests that these five objects belong to the same period, the Iron Age, and if this is so, the other two relics from the cairn are probably of the same period.<sup>3</sup>

Let us now consider the ground and polished pieces of hematite. Sixteen were found at Skara Brae, and, as we have seen, thirty-five others have been recorded from other parts of Scotland.<sup>4</sup> Eight of these came from the fort on Traprain Law, East Lothian, from levels of occupation dating to the first four centuries of this era, one was found in the Broch of Harray, Orkney, and one in the crannog at Airrieouland, Ayrshire, both Iron Age sites. These do not indicate that the Skara Brae inhabitants were in the Stone Age nor in the Bronze Age, although hematite was used by the inhabitants of Scotland in the latter period, but as a strike-a-light.

Thin circular discs of stone known as pot-lids, ranging from 3 inches to 15 inches in diameter, were found in large numbers at Skara Brae. Similar pot-lids are well-known broch relics; for instance, seventeen, graded in size, were recovered from the Broch of Kettleburn, Caithness. These objects might belong to many periods, but so far they have never been recorded from Stone or Bronze Age sites, either domestic or sepulchral, in Scotland, and they were used long after the Early Iron Age. But we can claim them as characteristic of the broch, as they have not infrequently been found in sets in these buildings. They have also been discovered in earth-houses at Foshigarry, and other places in North Uist. That their use was not general in Scotland during the time of

<sup>1</sup> *Supra*, p. 96.

<sup>2</sup> *Proc. Soc. Ant. Scot.*, vol. xvi. p. 295.

<sup>3</sup> It would not be unreasonable to infer that the Stenness and St Thomas's Kirk balls were made at Skara Brae, their technique being so much alike they might have been carved by the same hand, which also might have been responsible for the object with three points. Further attention might be directed to the two inferior balls and to the perforated ball or mace head found at Skara Brae, which have pointed instead of rounded or flat projections, and betray inferior craftsmanship. The whole group is an interesting one, because no ball with pointed projections seems to have been recorded from any part of Scotland outside Orkney.

<sup>4</sup> *Supra*, p. 99.

the occupation of the brochs is very evident, because we did not find a single *typical* specimen in the fort on Traprain Law. Four circular discs which from their size would have been quite suitable as pot-lids were discovered, but they are partly polished. Small rough slabs have been found with Bronze Age sepulchral pottery in a position which suggested that they had been used as covers for the urns, but they bore no resemblance to the broch or Skara Brae pot-lids.<sup>1</sup>

Amongst the rare types of relics found at Skara Brae were over thirty small, thin blades of bone, some being ground nearly flat on both faces and others on one face only, while they had been rubbed down to a blunt edge at the ends. The only other specimens that I know of are two which were found in the Road Broch, Keiss, Caithness.

No more surprising discovery was made at Skara Brae than the four thousand odd beads fashioned from the long bones of animals and teeth of sheep. Prehistoric beads of bone have been found in brochs, but, all told, their number is insignificant. Indeed it is amazing that so many should be found at Skara Brae and so few elsewhere. The most of the beads from Skara Brae were made by cutting notches round the bones and the teeth and then breaking them across. No work had been expended on the perforation in most of them, as they were made from teeth, and the nerve canal was quite suitable for stringing without further treatment. Many from the root of the tooth have so small a hole that only the thinnest needle can pass through it. Some of the larger beads made from bones, however, have had their natural cavities enlarged, but not with stone or flint tools as would have been the case had the makers been in the Stone Age. The artificial perforations seem to have been made with metal tools. Again, there are several hundred discoid beads, measuring from  $\frac{1}{16}$  inch to  $\frac{5}{16}$  inch in thickness, which seem to have been sawn with metal tools. No bone beads have been met with on any of our Scottish Stone Age sites, but a few have been recovered from Bronze Age graves. These were different in character from the Skara Brae beads as a whole. Discoid beads of jet or shale are well-known Bronze Age ornaments, but these are circular in section, while the Skara Brae specimens are often irregularly rounded. I have examined all the chert, flint and stone implements from Skara Brae most carefully, and cannot find one which could have sawn the discoidal beads or enlarged the cavities in some of the beads. There is only one pointed implement of flint which might have been used as a borer, but it could never have formed the perforations in some of the larger beads.

There are a few pointed implements, perhaps awls, of bone with

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. lii. p. 133.



perforations in the head. They do not seem to be needles, because the top is too broad. The perforations in them appear to have been drilled with a metal borer.

We now come to the red and brown pigments from Skara Brae. Not only were they present in small masses, but traces of them were seen in small mortars made of stone and the vertebræ of mammals. Doubtless, pigments were used by the prehistoric inhabitants of Scotland from very early times, and though they do not seem to have been recorded from any of our Neolithic or Bronze Age sites, a small block of red colouring matter was discovered in the Azilian deposit at Caisteal nan Gillean in Oronsay. Only other three records of such finds are known to me. A few small lumps of red pigment were found in one of the crannogs in Bishop Loch, Lanarkshire, a few miles east of Glasgow, which also yielded a socketed iron axe; Mr J. Hewat Craw recovered small quantities of red, brown, and yellow pigments in the Broch of Aikerness last summer, this broch lying less than ten miles from Skara Brae, and a small block was discovered in the earth-house at Bac Mhic Connain.

We have just seen that small stone mortars containing traces of pigments were found at Skara Brae. Some of the smaller hollowed stones, however, may have been used for other purposes, and these may be compared with similar receptacles found in a number of Orkney and Caithness brochs. As for larger hollowed stone vessels, a good variety was unearthed at Skara Brae, and many more have been found in brochs. Also, examples made from the vertebral bones of whales are common to Skara Brae, brochs, and Hebridean earth-houses.

The dorsal plate of a whale artificially worked from Skara Brae is not a common Scottish relic, but three have been found on Iron Age sites in Lewis and North Uist, two being from earth-houses.

No stone lamps like those found in brochs were recorded from Skara Brae, but there was less need for them there. None of them was found in any of the half-dozen earth-houses excavated by Mr Erskine Beveridge in North Uist, although some of them had long, low-roofed passages. The chambers in these structures would be lit from the fire or through the orifice in the roof above it, but lamps would be required when going into the long superimposed galleries within the thickness of the wall of the brochs.

An object of sandstone resembling a ship's block in general form, with a groove running round it lengthwise and a depression at one end, came from Skara Brae. The only Scottish parallel to it that I have seen, is one discovered in a kitchen-midden adjoining what appears to have been an earth-house, in one of the mounds known as the Birkle Hills, Keiss,

Caithness, a bone and a stone whorl, some chipped pieces of flint, and a bone pin having also been found.<sup>1</sup>

Nothing is more important for dating prehistoric sites than pottery, and a considerable quantity was found at Skara Brae, but it did not bear the slightest resemblance to the Stone Age pottery of Orkney, of which we have a large collection in the National Museum, nor, for that matter, to pottery of this period from any other part of Scotland. None of the shards gave any indication that the vessels had been round-bottomed like our Stone Age pottery in general. But a number of basal fragments were recovered, and these all belonged to flat-bottomed vessels. The Skara Brae pottery bore a wealth of decoration. Even the inside of some of the basal shards was ornamented. Encrusted designs, that is, applied patterns in relief, were common, but though this form of decoration occurs on Bronze Age cinerary urns in Scotland, the north of England, and Ireland, the patterns on the Skara Brae ware are different. Applied ornamentation is very common on the pottery of the earth-houses, brochs, and kitchen-middens of the Hebrides, and is seen occasionally on that from the brochs of the north-east of Scotland and the fort on Traprain Law. Although generally the patterns from these places are less elaborate, some of the designs would not be out of place on Skara Brae pottery. The applied circular rings or amulets appearing on ware from that site are seen on fragments from the Foshigarra earth-houses and from Port-nan-Long, both in North Uist, and the applied ladder-like designs, and the round projecting bosses, on vessels from the Broch of Lingrow, Orkney. The incised spiral design on one of the Skara Brae shards has never been recorded on any Scottish Stone or Bronze Age pottery, and although it may not have been met with on our Iron Age pottery either, the motive is well known on the carved stone balls of the latter period. It has to be noted, nevertheless, that not a few incised spirals occur on Bronze Age rock sculpturings in different parts of the country.

Having discussed the relics found at Skara Brae, it is necessary to consider the structures. In such Stone Age chambered cairns as the Maeshowe and the one on the Kewing Hill, Orkney possesses two of the finest prehistoric buildings in the British Isles. The fine work seen there would not have been possible but for a plentiful supply of stones—Old Red Sandstone slabs—which split with peculiar straight fractures, often at practically right angles to each other. Thus there was nothing to hinder the Stone Age people of the Orkneys erecting as well-built habitations as those at Skara Brae. But there is no evidence that they built such structures, and none resembling them, either of the Stone

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. vii. p. 49, fig. 19, No. 2.

Age or Bronze Age, has been recognised in any other part of Scotland.

The Skara Brae earth-houses are peculiar chiefly for the varied stone fittings seen in most of the chambers; some of these, the so-called dressers, do not seem to have been reported from other parts. The rooms at Skara Brae are approximately square or rectangular, usually with slightly curved walls and rounded corners. Chambers bearing a resemblance to them are to be seen in some of the outbuildings of the brochs and in the earth-houses at Stenabreck and Howmae, North Ronaldsay, Orkney.<sup>1</sup> In the last there is also a chamber with internal walls set radially to support the roof, a feature seen in the outworks of some of the brochs, especially the Broch of Yarlishof, and very common in the earth-houses of South Uist and North Uist in the Outer Hebrides. Eight of the chambers at Skara Brae had a hearth placed near the centre of the floor. A similar feature has been found in brochs, such as the Broch of Dun Troddan, Glenelg, Inverness-shire, in several of the chambers in the Foshigarry earth-houses, and in other similar buildings in North Uist. All these earth-houses had radial walls. The broch and every one of the earth-houses furnished evidence to show that the central space over the fireplaces had not been roofed. No doubt the reason why so many bone shovels were found at Skara Brae was because of its liability to be inundated by drifting sand falling through the open space in the roof above the hearths, which required to be shovelled out frequently.

Another Skara Brae feature which is seen in many brochs, and in the earth-houses at Foshigarry and Bac Mhic Connain, in North Uist, is the box-like structures formed of slabs set on edge in the floor. In one of the outbuildings at the Broch of Westness, Rousay, which is at present being excavated by Mr Grant, is a structure resembling the so-called beds at Skara Brae. A distance of only eleven miles separates the sites.

Finally, in the walls of the passages at Skara Brae there were quite a number of bar-holes to receive the wooden spar which kept the door—probably a stone slab—in position when shut. Such bar-holes are so common in brochs that one expects to find them in clearing the entrance passage.

If a broch were inserted into the centre of Skara Brae earth-houses and the various chambers grouped around it, only some of the peculiar internal fittings might call for comment.

Looking at the relics found, the chief evidence for the theory that the Skara Brae inhabitants were in a Stone Age state of culture though

<sup>1</sup> *Proc. Soc. Ant. Scot.*, vol. xix, p. 14.

living in the Iron Age is the undoubted presence of a very crude chert and flint industry, which, however, is utterly unlike that of the Orkney Stone Age, as witnessed by a comprehensive collection of flint and chert implements from a farm only six miles distant; the number of stone axes discovered; and the finding of a deer-horn socket for a stone axe and of hoes of bone, which resemble certain French and Danish objects of deer-horn which belong to the Stone Age of these countries, but are a good many centuries older than the Skara Brae period of occupation, which is believed to be the Iron Age.

The arguments for an Iron Age culture are the occurrence of carved stone balls, generally admitted to belong to that time, and of special types of beads and perforated pointed tools of bone, that seem to have been fashioned by instruments of metal, and the discovery of pieces of burnished hematite, stone pot-lids, small, thin blades of bone, large and small vessels made from hollowed stones and vertebræ of whales, the worked dorsal plate of a whale, and the oval stone object encircled by a groove, all types of objects which have been recorded either from brochs, earth-houses, crannogs, or forts, and many from at least two of these kinds of structures, all of which belong to the Iron Age.

The absence of weaving combs and whorls, typical broch and earth-house relics, may be explained by the attention of the Skara Brae population being directed more to the curing of pelts than to the spinning and weaving of fabrics for clothing.

As for the absence of querns and the deduction therefrom that this people were not agriculturists and did not grow grain, we know that grain was produced in Scotland both in the Stone and Bronze Ages, and there is no obvious reason why this knowledge should not be taken to Orkney, if not in the Stone Age by people who could build such a splendid monument as the Maeshowe, then in the Bronze Age by the men who could erect the imposing Ring of Brodgar. It is inconceivable that the builders of the Bronze Age structures, at least, did not know something about agriculture. If this be granted, we can hardly believe that a people living at a later time, in the same neighbourhood, did not know about the cultivation of cereals. I think, however, that the large stone with the hollow on the top which was found at Skara Brae is, in spite of its size, a saddle quern.

The pottery is in a class by itself, but while it shows no affinity to the pottery of the Orkney Stone Age, some of the designs on it can be matched in Scottish Iron Age pottery.

In the same way many analogous features of the Skara Brae buildings are to be seen in both brochs and earth-houses, though not in any Stone Age structure in Scotland.

The absence of objects of iron at Skara Brae does not necessarily mean that this metal was not known to its inhabitants. As a matter of fact, all the iron tools and implements in the extensive collections of relics in the National Museum, discovered in brochs in Sutherland, Caithness, Orkney, and Shetland, can be counted on the fingers of both hands. The same phenomenon is to be noted in the earth-houses of the Hebrides and Orkney. Practically all the direct evidence we have that the people of the brochs and earth-houses made use of iron is the remains of a few knives and the rivets in their hair-combs, while slag has been found in the earth-houses at Foshigarry and Bac Mhic Connain. It has been said that the culture of the brochs and earth-houses was a stone-and-bone culture. This may be granted up to a certain extent, as their inhabitants were making use of materials that a Stone Age people would have utilised, but it does not follow that their culture was that of the Stone Age. Apart from the discovery of such distinctly Early Iron Age (Late-Celtic) relics as the bronze tweezers in the Broch of Kettleburn and the bronze spear-butt in the Broch of Harray, the small crucibles of Iron Age types from the brochs of Dun Beag, Skye, and Cinn Trolla, Sutherland, and the earth-houses at Foshigarry and Bac Mhic Connain, together with the clay moulds for brooches from the latter site and for an early type of pin from the Broch of Lingrow, show that the occupants of these buildings were perfectly familiar with the casting of metals. The broken whetstone from Skara Brae, it may be remarked, is of a form frequently found on Iron Age sites in Scotland.

No doubt the reason why no small tools of iron were discovered at Skara Brae, and so few at other sites, is the peculiar situation of so many of the brochs and earth-houses. A favourite position is on or near the sea-shore, so that the buildings would frequently be drenched with salt spray throughout the ages. Salt water is very much worse than rain for the destruction of iron, and so objects made of it, embedded in porous soil, often in sand, which allowed the water to drain off quickly, would very rapidly disintegrate into masses of rust.

The evidence of the relics and the buildings, although they display certain novel features, seems to prove that the Skara Brae people were in close touch with the inhabitants of the brochs and earth-houses, and consequently were of the same culture, that of the Iron Age. As for the date of the buildings, it appears to be very near that of the brochs. It may be rather earlier, but there has been no evidence produced to indicate that it is later.