NOTES ON THE CONTENTS OF TWO VIKING GRAVES IN ISLAY, DISCOVERED BY WILLIAM CAMPBELL, ESQ., OF BALLINABY; WITH NOTICES OF THE BURIAL CUSTOMS OF THE NORSE SEAKINGS, AS RECORDED IN THE SAGAS AND ILLUSTRATED BY THEIR GRAVE-MOUNDS IN NORWAY AND IN SCOTLAND. BY JOSEPH ANDERSON, ASSISTANT SECRETARY, AND KEEPER OF THE MUSEUM.

The contents of the two graves now to be described were discovered by William Campbell, Esq., of Ballinaby, in the sandy links at Ballinaby, in the island of Islay, in August 1878. I heard of the discovery in September through Dr Hunter; and recognising it from his description as a deposit of the heathen Viking time, I wrote to Mr Campbell requesting him to entrust the articles to me for description—a request with which he courteously complied by bringing them to Edinburgh and ultimately presenting them to the Museum. Mr Campbell states that the discovery was made in consequence of the drifting of the sand showing a deposit of rust on the surface; and on digging to the depth of about 15 inches he found two skeletons a little apart with their heads towards the east. A line of stones on edge formed a sort of enclosure round each of the skeletons. The other contents of the graves were as follows:—

GRAVE No. I.

- 1. An iron sword in its sheath.
- 2. Iron boss of a shield, with its handle attached.
- 3. Small scabbard end, or mounting of the point of a quiver.
- 4. Iron spear-head and the ferrile of its shaft.

- 5. Two axe-heads of iron.
- 6. Pair of iron pincers or forge-tongs.
- 7. Iron head of a small adze.
- 8. Iron head of a smith's hammer.
- 9. The bow-handle of a large iron pot and portions of sheet-iron which may have been parts of the pot.
- 10. Portions of bands formed of iron wires laid side by side which may have been parts of a helmet of the Viking form.

Grave No. II.

- 1. Pair of tortoise or bowl-shaped brooches, ornamented with bands of plaited silver wire, and studs (most probably of coloured glass) now gone.
 - 2. The brass spring-pins of the two brooches.
- 3. Portions of three double discs of thin bronze or copper, plated with silver, connected in pairs by a band about an inch wide, and ornamented with circles of bosses and borders of *repoussé* work.
- 4. Silver hair-pin with globular head ornamented with filigree work, and furnished with a ring of wire fastened by a peculiar twisting of one end round the other.
- 5. Silver chain of fine wire, knitted as a hollow tube, in a manner somewhat similar to what is called Trichinopoly work.
 - 6. Ladle of thin beaten bronze, $17\frac{1}{2}$ inches in length.
- 7. Hemispherical lump of black glass, in shape resembling the end of a bottle, and having the convex side rubbed and striated by use.
 - 8. Small beads of coloured glass.
- 9. Large beads of coloured glass, enamelled on the surface with patterns in different colours.

It is evident from the nature of the two groups of objects thus associated with the two skeletons, that No. I. was the grave of a man, and No. II. that of a woman.

It becomes also apparent on further examination that the time and character of these burials are capable of being defined with a precision

and certainty very rarely attainable with undated burials in Scotland. For instance, on a general comparison of these two groups of objects with other groups of objects obtained from early graves in this country, it is seen that no similar groups were ever obtained from graves of Celtic origin. But a similar comparison shows that such groups of objects are the constant accompaniments of burials of the heathen Viking time in Norway, and that there is nothing in either of these two groups, although found in Scotland, which might not have been found in Norway. Still further examination of the records of sepulchral deposits shows that when these groups of relies do occur in Scotland they always have been found in districts that were occupied or frequented by the Vikings.² A closer examination still will reveal the fact that the forms of the objects, such as the sword, the shield-boss, the scabbard-point, &c., belong exclusively to the last period of paganism in Norway or the heathen Viking time—a period which ranges from about the beginning of the eighth to the close of the tenth century.

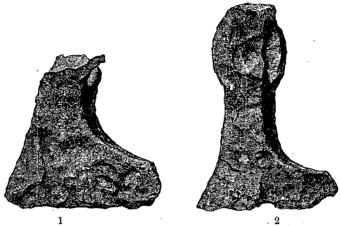
It may be convenient for the detailed description of the objects to consider them under the three divisions of implements, weapons, and ornaments.

The implements form the most remarkable group of the three. Those found in the man's grave are the two axe-heads (figs. 1 and 2), which are both weapons and tools; a pair of forge-tongs of iron (fig. 3) 12 inches in length; the iron head of an adze (fig. 4) 5 inches long; an iron hammer head (fig. 5) $4\frac{1}{2}$ inches long and $1\frac{1}{2}$ inch wide; the bow-handle of a large iron pot (fig. 6), 12 inches in length, broken, but showing the loop at one end; and the broken fragments of the pot itself. We are familiar in this country with implements of stone or bronze in early graves, and their occurrence in connection with heathen burial does not surprise us. But when we find in a grave such a group of implements

¹ See Nicolaysen's "Norske Fornlevninger," passim, and also the "Foreningen for Norske Mindesmaerker's Bevaring," Aarböger, 1866-77.

² See "Notes on the Relics of the Viking Period of the Northmen in Scotland," illustrated by specimens in the Museum.—*Proceedings*, vol. x. pp. 536-94.

as this—a group of actual tools of iron—scarcely differing in shape and not differing in material from those now in use in our workshops, we instantly



Figs. 1 and 2. Axe-heads of Iron (1).

realise the presence of a phenomenon at once unusual 1 and suggestive—enabling us vividly to realise how closely the characteristic customs of primeval man may be linked with the arts and culture of modern times.



Fig. 3. Forge-Tongs $(\frac{1}{3})$.

Although it seems a strange thing to us that a man should be supposed to have need of his smithy tools in the other world, this feeling was quite

¹ It is unusual in this country, because the graves of our forefathers at that period were the graves of Christians who buried their dead in consecrated ground, with the rites of the Church, and consequently without these accompaniments of pagan burial.

in accordance with the faith that foretold the need of weapons.¹ As the Viking who was laid in the sand-hills of Islay took with him his sword and spear, his axe and shield, so he necessarily required his smithy tools to keep them in repair. This is not a singular case. Nicolaysen gives 23





Figs. 4 and 5. Adze and Hammer $(\frac{1}{2})$.

instances of smithy hammers, and 17 of forge-tongs from the grave-mounds of the Viking time, described by him in Norway. Several of these contained a more or less complete set of smith's tools, including anvils, chisels, files, and wire-drawing implements, as well as hammers and tongs. A

¹ The Asa faith promised a place in Odin's great hall (Valhalla) to all men wounded by arms or slain in battle. Spears supported its ceiling, it was roofed with shields, and coats of mail adorned its benches. It was the perpetual pastime of its inmates to fight and slay each other every day, to be revived again before evening, and to ride home in joyful company to Valhalla, there to be refreshed with the boar's feast, and the mead served by the Valkyriar. Not only was the Viking of the heathen time supposed to take with him to Valhalla all that was buried with him, but whatever he had hid in the earth during his lifetime. It is probably to this belief rather than to the mere notion of temporary concealment for safety that we owe such hoards as those of Skaill. For a full description of the Asa faith see Keyser's "Religion of the Northmen," 1854, p. 93 et seq.

grave-mound at Thiele in Jutland ¹ contained two anvils of different forms, four different kinds of hammers, four varieties of pincers or forge-tongs, two chisels, and two implements for drawing wire, four files, two melting pans, a pair of scales and weights, and a quantity of other implements.

The smith's craft of course held a high place in the estimation of a people wholly devoted to the use of arms, and many of their most famous men were considered as famous for their skill in forging, tempering, and ornamenting weapons as for their prowess in using them.² It is signifi-



Fig. 6. Bow Handle of Iron Pot, one end broken (1).

cant of the high estimation in which the craft was held, that the word "smith" was used not only as the common term for expressing dexterity in handicraft, but also as the term by which expression was most fitly given to the higher forms of creative art. Thus while the armourer was literally the weapon-smith, the rune-carver was figuratively the rune-smith, the saga-man the word-smith, the poet the lay-smith, and the Creator of all things the world-smith.

Passing now to the consideration of the group of weapons, it is to be noticed that the sword (fig. 7) is of a very peculiar form, long, broad-

¹ Aarböger for Nordisk Oldkyndighed og Historie.

² That this fame was not undeserved may be readily inferred from an examination of the splendid sword-hilt exhibited by Professor Macpherson ("Proceedings," vol. xii. pl. xxx.), which though found in the island of Eigg was undoubtedly the work of one of the most cunning of Scandinavian sword-smiths. Four centuries before this time the smith was highly esteemed in Celtic lands for his superior skill, if not also feared for his supernatural powers. St Patrick's famous hymn contains an exorcism against "the craft of idolatry, the spells of women and smiths, and all knowledge that hath defiled the soul of man."

bladed, double-edged, and having a triangular pommel and straight guard, slightly convex on both sides. It measures $36\frac{1}{2}$ inches in length; the blade is $2\frac{3}{4}$ inches wide at the hilt, tapering to $2\frac{1}{2}$ inches in the middle and $1\frac{1}{2}$ inch at the point. The pommel, which is triangular and convex

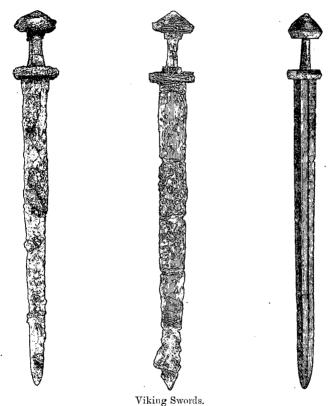


Fig. 7. Found in Islay. Fig. 8 Found in Orkney. Fig. 9. Found in Norway. in outline, is $2\frac{1}{2}$ inches high, 4 inches wide, and $1\frac{1}{2}$ inch thick. The grip, which is covered with leather, is $3\frac{3}{4}$ inches in length. The guard is $4\frac{1}{4}$ inches wide. This particular form of sword belongs to Scandinavia alone, and in Scandinavia it was limited to the last three centuries

of the heathen period. It occurs in almost every grave-mound of this period in Norway (fig. 8), and in such places as the Orkneys (fig. 9), the Hebrides, and those parts of Ireland, Iceland, and Russia¹ known to have been colonised by the Northmen at that period. It is precisely the form shown on the two bronze plaques (figs. 10 and 11) found in a cairn on the island of Oland, which bear the only con temporary representations I know of the sword and spear of the Viking





Figs. 10 and 11. Bronze Plaques from Oland (actual size).

time.² Although they are evidently grotesques, they represent the helmet, sword, and spear in a realistic manner, which may be accepted as giving the general form of the objects at least. That they do so pretty fairly is evident from comparison with the actual weapons. I show on another diagram four swords—(1) Norwegian, dug up in Norway; (2) Norwegian, from a Viking grave in Ireland; (3) Danish, from a

¹ See "Notes on the Relics of the Viking Period," in the "Proceedings," vol. x. p. 536; Worsaae's "Danes and Northmen in England," pp. 45, 326; "Crania Britannica," vol. ii. pl. lvi.; Wakeman's "Handbook of Irish Antiquities," p. 167; and Kruse's "Necro Livonica," plates 5, 7, 40, for instances of this.

² Kongl. Vitterhets Manadsblad, Stockholm, 1874, and Montelius "Om Lifvet i Sverige under Hednatiden," p. 86.

grave-mound in Denmark; (4) Swedish, from a grave-mound in Sweden. Their absolute identity of character with the swords now on the table (figs. 7 and 8) from Viking graves in Islay and the Orkneys could not be more strikingly illustrated.

As we possess no Scottish sword of this period, I have placed on another diagram the enlarged figures of three swords which seem to give the form and character of the native weapon. The first of these is of the second century of the Christian era. It is enlarged from a rubbing of the weapon lying by the side of the fallen Caledonians, over whose prostrate bodies the Roman rides in triumph on the left-hand panel of the Legionary Tablet in the Museum. The second is from the sarcophagus of much later date from the churchyard of Govan. It is the sword of the horseman in the central compartment of the sarcophagus, and is thus in the scabbard; but its striking resemblance to the sword on the Roman stone, and the resemblance of its hilt to that on the stone at Inchbrayock, seem to establish at least the fact that the hilt of the Celtic sword was unlike that of the Scandinavian sword throughout the whole period between the second century of the Christian era and the close of the tenth century. The third example on the diagram is the only representation of a Scottish sword that can be definitely referred to the same period as these Norse swords. It is an enlarged figure of the sword placed in the hand of St Matthew by the Celtic scribe who drew the illuminations to the Book of Deer in the ninth century. Like the Norse sword, it is a long-bladed and round-pointed weapon, but its grip is much longer than the width of the hand, and the points of the guard and cross-piece are prolonged in recurved knobs.

The Viking sword was often over 36 inches in length, and the fact that a whetstone usually accompanies it in the grave-mound indicates that care was taken to keep its edge keen. Looking at the size of the blade and the form of the hilt, so admirably adapted to secure firmness of grip and balance in the poise of the weapon, we can well believe that there

¹ The Book of Deer, edited by John Stuart, LL.D., Spalding Club, 1869, plate vi.

may be truth in some of the many remarkable feats of swordsmanship of which we read in the sagas.¹

The spear from this Islay grave (fig. 12) is of a form common in Norwegian grave-mounds, long, wide-bladed, and strong in the socket.



Fig. 12. Spear-head of Iron (1).

The socket is $4\frac{1}{2}$ inches in length, the blade 2 inches wide at the widest part. The whole length of the spear-head is now only $11\frac{1}{2}$ inches, but about 3 inches of its length is wanting. I have figured along with it what



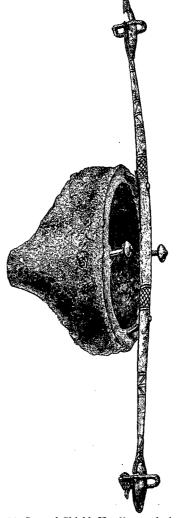
appears to have been the ferrule of its shaft (fig. 13). The spear was a favourite weapon of the Vikings, but the form was neither so constant nor so peculiar as that of the sword. Spears occur in the grave-mounds almost as frequently as swords. Nicolaysen records over 200 instances

¹ We can thus the more readily sympathise with the pathetic complaint of the Irish annalist, that "though there were an hundred heads on one neck, and an hundred tongues in each head, and an hundred voices in each tongue, they would fail to tell what the Gael had suffered of injury and oppression from these heathen foreigners; and though numerous were the oft-victorious claus of the many familied Eirinn, though numerous their kings and their champions, yet none was able to give deliverance from the cruelty and wrath of the brutal, ferocious, furious, untamed, implacable hordes, because of the excellence of their polished, heavy, glittering corslets, and their hard, strong, valiant swords, and their well-rivetted long spears, and because of the greatness of their achievements and their deeds, their bravery and valour, their strength and ferocity, and the excess of their thirst and their hunger for the brave, fruitful, nobly-inhabited, full of cateracts, rivers, and bays, pure, smooth-plained, sweet, grassy land of Eirinn.—"War of the Gaedhil with the Gael," Master of the Rolls' Edition, p. 53.

of the sword and over 180 of the spear in the grave-mounds of the Viking time which he has described.

The axes (figs. 1 and 2) are of common Viking forms. Both are broken, but the largest is 6 inches in length, and 4½ inches across the face of the axe. Axes were used by the Vikings both as tools and weapons. Perhaps the most common Viking form is that exemplified in the specimen now on the table from Lamaness, Sanday, Orkney. One exactly like it, with the handle still in it, was found in a grave-mound at Lyngdal, and is figured in the Norwegian Society's "Annual" for 1871.

The shield boss (fig. 14) is a most interesting relic, because it shows what has never before been seen in this country, the mode of attachment of the boss and handle through the wood of the shield. The boss is of iron, conical, and flat on the top. It measures 3\frac{3}{4} inches in diameter at the base, and $3\frac{1}{2}$ inches high, the flattened top being about half an inch in diameter. The handle is of bronze, is $7\frac{1}{4}$ inches long, terminating at either end in ornamental circular expansions. It is ornamented with engraved lines, forming a reticulated pattern (see fig. 15).



It has been fastened to the rim of Fig. 14. Boss of Shield, Handle attached.

the boss by two pins of bronze on either side, and it was further secured to the wood of the shield by loops at either end. The form of the shield described in the sagas was round. Although Nicolay-



Fig. 15. Handle of Shield (front view).

sen records upwards of 80 shields found in the Viking graves which he describes, in Norway, notices of the handle are extremely rare, and neither the form of the shield nor of the handle seems to have been accurately made out from the actual specimens. It would appear, however, that in all cases at that time the handle was central, and consequently that the shield was not worn on the arm, but held at arm's length in the hand.

The scabbard end, or mounting of the end of a quiver, I know not



Fig. 16. (?) Scabbard End $(\frac{1}{2})$.



Fig. 17. Sheath Mounting.



Fig. 18. Fragment of Helmet.

which (fig. 16), is not an unusual accompaniment of Viking burials. It is broken, but measures $3\frac{1}{4}$ inches in length and $1\frac{1}{4}$ inch in diameter at the wider end. Another mounting of the end of a sheath (fig. 17) is of

bronze silvered and neatly ornamented. It measures $1\frac{3}{4}$ inches in length and $\frac{1}{2}$ an inch in diameter. There is one already in the Museum from one of the graves on the links of Pierowall, in Westray, Orkney, and several occurred in the graves of the Northmen of the Viking time at Islandbridge, near Dublin.

The fragments of the helmet (fig. 18), if I am right in calling them so, are more unusual, and this is the only instance of their occurrence on this side the North Sea. The Viking helmet was of peculiar form and construction, being often merely a cap of interlaced bands of iron or of wires, interwoven and covered with leather. Frequently they were adorned with fantastic crests, as seen in the representations on the Swedish plaques of bronze (figs. 10 and 11).

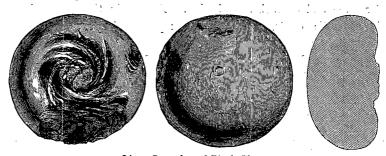
I now proceed to describe the objects found in the woman's grave.

The most curious of these is the lump of black glass, in shape somewhat resembling the bottom of an ordinary black bottle, but flatter in its concavity (fig. 19), and rounder on the convex side (fig. 20), which bears traces of rubbing all over it, as if by continuous use. It is 3 inches in diameter, and $1\frac{1}{2}$ inch thick. No other specimen of this implement has ever occurred on this side of the North Sea, but it is far from uncommon in Norway. Nicolaysen, describing one found in a gravemound, says it is a lump of green glass formed like the bottom of a bottle, and was probably used for smoothing linen, as is still the custom in some districts of Norway. Another is described in the Norwegian Society's

¹ Foreningen til Norske Mindesmaerker's Bevaring, Aarsberetning for 1868, p. 94, No. 85. Another, found in a grave-mound 44½ feet long and 13 feet broad, set round the base with large stones, was associated with the following objects: A bronze vessel 8 inches high and 17 in greatest diameter, over which was inverted a pot of steatite, and within them both a quantity of implements of iron rusted into a mass of burnt human bones. These implements were—a knife-blade, 5½ inches long; a large ring, 4 inches diameter, apparently of a bridle-bit; an axe and a sickle-blade, the lump of glass before mentioned, a whetstone, portions of melted bronze ornaments, and an ox-horn. Alongside the bronze vessel were a spear-head and a frying-pan of iron, 8½ inches diameter, with 7 inches of the handle remaining, and all around were a quantity of clinker-nails.—"Foreningen til Norske Mindesmaerker's Bevaring," Aarsberetning for 1871, p. 141.

"Annual" 1 for 1873, as found in a grave-mound in Mandals Amt, where the women still use similar implements for giving a gloss to their white caps. M. Lorange notices half a dozen in the catalogue of the Bergen collection, and states that this form of implement is still used in some districts on the west coast of Norway for smoothing linen.²

I find no notice of the occurrence of this implement in Denmark, and but for an accidental circumstance which occurred since this paper was written, I should not have known of its occurrence in any other locality. When showing the relics from the Ballinaby graves to Mr J. H. Chalmers



Linen Smoother of Black Glass.

Fig. 19. Back view. Fig. 20. Front view.

Fig. 21. Section.

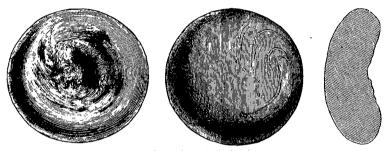
of Aberdeen, a Fellow of the Society, Miss Henderson of Stemster, in Caithness, who was also present, remarked that an implement similar to this had been used long ago in their house for a similar purpose, viz., the smoothing or glazing of linen, and that she believed the implement was still in existence. She was afterwards good enough to cause search to be made for it, and it is now engraved (figs. 22, 23, 24), along with the ancient Norse specimen. It is 3 inches in diameter, and $1\frac{3}{4}$ inch thick.

The bronze ladle (fig. 25) is unusual, and seems not to be of Norwegian manufacture—at least, I cannot find any record of a similar object in a Viking grave. Bronze vessels are not rare, but this particular variety with

¹ Foren. til Norske Mindes. Bev., Aarsberetning for 1873, p. 55, No. 28.

² Samlingen af Norske Oldsager i Bergens Museum. Af A. Lorange, p. 138, No. 2203.

the long handle seems to be uncommon. Its whole length is $17\frac{1}{2}$ inches. The handle is 12 inches long, and the bowl is $5\frac{1}{2}$ inches wide and $3\frac{1}{2}$ inches deep. It is formed of beaten bronze, not much thicker than writing paper. To give strength to the handle the edges are hammered into a T-shaped fillet, and the circular expansion at the end, which



Linen Smoother of Black Glass.

Fig. 22. Back view. Fig. 2

Fig. 23. Front view. Fig. 24. Section.

is always perforated in Roman vessels, is filled with a disc hammered up from the under side. It is the only specimen of the kind found on Scottish soil, so far as I know. We have in the Museum one almost exactly similar, but shorter in the handle, from Ireland, and there



Fig. 25. Ladle of thin Bronze.

are one or two in the collection of the Irish Academy at Dublin. But they have not been found in sufficient numbers to enable us to say definitely that they are Irish. A curious hoard of bowls and colanders of a similar style of manufacture found in Sutherlandshire is shown on the photograph now exhibited.

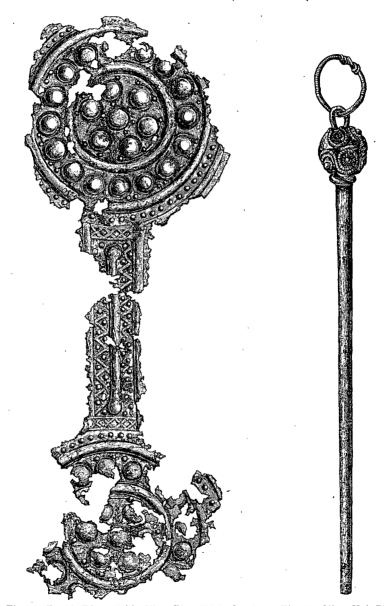


Fig. 26. Double Discs of thin Silver Plate (7 $\frac{1}{2}$ in. long). Fig. 27. Silver Hair-Pin.

The only other implement in this grave is a small cylinder of bronze, plated with silver, which I have provisionally described as a needle-case. It is 2 inches in length, and under $\frac{1}{4}$ inch in diameter. A fragment of the point end of what seems to have been a bronze needle still adheres by oxidation to the interior surface of the cylinder. Awls and needles of bronze are not unusual in Norse graves of this period, but I have not met with any record of a needle-case.

Among the ornaments in this grave, the most remarkable are the three double discs of thin silver-plated bronze with circular rows of raised bosses. One of these is shown in fig. 26. They are so thin and wasted that it is difficult to ascertain how they had been used. It seems probable they were attached to the dress, as discs not unlike them were worn in pairs

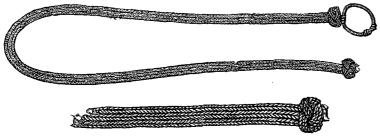


Fig. 28. Chain of Knitted Silver Wire, and portion of the Chain of the actual size.

on the breast in the early Iron Age. I have searched in vain, however, among the records of the Viking graves for anything exactly like them.

Not less remarkable is the silver hair-pin, with globular head and open loop attached, which is shown full size in fig 27. It measures 5 inches in length, and the head is ornamented with filigree work. Such filigree work is found in Merovingian graves in France, in Anglo-Saxon graves in England, and in the ecclesiastical art of this country and of Ireland.

The chain of knitted silver wire (fig. 28) also found in this grave is not peculiar to Scandinavia. We have it in the Croy find, along with beads of the same kind as those found in this grave (fig. 29), and with a coin of Coenwulf, King of Mercia, in the end of the eighth century. It

occurred also in the magnificent hoard of silver ornaments of the Viking time found at Skaill in Orkney, in a similar hoard found at Cuerdale in England, and also in a smaller hoard found in the isle of Inchkenneth.



Fig 29. Beads found in grave No. 2 at Ballinaby (actual size).

The tortoise brooches, however, of which there is a splendid pair among the objects in this grave, are the characteristic ornaments of the time.



Fig. 30. Oval Bowl-shaped Brooch found in the grave No. 2 at Ballinaby, Islay.

One of them is here engraved (fig. 30). They are $4\frac{3}{4}$ inches in length, 3 inches in width, and $1\frac{1}{2}$ inches high. The spring-pins (fig. 31) of these



Fig. 31. Brass Spring-Pin of Brooch.

two brooches still remain. They are the only ones I have seen, and their preservation is due to the fact that they are of brass. All the pins

of all the specimens in the Museum have been of iron and have disappeared by oxidation. These Islay Brooches have a peculiar interest, as showing the method in which they were ornamented with bands of twisted silver wires, and studs most probably of coloured pastes, which last are unfortunately all gone, although the pins that fastened them still remain.

In a previous paper, in which I have described all the specimens of tortoise brooches known in Scotland up to that date, I have referred to the important fact that the later Iron Age is characterised by the use of an alloy which may be termed a zinc-bronze, in contradistinction to the bronze of the Bronze Age, which is a tin-bronze. Professor Rygh has given the details of the analyses of four tortoise brooches, and the composition of the metal is as follows²:—

Analyses of Tortoise Brooches.		Copper.	Zinc.	Lead.
1. From Stromsund, Norway,		74.78	10.44	14.36
2. From Braak, Norway, .		72.85	11.90	15.71
3. From Gardness, Norway,		88.00	11.90	•••
4. From Denmark,		84.44	11.00	3.77

The geographical distribution of these brooches³ marks the range of the Scandinavian conquests of the ninth and tenth centuries. In Iceland, in Russian Livonia, in Normandy, in England, in Ireland, and on our own shores in Shetland, Orkney, Caithness, and Sutherland, and in the

¹ Notes on the Relics of the Viking Period.—Proceedings, vol. x. pp. 549-62.

² Norske Broncelegeringer fra Jernalderen af O. Rygh, p. 6.

³ In a letter to me acknowledging receipt of a copy of my "Notes of the Relics of the Viking Period of the Northmen in Scotland," Professor Rygh, Curator of the Museum at Christiania, says: "Among the oval brooches which you have figured, there is not one that might not have been found in Norway. The brooch from Pierowall is of a form exceedingly common with us, of which I know no fewer than 108 specimens. The commonest form of all in Norway is that of the brooches from Islay and Tiree, of which we have 118 examples. The brooches from the Longhills at Wick belong to a variety of the last form well known with us, and that from Castletown in Caithness has many analogous examples here in Norway, although they are not so common as the two previously mentioned types." Figures of these brooches are given in the Proceedings, vol. x. pp. 560.

Hebrides, including even the remote St Kilda, their presence attests the historical fact of the Viking settlements from Norway. But the area in which they are specially abundant of course is in Scandinavia itself. I find on comparing the different records that there are now upwards of 500 of them known in Norway. When we add the number known in Sweden, which exceeds 400, and those of Denmark, which only amount to 38, we have a gross total of nearly a thousand, of which the larger portion are from Norway. No archæological period in any country is marked by such a distinctly peculiar and characteristic class of objects.

It is beyond my power as well as beyond the scope of the present inquiry to deal with the questions of the origin, development, and decadence of the singularly effective but intensely peculiar style of art which they exhibit. It is evidently a continuation of the zoomorphic style of decoration which prevailed so widely in the early Iron Age, and of which there was a peculiar phase of development in Scandinavia. But whence it came, what its relations were to the contemporary art of Southern Europe, and what were the successive stages of its development, are questions which no one has yet endeavoured to answer. vastness and richness of the field of research in this direction is doubtless one of the reasons why so few of its peculiar problems have yet been worked out. But it is also unfortunately too true that the Scandinavian archaeologists have systematically cultivated the study of the earlier periods to the comparative neglect of the richest period of their Iron Age. This, however, is now being rectified, as the interest that was formerly attached exclusively to the merely mysterious is being more generally transferred to the purely scientific.

Before leaving this branch of the subject, I may remark that the island of Islay¹ has yielded a larger number of burials of the Norse Viking time than any other district of Scotland, the island of Westray

⁵ Islay is the II of the Sagas, and a large proportion of its place-names, are of Norwegian origin. Among these may be instanced such names as Stromness, Lyrabols, Scarabols, Nerabols, Cullaboll, Nerby, Conisby, Elister, Skeba, Olista, Laxay, Aros, Cracobus, Cornibus, &c.

in Orkney alone excepted. We have already in the Museum a pair of tortoise brooches from Ballinaby. They were found not far from the site of these two graves, under a large standing stone—the *bauta-stein* of the Norse grave-mound—and presented in May 1788 by Colin Campbell,



Fig. 32. Brooch found at Ballinaby, Islay, in 1788.

Esq., of Ballinaby, a worthy predecessor of the Ballinaby to whom we owe the presentation of these interesting relics to-night. One of them is shown in fig. 32. In 1845 a similar deposit was found in the strath near Newton distillery. The grave was in a gravel bank on the side of the strath. In it were two oval, bowl-shaped, or tortoise brooches and an



Fig. 33. Brooch found in a grave near Newton, Islay.

amber bead. The brooches are of the single shell type, like the one in the Museum from Pierowall, and the interior bore the mark of cloth, as all these brooches do. The pins as usual were of iron, and the external ornamentation (as will be seen in the woodcut fig. 33) closely resembled that of the Orkney ones. The shell of the brooch is pierced for

eight study at the intersection of the panel borders. There is no ornamentation of silver wires as in the Ballinaby specimens, but the borders are filled by a simple fret inlaid in silver or other white metal. centre of the brooch is occupied by a rounded stud, and the centres of the two lozenge-shaped panels on the top are also occupied by lozenge-shaped studs, executed in the casting. The chased ornamentation is very rudely executed, and the precise form of the designs difficult to be made out, though they are of the usual character. The length of each of the brooches is $4\frac{1}{8}$ inches, width $2\frac{3}{4}$ inches, height 1 inch. I heard of them incidentally from Lady Jane Dundas, who visited the Museum to see the Ballinaby relics; and I owe the details to the courtesy of John F. Campbell, Esq. of Islay, who has kindly sent the brooches for exhibition. He also adds the further information that "similar brooches, one or more, were found in Mull, and were lately in the possession of Lord Northampton at Torloisk, where I saw the things in August 1877." addition of these three pairs of brooches to the Scottish list brings up the total of tortoise brooches found in Scotland to 32.

I pass now to the general question of the burial customs of the Norse sea-kings. The testimony of the earlier sagas is unanimous that the common mode of sepulture in the heathen Viking time was by raising a mound over the remains of the dead, who were placed in their grave-mounds honourably with great store of goods, weapons, and ornaments, and costly garments, horses, and sometimes even thralls, or slaves. Thus we are told that great store of goods was placed in the how with Hravnkel Freysgode, and all his war-suits and his good spear; while, on the other

¹ The raising of the haug, how, or grave-mound, was regarded as an important duty. Gisli went out with all his folk to lay Vestein "in the sandhill which looks down on the tarn below Saebol," and Thorgrim and his folk joined them on the way.

—"Saga of Gisli the Outlaw," Dasent's translation, p. 41.

² It is recorded in the "Landnamabók" that a thrall was buried in the how with Asmund Atleson.—"Landnamabók," Copenhagen, 1843, cap. 81.

³ Sagan af Hrafnkeli Freysgode, Copenhagen, 1847; Aarböger for Nordisk Oldkyndighed og Historie, 1870, p. 369.

hand, it is recorded of Hoskuld, that they made a great how over him but there was little property placed in it. The full significance of this practical reflection on Hoskuld's memory may be found in the exhortation of Ketil Raums to his son Thorstein. When urging him to take to the Viking, he reminded him that from of old it had been the custom of great men to go on warfare, and get for themselves goods and gear, and that the goods so gotten and the gear so gathered were not subject to heirship, because they were destined to be laid in the how with the warrior who won them. 1 So also we are told that Skalagrim was laid in his how with his horse, his weapons, and his smithy-tools,2 and Egill was buried with his weapons and his clothing. Thorgrim, priest of Frey at Saebol, was buried in his ship, over which they raised the how after the ancient fashion,3 and Gisli took a great stone from the river-bed and dashed it down on the ship, so that the timbers creaked again, saying as he did so: "I know nothing of making a ship fast if any weather stirs this one." Sometimes the dead man was placed sitting in his how. "They cast a mound over Gunnar and made him sit upright in it;" and it is added that his mother would not hear of his favourite weapon being buried with him, because she reserved it for the avenger of his death; but afterwards his son Hogni said he would take it to his father that he might have it with him in Valhalla, and bear his favourite weapon in the meeting of Perhaps the most striking of all the saga notices of warriors there.4 heathen burial is that of the burial of King Harald Hildetand, who was slain on Braavalla Heath by his nephew Sigurd Ring in the middle of the eighth century. After the battle, the victor caused search to be made for the body of his uncle, which he placed in his own chariot in the midst of the grave-mound; then his horse was slain and laid beside the dead; and Sigurd caused his own saddle to be placed beside the horse, so that Harald might have his choice, and ride or drive to Valhalla as he had

¹ Vatnsdaela Saga, Leipsig, 1860, cap. 2.

² Egils Saga, Reikavik, 1856, caps. 89-61.

³ Gisli Saga, Dasent's translation, p. 55.

⁴ Njal Saga, Dasent's translation, vol. i. pp. 249-252.

a mind. Then Sigurd made a great funeral feast, and the nobles threw massive rings and splendid arms into the tumulus in honour of King Harald. So also we are told that when Hakon the Good defeated the sons of Gunnhild, he caused their ships to be drawn up on the strand, the slain to be laid in them, and great mounds of earth raised over them.

Thus we gather from the early literature of the Scandinavians a very vivid impression of the character and accompaniments of their heathen burial. Yet this literary evidence is characteristically defective on those special points of detail that are of such paramount interest to the Hence when it is attempted to be used scientifically, the result is what might be expected of a scientific operation conducted with For instance, Dr Dasent gathering the literary unscientific materials. evidence into one generalisation, says that the burial took place in a how or cairn, and the body was laid in the how with goods and arms, sometimes in a sitting posture, sometimes even in a ship, but always in a chamber, formed of baulks of timber or blocks of stone, over which earth and gravel were piled. Now as it is the main object of our science to attain to great and wide generalisations from completed evidence, it is manifest that such a generalisation as this, which gives us what always was the special character of the sepulchral structure for a given period, would be one of the most precious and costly fruits of scientific research. Founded on purely archæological evidence, it could only be the result of the completed investigation of all the grave-mounds of the period. here given, it is of course arrived at by a much shorter process, viz, the comparison and critical interpretation of a few texts, for it is not expressly stated in any text, but is an inference from incidental expressions in several of them. 1 And the interest with which we as archæologists must

¹ Sometimes the description of a burial mentions the digging of a grave instead of the raising of a mound. When Thorolf died, Egil took his body and prepared it according to the custom of the time, then they dug a grave and placed Thorolf in it with all his weapons and raiment, and Egil placed a gold bracelet on each of his arms, then they placed stones over him, and earth over all.

regard the inference, lies in the fact that this special form of sepulchral mound, which is deduced from the literary evidence as having been always the form in use throughout the Viking period, is a form which is archæologically unknown in that period. No chambered mound of the Viking time is yet known in Norway, and the records of about 1000 Viking grave-mounds which have been examined in that country give only two that were furnished with cists, all the others being both uncisted and unchambered. But it is to be observed that the express statements of the sagas are all borne out by the archæological evidence. It is only when a general inference is drawn as to the universal prevalence of a constructive custom that there is any conflict between the literary and the archæological results.

It is also to be observed that the saga evidence is defective as to the customs connected with cremation, and the only literary evidence we possess in regard to them is to be found in that strange narrative by an eye-witness which I translated in the ninth volume of the Proceedings. The scene is on the banks of the Volga, and the date is towards the close of the Viking time. The narrator tells us that there was a temporary interment till all the preparations were made; that a female slave who had elected to die with her master was given in charge to an old hag, who as mistress of the ceremonies was significantly styled "the death angel;" that the dead man's ship was hauled up on the strand and prepared to be his funeral pile; that when all was ready the corpse was taken out of its temporary grave, arrayed in fur-mounted and gold embroidered garments, and laid in state on the deck where a banquet was spread for him; that his weapons were placed ready to his hand, and two horses, two men, his

¹ Snorri says that the custom of burning the body was over before the time when the historical sagas begin their chronicle of events. The fact that it is represented in the mythological sagas as the burial rite of the Æsir, in the Twilight of the Gods, shows that it was out of memory as a human custom in Iceland at least. There are proofs, however, that the custom of burning the dead was not wholly extinct in Europe, even in the twelfth and thirteenth centuries. (See the "Narrative by an Eye-Witness of the Ceremonies attending the Cremation of a Norse Chief on the Banks of the Volga."—Proceedings, vol. ix. p. 518, and also vol. xi. p. 370.)

dog, and two fowls were hewn in pieces with swords and cast into the ship; that the woman who was to die, after taking leave of her friends, was first drugged with strong drink and then brutally slaughtered with a big knife by the death angel, while two men pulled the ends of a cord wound round her neck and the crowd beat upon their shields to drown her shrieks; that she was then laid beside her dead lord and the pile fired by his nearest relative, and after it had burnt out a great mound was raised over the ashes.¹

Turning now to the evidence derived from the grave-mounds themselves, we find that it corroborates and supplements the literary evidence in a remarkable manner.

For instance, close above the strand at Moklebust in Norway there is a semiglobular mound, 12 feet high and 92 feet in diameter, round its base there is a ditch 12 feet wide and 3 feet deep. On the south and east the ditch is interrupted by accesses on the natural level of the ground—a feature similar to that presented by many of our stone circles. The whole base of the mound when explored was found covered by a layer of ashes. In an oval about 28 feet long and 14 feet wide lay a quantity of iron rivets and nails as they had settled down among the ashes when the planks they had fastened were consumed. Around the circumference of this oval, and among these rivets, were found no fewer than 42 shield bosses, mingled with pike-heads, axes, swords, knives, and other implements of iron. Near its centre lay a large bronze caldron one-third full of burnt human bones, over which were heaped the bosses of thirteen shields now

¹ It may be interesting to add here two notices of Tartar burials in the thirteenth and fourteenth centuries. Johannes de Plano Carpini, a missionary who visited Tartary in the years 1246 and 1247, and afterwards wrote a "Historia Mongolorum," states that the better sort among them were buried in their tents, sitting at a table furnished with flesh and milk, and that there was buried with the dead man, an ox, and a fowl, and a horse bridled and saddled, and that another horse was killed and caten for the funeral feast, and its bones burned. He also states that they buried much gold and silver with their dead. Jordan Severacus, who travelled in Tartary in 1330, states that when their great men die they are buried with a horse, and that one or two of their favourite servants are buried alive with them.—Holmboe, "Stormaends Begravelse blandt Skandinaver i Hedenold," p. 8.

firmly rusted to each other and to the sides of the pot. The pot itself was splendidly enamelled—in fact an exquisite work of art. Among the bones within it was a pike head which M. Lorange, who explored the mound, concluded to have been the weapon by which the Viking met his death. Recounting the whole circumstances of the burial as observed in the process of exploration, he says,—it seems that the sea-king's men had drawn his ship up on the strand, with all its fittings as it was on the day of his death, laid the dead man in it clad in his best and with his arms and his horse; then they hung their shields round the gunwales as they used to do when going on a cruise, hoisted the sail, piled wood under and around, and fired the vessel as she stood; lastly, they gathered the burnt bones into this splendid pot, covered them with the bosses of burnt shields, and placed them in the centre of the heap of ashes over which the great mound was finally reared.¹

More frequently the vessel and its contents have not passed through the fire. One such ship I have seen. It was found under a mound at Tune, and is now preserved in an outbuilding attached to the museum at Christiania. The mound was about 12 feet high and 80 yards in circum-The vessel stood on the original surface, on even keel. clinker built, the planks of oak, the ribs of fir. The keel is 43½ feet in length and the ship was low and narrow for her length, which is that of a first-class herring boat of the present day. Each side was of eleven planks, an inch thick, fastened with clinker-nails, having round heads outside and square heads on the inside. The seams were caulked with tarred oakum of neats' hair. The ribs, thirteen in number, are built of three different layers of wood fastened with oaken trenails and iron nails. The mode in which they are fastened to the skin of the boat is peculiar. The upper boards alone are fastened with oaken

¹ Samlingen af Norske Oldsager i Bergen's Museum. Af A. Lorange, pp. 153-57. A similar case of a burnt ship occurred at Lackalanga in Sweden.—"Annaler for Nordisk Oldkyndighed," 1858, p. 177. The sea-king Hake of Hordaland, who fell in the fight at Tyrisvold, was placed in his ship, which was filled with fallen warriors and their weapons; the sails were then set, the rudder lashed, and the wind being off the land, the vessel was fired and went flaming out to sea.

trenails, and the lower ones are merely attached to the planking by ropes of bast passed through holes in the ribs and then through corresponding holes in wooden clamps on the planks on each side. had a mast of fir secured in a step on the bottom lining, and she was steered by a side rudder like the galleys in the Bayeux tapestry. Viking's body, which was unburnt, was placed on a wooden platform abaft the mast. Beside it lay the bones of a horse with remains of the saddle. Some beads of coloured glass, some fragments of clothing, a sword of the common Viking type, a spear-head, a shield boss, a rolled up coat of mail, and a number of iron implements lay near it. At the side of the ship, and thus apart from the saddled horse which lay by the man's side, were the bones of other two horses, one of which was a young animal. singular fact of the burial of a saddled horse beside the man, and a mare and her foal in another part of the ship, was repeated in the ship grave-This mound was oval in shape and 122 feet in length. The man's bones lay on the starboard side, and close by him those of a saddled horse, while the bones of a mare and her foal were found in a standing position at the larboard side.

But it is needless to multiply instances, yet it may be interesting to remark that similar ship-burials of Norse Vikings have occurred in three instances on our own shores, and that the relics from them have been for many years in our own Museum, although their distinctive character has been hitherto unrecognised. I had referred to them as Viking burials in my previous paper, but I did not then perceive the significance of certain facts which leave no doubt that in all three cases the man had been buried in his ship, and in two out of the three his horse was buried In one case we have the bones of the horse, and in the other with him. one of the cheek rings of the bridle. This, though large, is of the usual size of the Viking bridle ring, which sometimes was as much as 4 inches All three burials were accompanied by quantities of iron rivets, which are square-headed on the one side and round-headed on the other; and this is the special characteristic of the clinker-nails of the Viking ships buried in the grave-mounds of Norway.

The first of these ship-burials was found by Mr George Petrie in a sand hill at Gill, in Westray, in 1841. The relics from it were deposited in the Kirkwall Museum. They were purchased by Col. Balfour when that museum was broken up, and sent here. They are described in the Donation List for January 1863 as the bronze cheek ring of a bridle, with part of the iron bit, and fragments of a shield, found with the skeletons of a man and horse in a grave on the sand of Gill. called fragments of a shield are pieces of wood with iron rivets through It never occurred to me to doubt their being fragments of a shield until recently, when going over the remains of all the Viking shields in the Museum, I came to these and saw that the rivets are squareheaded on one side and round-headed on the other. This, as I have said, is the characteristic of the clinker-nails of the Viking ships buried in Norwegian grave-mounds, and of course when it is remembered that there is no instance of a shield with iron rivets, when we also notice that the rivets pass obliquely through the wood, and that the thickness of the wood between the rivet heads is fully twice that of any shield whose thickness is known, there can be no further hesitation in ascribing these rivets to the remains of a clinker built boat or ship, which had been hauled up on the strand at Westray, and the man placed in it with his horse ready saddled and bridled so that he might take his choice and ride or sail to Valhalla. The other instances are also from Westray. A mound which was also a sand hill, situated in the bay of Pierowall, on the opposite side of the island, was explored by Mr Farrer in 1855.2 The articles found in it were presented to the Museum, and with our present knowledge we have no difficulty in recognising in the fragments of wood and iron supposed to be portions of a shield or buckler, the clinker-nails of another Viking ship, with square heads on one end and round heads on the other. The third instance is also from the bay of Pierowall, Westray. The mound was explored by Mr Farrer and Mr George Petrie in July 1863, and the articles found were presented to the

¹ Proceedings, vol. v. p. 16.

² Proceedings, vol. ii. p. 158.

Museum in April 1864.¹ They consisted of several portions of a human skeleton, and of the skeleton of a horse; two iron buckles, one 3 inches broad and probably the buckle of the saddle girth, the other smaller; and a number of pieces of oak with iron clinker-nails or rivets, having square heads on one end and round heads on the other.

Returning for a moment to the literary evidence, it is also interesting to remark that as heathenism was dying out, and its practices gradually giving way before the enlightening influences of Christianity, the cairn of stones which from the earliest times had been accounted the honourable mode of sepulture came to be associated exclusively with the idea of dishonourable burial. Thus we find it referred to as the natural sequel of the stoning of witches and warlocks,2 and as the method adopted for the effectual entombment of those who would not otherwise lie quiet in their graves. So also the burning of the body, which had of old been the honourable and customary mode, was reserved for wretches like Thorolf Baegifot, who, because he would not lie in his grave, but wandered in the night time killing some and frightening others out of their senses, was taken up and burnt, and his ashes strewed abroad on the deep sea. Women were especially suspected of this walking after death, and it was probably to this feeling that the strange circumstances of the burial in the Haraldskjaer Moss were due. I refer to it on account of the incidental bearing of some of its relics on the probable age and character of a very remarkable relic now in the Museum.

In 1835 some labourers digging peats on the Moss of Haraldskjaer in Jutland found the body of a woman embedded in the peat. It was stretched on its back and pegged down in the moss by hooked branches driven in so as to fasten down the legs and arms at the knees and elbows, and further secured against a change of position by other branches placed across the breast and abdomen and staked down at the ends. Some frag-

¹ Proceedings, vol. v. p. 300.

² So we are told in the "Laxdaela Saga' that the wizard and witch, Kotkel and Grima, were stoned to death, and over them was erected a cairn of stones, of which the remains are to be seen at this day. Their son Stigand, who fled at the time, was afterwards taken and also stoned and cairned.

ments of the dress were preserved, and among them is one of a peculiar style of woollen fabric (fig. 34), having a fringe of knotted cords of the

same material. Its close resemblance in texture and in the style of its fringe to the remarkable hood found in Orkney (fig. 37) suggests that the hood belongs probably to the period of the Scandinavian occupation of these islands.

This hood, which was found in a moss in St Andrews parish, in the Mainland of Orkney, was long in the possession of the late Mr George Petrie, of Kirkwall, and was acquired for this Museum after his

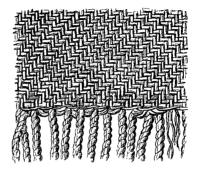
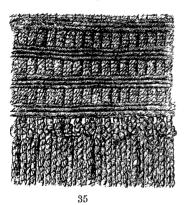
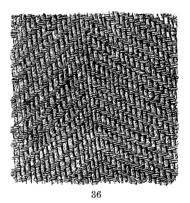


Fig. 34. Woollen Fabric from the Moss of Haraldskjaer, Jutland.

death, along with his general collection. It measures 32 inches in length and 17 inches in greatest width. The border round the base of the hood,





Figs. 35 and 36. Part of the Border and Fringe at the base of the Hood, and of the Upper part of the Hood, showing the twilled Bands (actual size).

to which the fringes are attached, is 3 inches in width. Part of the border, with the fringes, is shown in fig. 35. The fringes are two-ply cords,

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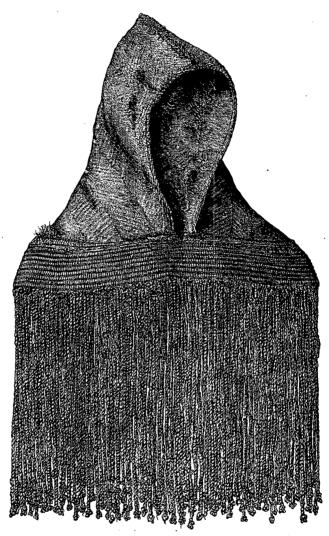


Fig. 37. Hood found in a Moss in St Andrew's Parish, Orkney.

knotted at the ends, and they are fastened to the band at the base of the hood by a knot of peculiar construction. The upper part of the hood is of a peculiar twilled fabric, worked in alternating bands, somewhat as represented in fig. 36, although the woodcut scarcely shows the true difference between the bands. No similar piece of dress is known to have been recovered from any of the mosses of Scotland.

This occupation of the northern and western parts of Scotland by the Northmen forms an episode in the history of our country, only second in importance to the earlier occupation of its southern districts by the Romans, and far surpassing it in the interest of its historical annuls. Of its interest and importance in an archeological point of view you can judge for yourselves from the number and variety of the relics which I have placed on the table for the purpose of exhibiting in one view the whole series of objects now in the Museum of the Viking period. Rich as the collection is, I trust that it is merely a forecast of what may be yet recovered, as the true significance and archeological value of these bits of rusty old iron becomes more generally known and more intelligently appreciated.

The transition from pagan to Christian burial customs in Iceland was sudden, and is curiously illustrated by one or two incidental notices in the sagas. Thus, when Auda the wealthy, a daughter of Ketil Flatnef, who had been baptised in Ireland, died in Iceland, she had ordered that she should be buried in the strand between the ebbing and flowing of the tide, because being a Christian she could not lie in unconsecrated ground, and there was yet no consecrated ground in Iceland. "Laxdaela Saga," however, says that she was buried in a ship and a how raised over her, and that great store of goods was buried with her, Bjorn, her brother, who died after the introduction of Christianity, was laid in a how at Borgarlek, because he was the only one of Ketil's children who died unbaptised. But it was only for a short time and for obstinate heathens that the old custom was retained. When Thorkel Torgilsson was baptised with all the Vatnsdalers he built a church and gave grave-ground to all his Thingmen. Sometimes the bones of heathen

relatives were taken up from their hows and brought to the churchyard, as when Tordis caused Egil's bones to be dug up and brought to the church which her husband Grim had built at Mossfell. It is to the transition period that the eccentricities of burial sometimes recorded are mostly due. When Hrapp was about to die he ordered that they should bury him in a grave in the doorway of his house, so that he might see all that went on in it. Tungeodd ordered that when he was dead they should bear him up to the top of Skaneyar fell, from which he would see over the whole country. Thorkel, grandson of Lyulf, the first Landnamsman, when in his death throes, caused himself to be borne out into the sunshine, and commended himself to the God that made the sun.

It would have been easy to lengthen this paper, but enough has been said to show that the characteristics of the heathen Viking's burial were peculiar to his race and to his time. We cannot compare them with contemporary burials of Celtic origin in Scotland, because there were none At the time when these Vikings were thus depositing their dead, after their heathen manner, around our coasts, Christianity had been as long in Scotland as the distance of time which now separates us from the period of the Reformation. We have therefore no series of Scottish sepulchral remains corresponding to those of the later Iron Age of Scandinavia, for the reason that the people of this country, being then Christians, had long ceased to deposit such objects in their graves. have no series corresponding to that of their early Iron Age, for the reason that Scotland in that period was directly in contact with the influence of Roman civilisation and Roman art, while Scandinavia lay beyond the reach of such contact. Even in their earlier ages of Bronze and Stone, their typical forms and styles of decorative art have no affinities which would enable us to predicate those of Scandinavia from the study of those in Britain, or contrariwise. The great lesson taught by comparative study of the antiquities of these two areas of Western Europe seems to be, that just in proportion as our knowledge of them becomes more precise and comprehensive, we shall the more clearly perceive the nature and extent of their differences as generic groups; and

the more clearly we perceive this the nearer we shall be to the discovery of the laws that regulate the geographical distribution of typical forms among the implements of pre-historic man.

APPENDIX.

In consideration of the archæological interest attached to every authentic record of the occurrence of these Viking burials on Scottish soil, I have judged it advisable to print the following notes, taken at the time of the exploration of a remarkable group of interments of this period by Mr William Rendall, at Pierowall, in the island of Westray, Orkney. The notes are contained in a letter addressed to Captain F. W. L. Thomas, R.N., from whom I have received them; and they are now printed exactly as they stand in Mr Rendall's manuscript.

"PIEROWALL, WESTRAY, 18th Oct. 1849.

"DEAR SIR,

- "I have made out a hurried copy of the notes I took when digging at the burying-ground at the north of Pierowall. If I had been able to have shown the various articles found, the notes might have been of service; but unfortunately nearly all the specimens have been given away, so that only the notes remain.
- "Notes taken at Graves found near the Sea-shore on a line running north and south.
- "No. 1. The grave had been previously disturbed. Found so much of skeleton as to show that the body was lying north and south, rather inclining to the right side, with the face toward the sea. Only half of the skull was found, and, from its appearance, may have been cleft before being buried. Found a small iron hatchet lying before the body; also several small pieces of iron were found round the grave, plainly showing that there had been armour 1 attached to the person buried. Half of a helmet was also found.

¹ The appearances observed produced this impression on Mr Rendall's mind; but it is impossible to say what these small pieces of iron may have been. Armour of plate did not come into use for some centuries after the heathen Viking time. The helmets of that period which are known are made of straps like hoop iron, but the "half of the helmet" mentioned may have been part of a globular boss of a shield.

- "No. 2. Found a grave containing part of a human skeleton, with that of a horse. The horse was laid on its belly, with its head towards the sea, and directed northeast, with its hinder part towards the south-west. The horse's head was resting on the nose, and quite entire, of rather a small size. After removing it a piece of iron was found between its jaws, plainly showing that it had been a bit, with one of the rings for the bridle. Found immediately before the horse's head part of a human skeleton lying with the feet toward the north. No head could be found. The thigh bones were crossed. Found much remains of iron rust, with a small piece of iron, either a spear-head or small sword. A buckle was found on the right side; also a piece of bone, which had been attached to metal. Part of the skeleton of a dog was also found in the grave.
- "No. 3. Found a grave containing part of a human skeleton, with a small dagger lying beside it. The position could not be ascertained. Part of the skeleton of a horse was also in the grave, with remains of bits of iron.
- "No. 4. Found a skeleton a considerable way towards the north, lying on its right side, with the knees drawn up toward the abdomen. No remains of armour were found.
- "Graves found round a Mound of Sand and Small Stones, at a considerable distance from the Sea, in a line running north-west from the former Sites of Graves.
- "No. 1. Found on the southmost site of the mound a large male skeleton, nearly entire, lying north and south, having large stones set round it in a square form. After carefully removing the sand the skeleton was lying rather on its left side, with the knees drawn up and the arms crossing over the breast. About two inches from the top of the head was found a cup-like piece of iron, evidently the part of a helmet. On the left side was found a sword measuring about four feet in length. A large sharpening stone was found in the grave, with a comb and several glass beads. Bits of iron and wood, attached probably to the remains of a shield, were also found.
- "No. 2. Found on the north side of the mound a small skeleton lying north and south, having two hollow copper ornaments on the breast, with a circular piece and pin a little lower down, right over the region of the stomach. Supposed to be of a female. No remains of iron or rust was found near it.
- "No. 3. Found on the north side of the mound, between a row of small stones, a small skeleton, with two hollow ornaments and a small pin, as the former. No

¹ It seems from this expression that Mr Rendall uses the term "armour" as including both arms and a mour.

² There is no necessity for supposing this a cist. Cists are almost unknown in Norwegian graves of the Viking time, but the setting of stones in the form of an enclosure round the grave is common.

³ More probably the boss of the shield, which may have been placed on the shoulder as it was carried by the Vikings on the march.

⁴ Glass beads are often found in the graves of men in Norway.

⁵ These were undoubtedly the characteristic tortoise brooches of the Viking time.

remains of iron were found. Two long combs, with ornamental carving on each side, were found, [one] above each shoulder. The teeth of the combs were fastened between two plates of bone riveted together with copper nails. Supposed to be a female

- "No. 4. Found part of a skeleton on the north side of the mound, but had been previously disturbed.
- "No. 5. Found part of a small skeleton on the north-east side of the mound, with ornaments, pin, and combs as formerly described, and evidently a female.
- "The head of No. 1 was lying toward the north, and the heads of Nos. 2, 3, 4, and 5 toward the south.

" Believe me to be, DEAR SIR,

"Yours very truly,

" Сарт. Тномаз."

" WILLIAM RENDALL."

In my paper on the "Relics of the Viking Period" I gave an abstract of the contents of four of these graves, from the published accounts of them, which I find, on comparing it with Mr Rendall's original notes, is in several particulars inaccurate.

Two years after the date of these notes Mr Rendail presented to the Museum the relics found in "one of a remarkable group of graves at Pierowall," which is not described in the notes given above, and of which no record is now known to exist. The articles are described in the minutes of the Society's meeting in June 1851 as:



Fig. 38. Oval Bowl-shaped Brooch found in a Viking grave in Westray.

"A bronze oval brooch, ring-brooch, and various iron relics, including a hatchet, spear-head, and portion of the umbo of a shield—all found in one of a remarkable group of graves on the links of Pierowall, Westray, Orkney; also a male human skull from the same grave."

I figured the shield-boss and the tortoise brooch (fig. 38) in my previous paper,

¹ Catalogue of the Bateman Museum, p. 169; Archwological Association's Journal, vol. ii. p. 329; Wilson's Prehistoric Annals of Scotland, vol. ii. p. 305.

but the identity of the ring-brooch had been lost, and was only discovered by the accidental finding of a small piece of tracing-paper among some miscellaneous memoranda in the Society's library. The tracing-paper bore a rough drawing of the ring-brooch and skull, and a pencil jotting, sufficient for the identification of the brooch as one of those in the Museum (fig. 39), to which no locality was attached. It is interesting, as being a brooch of Celtic type, and the only thing of distinctively Celtic character found in those graves. Such Celtic ornaments are occasionally found in Viking grave-mounds on the west coast of Norway, as might be expected from the frequent intercourse between the colonies in Scotland and Ireland and the mother country during the Viking time.

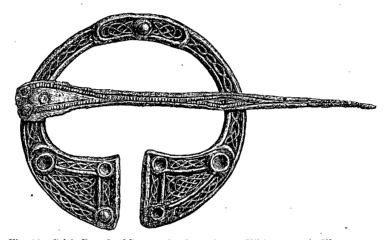


Fig. 39. Celtic Brooch of Penannular form, from a Viking grave in Westray.

I am also indebted to Mr Jón A. Hjaltalin, Advocates' Library, for the following summary of remarks made by him at this meeting on the subject of the results of recent researches in Iceland, supplying evidence of the burial customs of the closing period of paganism among the Norwegian colonists of that island:—

"Since 1850 a number of ancient burial mounds have been examined in Iceland containing remains which appear to belong to a period prior to the introduction of Christianity into the island in A.D. 1000.

"1. Baldursheimur.—A grave-mound at Baldursheimur, in the north of Iceland, was excavated in 1860. The mound lies east and west. The skeleton lay at full length, with its head to the east and feet to the west, the arms extended by the sides. On the right side were an iron spear, twenty-four table-men of bone, and one of a set of oblong dice. On the left side an iron sword, a small bone with a hole in one end,

and a broken bead of glass. The sword had evidently been encased in a wooden scabbard. Near the feet of this interment were the remains of a young horse, and the bit of a bridle.

- "2. Gautlönd.—At Gautlönd, in the north of the island, some workmen digging the foundations of a barn came upon the skeleton of a man about 3 feet under the surface of a small hillock. The skeleton appeared to have been interred in a sitting posture, and the bones of a dog were found under its knees. No other relics were found except a small iron knife.
- "3. Hafurbyarnarstadir.—Seven graves were discovered in a sand-drift here in 1868. The first and largest was 14 feet long and 4 feet broad. It lay east and west, and contained two skeletons, placed in the west end of the grave, with their heads laid to the west. One of the skeletons was that of a full-grown man, the other that of a youth. At their feet were the bones of a dog, and in the east end of the grave the skeleton of a horse. On the right of the man was an iron sword mounted with silver, the ferule being of bronze and gilt. Above the sword lay an iron axe-head, a bridle-bit, and the buckle of a saddle-girth. In the grave were also found the fragments of an iron helmet and of an iron pot, a whetstone with a hole in one end, a comb of bone, and a number of rusty nails, and fragments of decayed wood.
- "In the second grave, which lay from south-west to north-east, there were found the bones of a man and a dog (those of the dog being at the feet of the man), and a spear-head of iron.
- "The third grave was 8 feet long and 4 feet broad. In it were found the bones of a man, along with those of a dog (as before), and an iron spear-head. In this case the skull lay between the thighs of the skeleton.
- "In the fourth grave were found portions of a human skeleton and the bones of a horse.
- "In the others fragments of human bones were found, but no weapons. Each of these graves was surrounded by a low wall of stones, and covered with flat slabs.
- "5. Kalfborgara.—Five graves were discovered at this place in 1869. They lay either south-west and north-east or from east to west. In one there were found, along with the skeleton, two brooches of bronze, four yellow glass beads, and a pin of bronze. In another grave an iron spear-head lay on the left side of the skeleton. The third grave was circular, and surrounded by a strong stone wall. In it were found the bones of two horses and the buckle of a saddle-girth. In the other two graves nothing was found except the human skeletons.
- "All these graves were surrounded by walls of loose stones, and covered with gravel and stones.
- "All the weapons and articles found in the different localities above mentioned are preserved in the Antiquarian Museum of Reykjavik, and are described in the report of the museum drawn up by its late keeper, Mr S. Gudmundsson."