A BRONZE AGE HOARD FROM GLEN TROOL, STEWARTRY OF KIRKCUDBRIGHT. By J. GRAHAM CALLANDER, F.S.A.Scot., DIRECTOR OF THE NATIONAL MUSEUM.

In the summer of 1915 an important hoard of Bronze Age objects (fig. 1) was discovered by Captain W. Dinwiddie, 5th King's Own Scottish Borderers, under a large overhanging rock on Eschoncan Fell,¹ north of Loch Trool, in the parish of Minnigaff. The objects found by Captain Dinwiddie consisted of a rapier blade, a spear-head, a flanged axe, a knife, two small chisels or punches, two small bars of square section, a razor, a pin, and fragments of a twisted torc, all of bronze, and a number of amber beads which doubtless had been strung as a necklace. Some time later a second razor was found by Mr Malcolm Scott, gamekeeper, Cumloden, and two beads, one of glass and the other of amber, by Mr William Adams, Wood o' Cree, Newton Stewart.

Captain Dinwiddie's attention was directed to the deposit by the appearance of what at first sight he took to be the spike of an iron railing, but which proved on closer scrutiny to be the spear-head, projecting above the mossy ground. Further examination revealed the other relics embedded in stony peaty soil, over an area 3 feet in length by 2 feet in breadth, at various depths down to 15 inches below the surface.

The rapier (fig. 1, No. 1) has an expanded spud-shaped base in which there have been two rivet holes for attaching it to the hilt, but the extreme end is imperfect, being broken across the rivet-holes. It now measures 15 inches in length, though originally it has been at least 1 inch longer; about the middle of the blade it measures $\frac{15}{16}$ inch in width. Though detached, the two rivets have been recovered, one complete in the matter of length and the other wanting about one-third of its length. The former measures $1\frac{7}{32}$ inch in length and $\frac{7}{16}$ inch in diameter. Both sides of the blade are ornamented with three slight ribs or mouldings running parallel to the edges and extending from the base to within $1\frac{3}{4}$ inch of the point, where they meet. The blade of the weapon has corroded in a peculiar fashion as the surface is covered with a bark-like encrustation which has scaled off in places, at first making the decoration rather difficult to detect. Since being treated for preservation the

¹ The spot where the relics were found lies beside the first "N" in the word Eschoncan and due north of the first "I" in the word Minnigaff, on the map in the *Inventory of Ancient Monuments in the Stewartry of Kirkcudbright*, published by the Ancient Monuments Commission (Scotland).

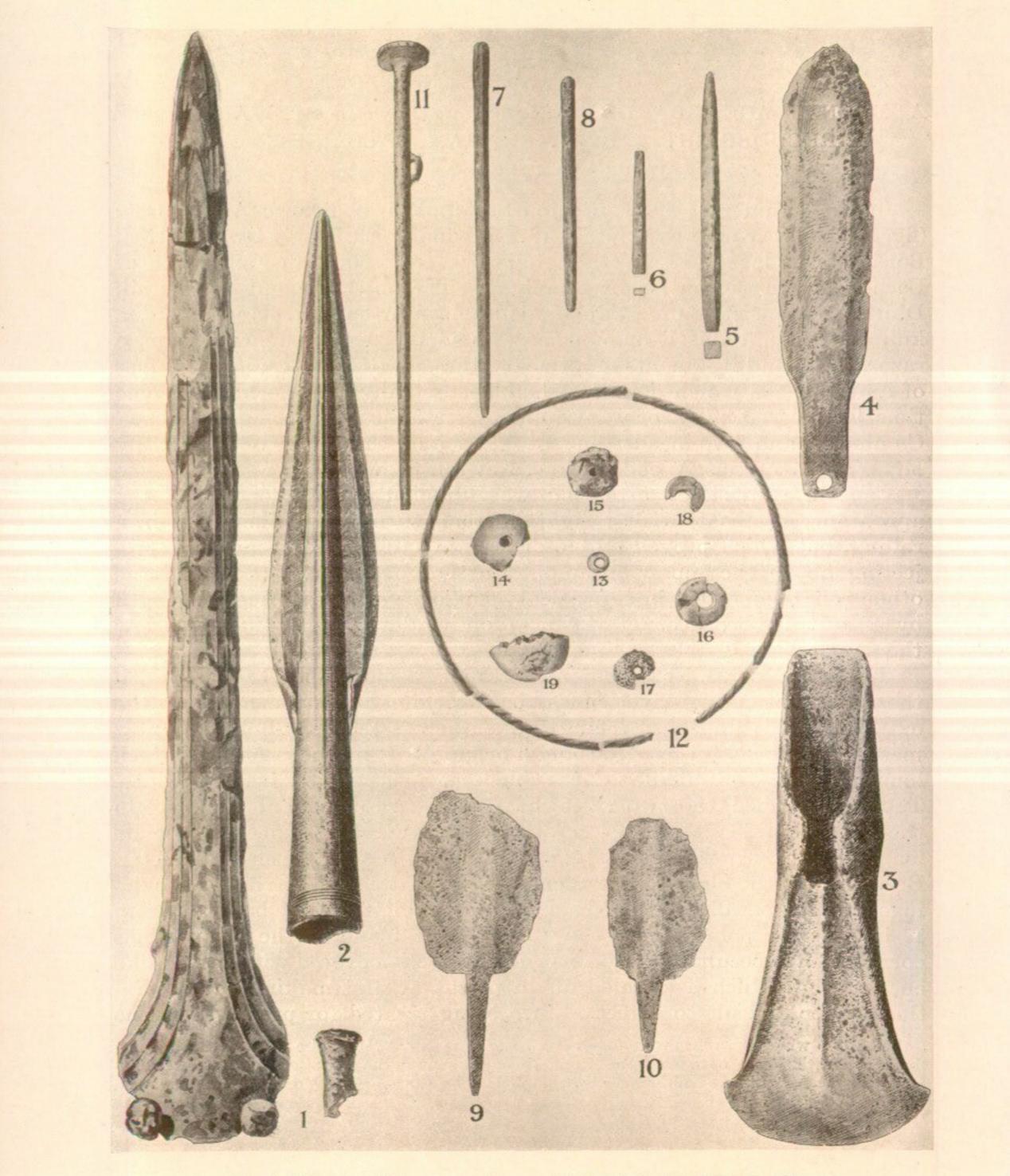


Fig. 1. Objects of Bronze, Amber, and Glass from Glen Trool. $(\frac{1}{2})$

mouldings show up much more distinctly. It may be mentioned that this form of ornamentation is seen on many Irish rapiers, though it is seldom carried so near the point of the blade. The length of the complete rivet shows that the weapon had been provided with a stout hilt probably made of wood, bone, or deer-horn.

The spear-head (fig. 1, No. 2) is of graceful form and has a long narrow blade. The socket extends nearly to the point so as to form a strong tapering mid-rib, along the centre of which, on both sides, is a slight bead or moulding. At the base of each wing of the blade is a small loop with the outer side hammered flat into lozenge form at right angles to the plane of the wings and parallel to the socket. Encircling the mouth of the socket is a narrow ornamental band of four parallel engraved lines. The spear-head measures $9\frac{7}{8}$ inches in length and $1\frac{3}{8}$ inch across the widest part of the blade, and the mouth of the socket is $\frac{1}{16}$ inch in diameter.

The axe (fig. 1, No. 3) is rather massive, and of the flanged type, but it has no loop. The flanges are broad, and the stop for preventing the axehead from being driven into the haft takes the form of a thickening of the metal in the fore part of the axe instead of a projecting stop-ridge between the wings. This specimen may thus be considered an early variety of the palstave. It is ornamented on either face by a central rib in front of the stop and by a slight bead on the margins formed by an attenuated continuation of the flanges. There is a ragged arris in the centre of the sides, made at the junction of the halves of the mould during casting and not dressed off. The axe measures $6\frac{13}{16}$ inches in length and $2\frac{3}{4}$ inches in width across the extremities of the cutting edge.

In the knife (fig. 1, No. 4) is seen a very uncommon variety of this class of instrument. It has a broad, flat blade with parallel sides, and deep cutting edges drawn out by hammering; the point is almost obtuse, and the tang is broad and flat, with a perforation near the end which is flattened. The blade measures $4\frac{11}{16}$ inches long and the tang $1\frac{1}{2}$ inch, making the total length of the knife $6\frac{3}{16}$ inches; the blade is $1\frac{9}{32}$ inch broad and $\frac{3}{16}$ inch thick, while the tang is $\frac{11}{16}$ inch broad, and the perforation in it $\frac{3}{16}$ inch in diameter.

The two small chisels, or perhaps punches, exhibit two varieties of form. The smaller (fig. 1, No. 6) is of rectangular section throughout, narrowing towards the hafting end. It is $1\frac{1}{16}$ inch long, $\frac{3}{16}$ inch broad at the cutting end, and $\frac{1}{8}$ inch thick at the centre. The other chisel (fig. 1, No. 5) is $3\frac{1}{2}$ inches in length and $\frac{7}{32}$ inch square at the centre. Towards the butt end it is rounded and tapering, but towards the point it is of rectangular section, contracting sharply at the edge to a width of $\frac{5}{32}$ inch.

The two small bars (fig. 1, Nos. 7 and 8) are $5\frac{1}{5}$ inches and $3\frac{1}{4}$ inches in length respectively. Both are approximately square in section and are

about the same thickness, $\frac{5}{32}$ inch, but while the longer tapers towards one end the other is of regular thickness. They have the appearance of unfinished objects and their purpose is not obvious.

Though the two razors have lost their edges through corrosion and decay, and do not exhibit their complete original form, there is no difficulty in determinating that they belong to a well-known type of instrument which in its most highly developed form has an oval blade, bifid at the top, with a small perforation below the notch, and a tang for fixing it to the handle. A slight notch in the centre of the top of the larger suggests the apex of the characteristic V-shaped indentation which they bear; but this is doubtful, as it is not placed exactly in the centre of the blade. No trace of this peculiarity is noticeable on the Neither of the objects has the small perforation in second example. the blade below the notch, but this feature is not always present on specimens which are complete enough to show the bifid extremity. The first (fig. 1, No. 9) measures $4\frac{1}{16}$ inches in length, the blade being $2\frac{7}{16}$ inches long, $1\frac{1}{16}$ inch broad, and $\frac{3}{32}$ inch thick at the centre; and the second (fig. 1, No. 10) is $3\frac{3}{16}$ inches in length, its blade measuring $2\frac{3}{16}$ inches long, $1\frac{11}{32}$ inch broad, and $\frac{3}{32}$ inch thick. In both the tang is of rectangular section and narrows towards a blunt point; in the first razor it is $1\frac{5}{8}$ inch long, and in the second 1 inch.

The pin (fig. 1, No. 11) is a fine massive example with a thick round stem, a circular head of flattish lenticular section, and a small loop on one side of the stem, $1\frac{3}{8}$ inch below the head, but the point is wanting. It is $6\frac{3}{8}$ inches in length, the stem $\frac{3}{16}$ inch in diameter, and the head $\frac{11}{16}$ inch in diameter and $\frac{7}{32}$ inch thick at the centre.

The remaining object of bronze is the twisted wire (fig. 1, No. 12). It is square in section measuring $\frac{5}{3^{12}}$ inch in thickness, but the twisting of the metal gives it the appearance of being spirally fluted. It is broken into thirteen pieces, of which the three largest measure from $4\frac{3}{8}$ inches to $2\frac{1}{4}$ inches in length. Their combined length is $16\frac{3}{4}$ inches, but as a fragment was lost it had been somewhat longer. As none of the curves on the larger pieces is segmental it is impossible definitely to say whether the object was a torc or an armlet. But though the ends show no signs of having been hooked, I think that the length of the wire approximates more to that of a torc than of an armlet.

It has been noted that the surface of the rapier blade has deteriorated badly; the other objects, however, are in a better state of preservation, although their surfaces are more or less pitted, and they are of a dark green colour.

The glass bead (fig. 1, No. 13), which measures $\frac{5}{16}$ inch in diameter and $\frac{3}{16}$ inch in thickness, is of flattened globular shape, not quite regular in

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contour, and its surface is slightly pitted through decay. It is translucent and of a light blue colour with a greenish tinge when viewed at certain angles.

At least ten beads of flat discoid form and two of conical shape can be counted among the amber fragments (fig. 1, Nos. 14 to 19). None is complete, as even the best preserved is chipped round part of the circumference. Five show the complete perforation and five are represented by halves. In addition there is nearly half of a large disc and a small quantity of crushed fragments. The surface of the amber is of a dull yellowish-brown colour, but the inside is of a rich ruddy tint. The beads vary from $\frac{3}{5}$ inch to $1\frac{1}{16}$ inch in diameter. Several of the pieces show a number of holes bored partly through them from the under side by some insect.

This group of relics consists of a series of weapons, tools, instruments of toilet, and ornaments which belonged to, and were used by, a single individual, and consequently is to be classified as a personal hoard in contradistinction to the stock of a merchant or founder. The discovery of different types of prehistoric objects in direct association is always important, but for several reasons this one is specially valuable. The presence of the glass bead alone would make this hoard notable, but it contains eleven different classes of relics—a larger variety than has hitherto been recorded in any personal hoard found in Scotland; it includes a rapier,¹ a knife, a torc of bronze, and a peculiar and rare type of pin—four objects which have not been found before in this country in mixed deposits of relics; and it belongs to a distinct period which is earlier than that of the great majority of Scottish hoards.

Last session, in describing the find of bronze objects from Cullerne, Morayshire,² which contained a razor, I referred to five other Scottish hoards, drawing attention to the remarkable consistency in type and period of every one of the relics contained in the six deposits. Swords were discovered in two of the finds, socketed axes in four, and spearheads with rivet holes in the socket but devoid of loops in five. These three types of objects are contemporary and are recognised as belonging to the latest phase of the Bronze Age. No relic which could be assigned to an earlier period was to be seen amongst the associated objects, although the presence of such would not have been surprising, seeing that old types must have survived and continued to be utilised after new and improved varieties were in general use. When the Glen Trool hoard is compared with these discoveries, it will be seen that it contains three different kinds of weapons and tools, also in contemporary stages of development—a rapier, a spear-head

¹ Very few rapiers have been found in Scotland, VOL. LV. ² Proceedings, vol. liv. p. 129.

with diminutive loops at the base of the blade, and an advanced type of flanged axe—which are represented in the hoards referred to by similar classes of objects in a more highly developed form. Déchelette has shown that the rapier was the precursor of the sword¹; Coffey, in tracing the evolution of the spear-head, has proved that the spear-head with small loops at the base of the wings preceded that with simple rivet holes in the socket,² and it has long been recognised that the flanged axe is earlier than the socketed variety.

We may be justified in carrying our comparisons even further. It has been seen that the razors found in this hoard have no perforation near the top of the blade, and it is even doubtful if they had a notch. In five of the seven bifid razors previously recorded from Scotland which were all found associated with socketed axes, there was a perforation; but as each of the two imperforate razors was discovered associated with two perforated examples, it is possible that they may have been survivals of an earlier type whose distinguishing feature was the absence of the perforation. If we are correct in the surmise that the two from Glen Trool never had a notch, then we may see in them a still earlier variety which belonged to the period of the rapier and early type of palstave.

Regarding the chisel-like objects, these may not be true chisels, but punches utilised in producing such decorative designs as the herringbone and other patterns seen on some flat bronze axes, which belong to the early part of the Bronze Age. This class of tool survived throughout the whole of that period, as it appears in the great hoard found in the Heathery Burn Cave, Durham,³ which belonged to the latter part of the Bronze Age.

Both the knife and the torc differ from any examples hitherto recorded from Scotland, and so far as I have been able to learn parallels are extremely rare in the British Isles.

The special peculiarities of the Glen Trool knife are the flat blade with parallel edges and rather blunt point, and the broad flat tang with a rivet hole. An example figured by Sir John Evans, from Ballyclare, Co. Antrim, Ireland,⁴ shows a considerable resemblance, but it has a slight ridge or mid-rib running along the centre of the blade, and a semi-circular point. A few other blades with broad flat tangs have been found in England and Ireland, but these have sharper points and the edges are generally more or less curved, so that the blade is more lanceolate in shape. Two specimens with a broad flat tang may be mentioned, one

⁴ Ibid., p. 212, fig. 255.

¹ Manuel d'Archéologie Préhistorique, vol. ii. p. 208.

¹ Proc. Royal Irish Academy, third series, vol. iii. p. 486.

³ Evans, Ancient Bronze Implements, p. 166, fig. 191.

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from England and the other from Ireland. The first, from Heathery Burn Cave, Durham,¹ has a slight ridge on the tang instead of a perforation, and straight sides which converge towards a rounded point; and the second, found in a peat bog near Lough Ruadh, near Tullamore,² has a lanceolate blade with a slight mid-rib in the centre like the other Irish example mentioned above, a hole in the tang, and a ferrule for attachment to the haft.

Twisted torcs are quite typical Bronze Age ornaments, but they are usually made of flat strips of gold, though a few examples fashioned from a wire of bronze have been recovered from England and Ireland. These are generally made of thicker wire than that under review. One found at West Buckland, Somerset, was found with a bracelet and a looped palstave³; and another found at Annesborough, Co. Armagh,⁴ was associated with a looped palstave, three armlets, and a harp-shaped fibula. As the fibula belongs to a very much later period than the palstave, it is difficult to account for the association. But, on the analogy of the associations of the Glen Trool and West Buckland examples, it would seem that this torc should be assigned to the period of the palstave and not to that of the harp-shaped fibula. Even although the Glen Trool torc had not been found in association with other objects which had not yet attained their highest stage of development, the simple character of the technique might have justified its being considered an early variety of its kind.

Very few pins which can be assigned to the Bronze Age have been found in Scotland. I know of only five other examples. One with a circular cup-shaped head was found in a hoard containing a sword, a spear-head, and other relics in Sleat, Skye; another with a flat circular head decorated with incised concentric lines, the stem bent at the top so as to cause the head to lie parallel to the stem, was discovered with a large number of swords in Grosvenor Crescent, Edinburgh; a third of similar type, probably found in the neighbourhood of Perth, is preserved in the museum there; a fourth, with a flat round head showing a conical projection in the centre bent over like the two previous examples, was recovered with two bronze swords and a scabbard chape at Tarves, Aberdeenshire; and a fifth, with a flat discoid head attached by the edge to the bent top of the stem, so that the head and stem lay in one plane. was included in the Clerk of Penicuik collection. The Glen Trool pin differs from all these examples, as its head, though circular, is of flat

² Proc. Roy. Soc. of Antiq. of Ireland, vol. xli. p. 21.

⁴ Proc. Roy. Irish Academy, vol. xxxii. p. 171, pl. xviii.

¹ Ancient Bronze Implements, p. 212, fig. 252.

³ Archæological Journal, vol. xxxvii. p. 107.

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double-concave section, and it is provided with a small loop attached to the stem, a contrivance doubtlessly designed to prevent the pin from being lost. A cord passed through the loop and round the point of the pin where it protruded from the fabric into which it was inserted, would assuredly keep it secure. This pin seems to be of a very rare type, but an almost identical example found in Ireland, which also wants the point, has been figured by Sir John Evans.¹

Instances of the occurrence of objects of glass or vitreous paste in association with other relics of undoubted Bronze Age date in Scotland are still few in number. Beads of blue or greenish-blue vitreous paste have been found in cinerary urns containing incinerated bones at Camalynes, Auchterless, Aberdeenshire,² at Stevenston Sands, Ayrshire,³ at Mill of Marcus, Brechin, Forfarshire,⁴ and at Balneil, Wigtownshire⁵; and there is a record of a bead of whitish glass ⁶ having been found in a cavity, from which a cinerary urn containing cremated human remains and two incense-cup urns had been removed, in a cairn which also yielded up another cinerary urn and a small bronze knife at Gilchorn, near Arbroath.⁷ In the hoard of Bronze Age implements and other objects discovered at Adabrock, Lewis, half of a bead of translucent dark blue glass was also found.

Besides these discoveries, a globular bead with three spirals of yellow enamel on its circumference is recorded as having been found along with the point of a bronze blade in a cist near the centre of a cairn at Edderton, Ross-shire⁸; in addition a cinerary urn was found in a hollow at the edge of the mound. But the bead in this case belongs to a variety which is usually assigned to the Early Iron Age. This record, however, is not quite satisfactory, as Dr Joass, who described it, was not present either when the urn was found or the cist removed. Should the association of these relics be correct, it would show that the population, who in this part of the country were apparently in the late Bronze Age state of culture and made use of cinerary urns for burials, were in touch with people very expert in the manufacture of variegated glass beads, which is contrary to all past experience.

The Glen Trool bead may be assigned to an earlier date than the specimen found at Adabrock, because the Glen Trool hoard belongs to an earlier period than the Adabrock hoard.

The presence of an ornamental pin, a torc, and beads of amber and glass amongst objects which were obviously the personal property of a

- ¹ Ancient Bronze Implements, p. 371, fig. 457.
- ³ *Ibid.*, vol. xl. p. 387.
- ⁵ *Ibid.*, vol. xlv. p. 34.
- 7 Ibid., vol. xxv. p. 456.

- ² Proceedings, vol. xl. p. 37.
- 4 Ibid., vol. xxiv. p. 471.
- ⁶ *Ibid.*, vol. l. p. 302.
- ⁸ Ibid., vol. v. pp. 301 and 312.

man, is a further indication that the wearing of ornaments was not confined to women in Scotland during the Bronze Age. Reference has been made to three other finds in which pins were associated with bronze swords. Three beads of gold, glass, and amber were found in the discovery at Adabrock, Lewis, which was also a hoard belonging to a man, and other instances of ornaments being found in similar Scottish hoards could be cited. In all likelihood these massive pins performed a somewhat similar function to the shoulder brooch of the present day, only the former may have kept in position a cloak of skin or even of woven material, while the latter is used for fixing a plaid.

The thanks of the Society are due to Captain Dinwiddie for his generous gift of such an important group of relics, and to Mr Scott and Mr Adams for completing the find by presenting the second razor and the two beads.