

# The Viking-age silver and gold hoards of Scandinavian character from Scotland

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Recent research on the Viking Age in Scotland has centred on the excavation of settlement-sites in the Northern and Western Isles, but with work on certain major sites still in progress, and with others as yet unpublished, it would be premature to attempt a new survey in this field. Indeed, before new work of synthesis is undertaken much needs to be done to complete the study of the material which is already in museums, or which is lost but known from old publications and manuscript sources. Some such work has been on Norse graves in Scotland (Thorsteinsson 1968), although there has been no general survey of this evidence since Shetelig 1945 (reprinted, with additions, in *VA* VI, 65–111).<sup>1</sup> The situation as regards Norse hoards of silver and gold objects is one of even greater neglect, except for detailed studies of their coin contents by Dolley (1966) and Stevenson (1966). Their excellent numismatic studies have led perhaps to a one-sided picture of this evidence since the coins themselves represent only a small proportion by weight of the surviving silver from Viking-age Scotland. No survey of the non-numismatic contents of the hoards has been published, although much of the material has been listed, notably by Anderson (1874, 574–86) and by Grieg in 1925 (although not published until 1940 in *VA* II, 107–42). More detailed publication has been confined to certain objects of particular importance, such as the Skaili ‘thistle-brooches’, which have from time to time been selected for individual discussion.

The appendices to this paper list the hoards and single-finds of gold and silver objects of Scandinavian character at present known from Scotland (Appendices A–C).<sup>2</sup> These hand-lists form the factual basis for a general review of the evidence in the light of a similar recent survey of the Irish material (Graham-Campbell 1976). It is a preliminary study in a field in which further advances will certainly be made at such time when the hoards are properly catalogued, and the silver analysis programme of the National Museum of Antiquities of Scotland is completed.

Thirty-one Viking-age hoards of Scandinavian character, or which contain Scandinavian elements, are discussed. Hoards which have been excluded, although most probably deposited in the 9th century, include three native (i.e. Pictish) hoards: St Ninian’s Isle, Shetland; Rogart, Sutherland; and from near Perth (Appendix B). These hoards lack the rings, ingots and/or hack-silver which characterise Scandinavian-type hoards.<sup>3</sup> Six hoards of copper *stycas* (Appendix A) have also been excluded on the grounds that they contain no precious metal. Such *stycas* were the domestic currency of the kingdom of Northumbria during the mid-9th century and were thus likely to have circulated in S Scotland, unrelated to Norse activities (Dolley 1966, 22–3). If, however, these other two categories of hoards are taken into account, the total number of coin-hoards and hoards of precious metal from Scotland, known from the 9th to 12th centuries, now stands (1976) at forty.

### *Distribution*

All but three of the thirty-one hoards listed in Appendices A and B are sufficiently well provenanced to be plotted on a distribution-map (fig 1); one of the remaining three is known to be from the Hebrides. The overall distribution is essentially northern and western and, as such, reinforces the known distribution of Norse settlement in Scotland as it has been established from the evidence of place-names<sup>4</sup> and graves.<sup>5</sup> Within this distribution there is a noticeable concentration in Orkney of five hoards which includes both of the two largest from Scotland (Skaill and Burray).

There are seven hoards which fall outside the main pattern and which therefore require some comment. The 9th-century hoard from Croy, Inverness-shire,<sup>6</sup> is strictly a native (in this case, Pictish) hoard, but it is included here because it contains both silver coins and a possible Scandinavian object in the form of a silver chain. The hoard from Talnotrie, Kirkcudbrightshire, is also most probably a native hoard, but it too contains imported silver coins, including kufic fragments.

There are two hoards from SE Scotland which are both considered to have been deposited *c* AD 1025; one from Jedburgh, Roxburghshire, and the other from Lindores, Fife. Since they both date from the reign of Cnut, it has been suggested (Dolley 1966, 15, 37, 40) that they are to be associated with Cnut's Anglo-Norwegian activities rather than with those of the Norse of N and W Scotland. There are in addition from the SE a *styca* hoard from Jedburgh (not mapped, see Appendix A) and a nebulous 10th-century coin-hoard from Cockburnspath, Berwickshire. Duncan considers that this group of hoards suggests that Jedburgh 'was an important centre of exchange on a route from Northumbria to Lothian' (1975, 464).

The final hoard from this area is in marked contrast with the others of the group, being a coinless hoard of purely Norse type from Gordon, Berwickshire. Its presence inland in SE Scotland is at first sight remarkable, although its deposition might be linked to other possible evidence for occasional Norse activity down the E coast of Scotland – for example, the various finds supposedly from Perthshire of a pair of oval brooches, a sword, and a Gotlandic brooch (*VA* VI, 238).<sup>7</sup> It is, however, suggested below that the Gordon hoard shows Hiberno-Norse connections and was most probably deposited during the first half of the 10th century. It is possible therefore that its deposition was connected with the plundering of Lowland Scotland by Ívarr and his kinsmen during the year after their expulsion from Dublin in AD 902 (Smyth 1975, 63), or with the slightly later activities of Ragnall (*ibid*, 77, 94ff).

The one remaining E coast hoard is from Tarbat, Ross-shire,<sup>8</sup> in the Dornoch Firth area which is marked out by a small group of Norse burials (*VA* II, 15–18), and by Scandinavian place-name elements (MacNeill and Nicholson 1975, maps 6, c–d), as the apparent SE limit of Norse settlement on the mainland.

### *Chronology*

The numismatic studies of Dolley (1966) and Stevenson (1966) have provided probable deposition dates for the coin-hoards. In so doing they have provided a firm chronological framework for the study of these same hoards' non-numismatic contents, which may also be extended to the coinless hoards. Their results have been plotted on fig 2 which demonstrates the chronology of the deposition of silver coin-hoards in Scotland during the 9th to 12th centuries, with that of the Irish hoards added for comparison. Twenty-one Scottish hoards are sufficiently well-dated to be included (as against sixty-nine from Ireland). The comparison between the Scottish and Irish coin-hoards presented in fig 2 brings out three points. Firstly, and most clearly, there are far fewer such hoards from Scotland than there are from Ireland. Secondly, the deposition patterns

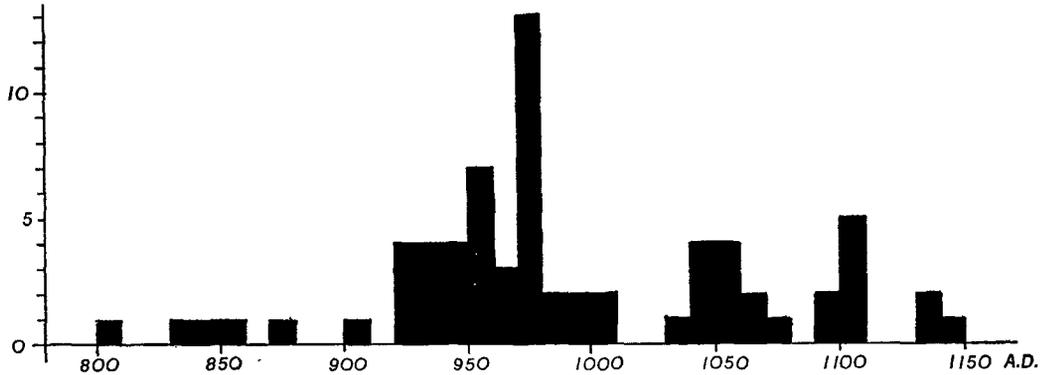


are broadly similar in that the main concentration of hoards derives from the mid-10th to early 11th centuries. Thirdly, Scotland lacks the 11th- and early 12th-century hoards which indicate the continuing prosperity of Ireland during that period.

For ease of discussion, the Scottish coin-hoards will be taken as falling into three phases. Phase I consists of the two 9th-century hoards, whilst Phase II embraces those of the 10th to mid-11th centuries. Phase III consists of the single 12th-century coin-hoard.

## IRELAND

Number of  
hoards



## SCOTLAND

Number of  
hoards

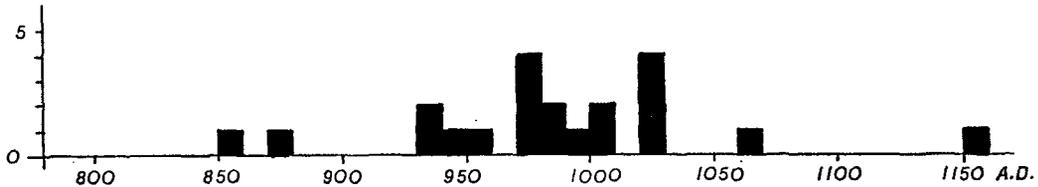


FIG 2 Deposition of silver coin-hoards of Scotland and Ireland, by decades (c 800-1170)

### *Phase I coin-hoards (9th century)*

The two Phase I coin-hoards from Scotland will not be discussed in detail in the present study since neither is of essentially Scandinavian character, although they both contain elements which seem to reflect the presence and activities of the Norse in Scotland.

The earliest coin-hoard known from Viking-age Scotland is that from Croy, Inverness-shire, which consists of two parcels recovered on different occasions (1875/76) by different finders (Ross 1886). Despite this fact, it is generally accepted that only one hoard is involved, although it is likely that it was not recovered in its entirety. Furthermore, one silver coin is known to have perished, as also perhaps one brooch. The two surviving silver coins are Anglo-Saxon pennies, both perforated for use as ornaments, identified by Blunt (in Small, Thomas and Wilson 1973, 82) as 'an early coin of Coenwulf (dated 796-805) and a coin of Æthelwulf (dated 843-8)'. All that can be said is that the hoard could not have been deposited before about AD 850.

The hoard contains the remains of three Pictish penannular brooches, a number of beads, a bronze balance-beam, and part of a silver chain. The chain is manufactured in the Trichinopoly

technique (Wilson and Blunt 1961, 93) and represents the possible Norse element in this hoard since similar chains have been found in the hoard from Cuerdale, Lancashire (Hawkins 1847, fig 84), deposited *c* AD 903, in the hoard from Skail, Orkney (*VA* II, fig 60), deposited *c* AD 950, in the 9th-century Ballinaby grave 2, Islay (*VA* II, fig 18), and in the Inchkenneth hoard, deposited *c* AD 1000; but the presence of such a chain, in the form of a scourge, in the hoard from Trehiddle, Cornwall (Wilson and Blunt 1961, 84, 92-3, pl xxvi, a), deposited *c* AD 875, raises the possibility that such chains found in insular contexts might be of Anglo-Saxon manufacture. Analysis of the Croy chain shows that it has a silver content of about 95% which is similar to that of the finest 9th-century Norse and Anglo-Saxon objects (including the Ballinaby chain), but which is considerably greater than that of the Pictish silver of the period.<sup>9</sup>

The presence of a bronze balance-beam in the Croy hoard lends weight to the suggestion that it might have been a native jeweller's hoard (Small, Thomas and Wilson 1973, 82). This may also be the explanation of the only other 9th-century coin-hoard from Scotland - from Talnotrie, Kirkcudbrightshire, deposited *c* AD 875 - which includes amongst its surviving contents a bronze ornamented lead scale-weight (Maxwell 1912, fig 1; Thompson 1956, pl xxi, c6).<sup>10</sup>

As with the Croy hoard, it is unlikely that the whole of the Talnotrie hoard was recovered, or has survived, since it was first noticed in cut peats which were being placed upon a hearth. 'A little mass of molten silver' preserved with the find may be the result of an object having been in the fire on this occasion (Maxwell 1912, 12). The finest objects are a pair of disc-headed pins and a strap-end, all of Anglo-Saxon manufacture, and a plain gold finger-ring. Other objects include three claystone spindle-whorls, a circular piece of jet or lignite (perforated), a rough agate and part of a cake of wax.<sup>11</sup> It is not a hoard of hack-silver (as defined in note 3), although described as such by Laing (1975, 202) who also argues (*ibid*, 48) that the globular pin-head of bronze (Maxwell 1912, fig 2; Thompson 1956, pl xxi, c5) is of Scandinavian type. This identification is based on the supposed parallel of the silver pin from Ballinaby grave 2, Islay (*VA* II, fig 18), of which the pin-head appears to be a re-used silver bead of well-known Scandinavian Viking-age type (cp Stenberger 1947, pl 259, 7; see also Waterman 1948, 183). It differs both in material and in design from the Talnotrie pin-head. The Talnotrie example is divided into quadrants in a manner unparalleled on Scandinavian beads and has had settings (one of which survives) at the intersections of the dividing ridges, a feature also unparalleled in Scandinavia. These factors combine to suggest an insular origin for this piece. The hoard contains twelve coins which include two cut fragments of a kufic *dirham*, and a cut fragment of a Frankish *denier*. It is these fragments which are likely to have passed through Scandinavian hands to have reached their final owner.

This small number of 9th-century silver coin-hoards from Scotland may be explained in part by the fact that neither the Norse, nor the Picts, nor the Scots had coin-using economies at that period. Such coin as may have found its way to Scotland would most likely have been melted down for conversion into ornaments. On the other hand, few of the coinless hoards and single-finds (see below) seem to have been deposited during the 9th century, suggesting that little silver was in fact in circulation.

#### *Phase II silver coin-hoards (early 10th century)*

There are three coin-hoards from Scotland which were deposited during the first half of the 10th century. That from St Helen's, Cockburnspath, Berwickshire, was concealed perhaps about AD 935, but it is a poorly documented 19th-century find. It is described as having contained 'an ancient rosary', but its material is not specified. Such an article is improbable at that date, and so it should perhaps be reinterpreted as part of a necklace. Four Anglo-Saxon coins with a

distinctive black patina, found before 1852, constitute a hoard of unknown provenance, deposited perhaps about AD 940, of which no records survive.

The earliest Norse hoard from Scotland of true Scandinavian type was found on Skye in 1891, on the beach below the Storr Rock, near Portree. This is the hoard listed under 'Portree' by Thompson (1956, no. 312), and under 'Trotternish' by both Dolley (1966, no. 80) and Stevenson (1966, xxiii). Since the Storr Rock is some eight miles from Portree, and since Trotternish is the entire peninsula, the more specific usage of 'Storr Rock' for its location would seem preferable (as *VA II*, 113).

Amongst the 110 coins from the Storr Rock hoard, which date its deposition to *c* AD 935, are eighteen whole or fragmentary *dirhams*. In addition there are twenty-three pieces of hack-silver of which no detailed study has been made. These include fifteen ingot fragments (Thompson 1956, pl xvi, e1, e2) and three other plain fragments (*ibid*, pl xvi, e1).<sup>12</sup> A flat fragment with ring-stamped ornament (*VA II*, 113, c; Thompson 1956, pl xvi, e1) is probably from the terminal-plate of a neck-ring (as Rygh 1885, no. 703), whereas the other flat fragment with stamped ornament (*VA II*, 113, d; Thompson 1956, pl xvi, e2) is from an arm-ring (similar to Hawkins 1847, fig 32). The large rod fragment with a 'corded' appearance (Thompson 1956, pl xvi, e3) is not from a piece of 'ring-money' (as *VA II*, 113, a) since this is always plain (see below), but is from a spiral-ring of Baltic origin (Stenberger 1958, 123–34). This is the only fragment of such a spiral-ring known from Scotland, although examples are present in a number of early hoards from England and Ireland.<sup>13</sup>

The two remaining pieces of hack-silver in the Storr Rock hoard are both terminal fragments from penannular brooches (pl 11a). That of sub-rectangular section with stamped ornament on its upper face (*VA II*, 113, e; Thompson 1956, pl xvi, e2) belongs to Stenberger's 'Ring-pin Type I' (1958, fig 5) which is discussed below, in the context of a complete example from the Skaill hoard (pl 11b). The flat terminal fragment with incised ornament and an applied boss (*VA II*, 113, b; Thompson 1956, pl xvi, e3) is from a bossed brooch of Johansen's sub-group A (1973, 120, A17c, fig 48d) of Irish origin.<sup>14</sup> This is the latest example of a bossed brooch from a coin-dated hoard (Graham-Campbell 1976, fig 3). Its presence in the Storr Rock hoard, in combination with ingots, a spiral-ring fragment and *dirhams*, means that this hoard shares many features with those deposited in the Irish Sea area during the late 9th/early 10th century.<sup>15</sup> It has a marked Hiberno-Norse aspect and must reflect the close connections between the Norse settlements of Scotland and Ireland at this period.

#### *Phase II: the Skaill (Orkney) hoard*

The hoard from Skaill, Orkney (deposited *c* AD 950) is by far the largest Scandinavian-type silver hoard from Scotland.<sup>16</sup> The first finds from the hoard were made by a boy, in 1858, at the mouth of a rabbit-hole; soon after a group of people dug at the hole and the silver then discovered was dispersed amongst them.<sup>17</sup> 'Owing to the prompt and zealous exertions of Mr George Petrie . . . the whole was recovered for the Exchequer as treasure trove, and ultimately deposited in the Museum' (Anderson 1874, 575–6). That recovery was not then total is clear, not only from Petrie papers preserved in the library of the Society of Antiquaries of Scotland,<sup>18</sup> but also from the fact that eight objects from this hoard have been acquired by the National Museum of Antiquities during this century.<sup>19</sup> Petrie recovered a total of sixteen pounds of silver (*Proc Soc Antiq Scot*, 3 (1857–60), 249) so that the hoard certainly weighed well over seven kilograms and must have been of the order of eight. A weight of about eight kilograms means that the Skaill hoard is similar in size to the largest Viking-age silver hoards from Scandinavia (Sawyer 1971, 87).<sup>20</sup>

The Skaill hoard consists almost entirely of objects other than coins, of which there are only

twenty-one representing less than 0.4% of the hoard by weight of silver. Nineteen of these are *dirhams*, none being later than one of al-Mustakfi (AD 946-4). This factor, together with the absence of any of the very common Eadred coins (from AD 946 onwards), suggests that the hoard is unlikely to have been buried much after AD 950.<sup>21</sup>

This dating is of particular importance to students of Viking art (Wilson and Klindt-Jensen 1966, 115-16, 118; Jansson 1969) since two complete 'thistle-brooches' (pl 11c) have their terminals and pin-heads, together with one further terminal, ornamented with what Arbman (1962, 139) has described as typical 'insular Jellinge style'; new drawings have been prepared (fig 3). The best parallels for this animal ornament are found on some of the Manx crosses, particularly those from Kirk Braddan (Wilson and Klindt-Jensen 1966, figs 52 and 55) which Arbman (1962,

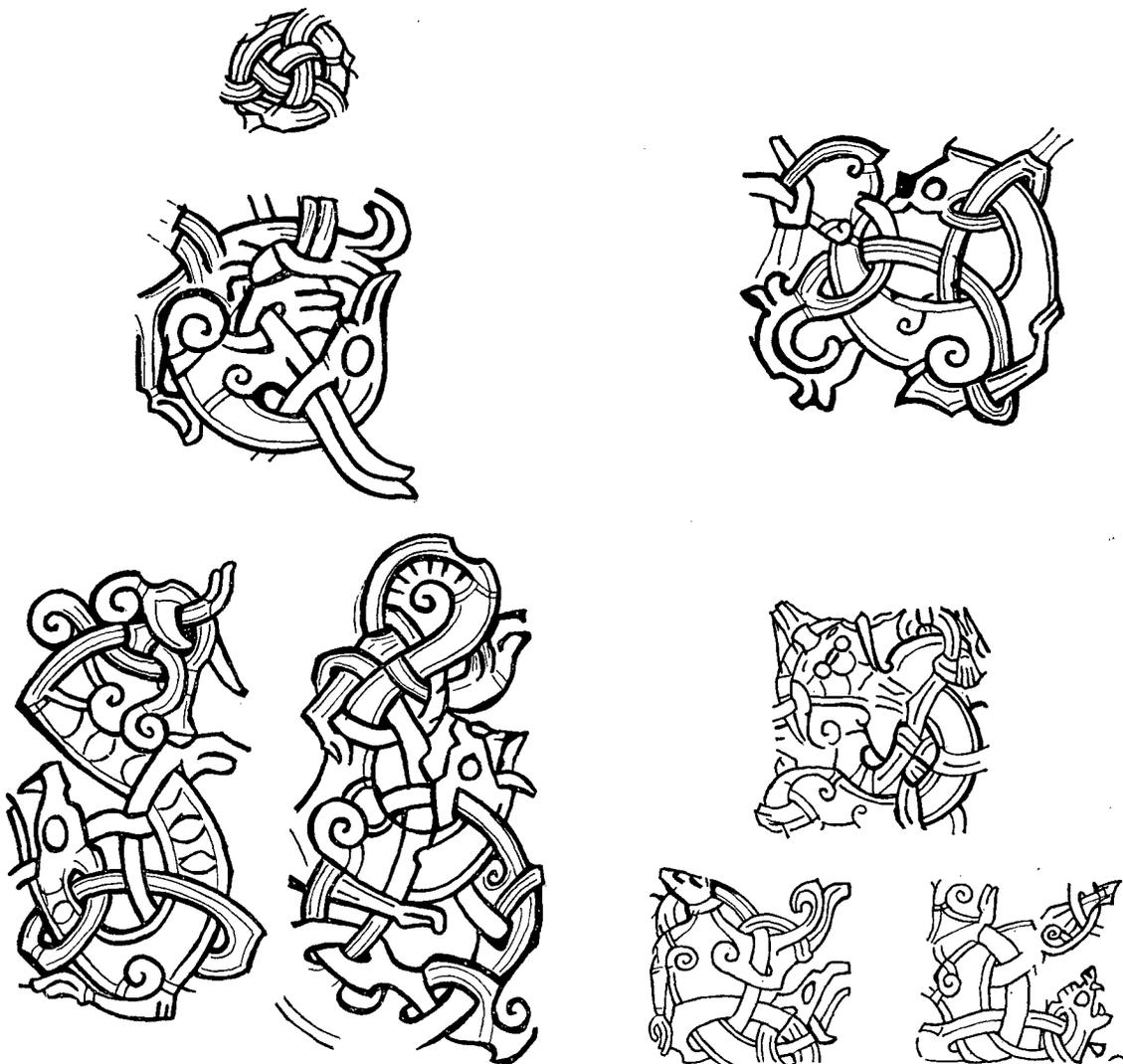


FIG 3 Ornament from penannular brooches in the Skail (Orkney) hoard (left: brooch IL 1; top right: terminal IL 5; bottom right: brooch IL 7). Scale 1 : 1

139) also considered to be of 'clearly Jellinge style'. Wilson, however, considers the Braddan crosses to be fine examples of his ensuing Mammen style (Wilson and Klindt-Jensen 1966, 112; Wilson 1970, 11–14), whilst maintaining that the Skaill brooches display 'a highly developed Jellinge style . . . verging on the Mammen style' (Wilson and Klindt-Jensen 1966, 115).

It is worth emphasising just how many Mammen characteristics are present in the ornament of the Skaill brooches (fig 3). The animals, and bird (NMAS cat no. IL 1: pin-head), all have their heads thrown back and the shell-spiral hips which are classic Mammen features; this same spiral recurs in the semi-foliate interlace which exists in profusion around their bodies in true Mammen fashion. The fleshy tendrils seen particularly on the separate terminal (IL 5) are again a classic element of the Mammen style. All these features may be seen in the ornament of the Mammen axe itself (Wilson and Klindt-Jensen 1966, pls lii–liii), where one can also find the semi-circular indentations of certain contours which occur in the ornament of the right-hand terminal of brooch IL 1. Only the distinctive pelleting of the true Mammen style is absent, and even this appears in a rudimentary form on the body of the animal on the left-hand terminal of IL 1. The Jellinge/Mammen style of the Skaill brooches suggests that the Braddan crosses cannot be far removed from them in date. The ornament of the brooches is seemingly all from the hand of one man.<sup>22</sup> It is probable that he worked or was trained in the Irish Sea area for, apart from the stylistic parallels with the Manx crosses, it is that area which is the main focus of insular 'thistle-brooch' finds. The Skaill hoard provides the single largest concentration of such brooches and fragments (a minimum of sixteen being represented), but it need not follow that they were made in Scotland. Indeed, there is only one other silver 'thistle-brooch' known from Scotland – a single-find from Gulberwick, Shetland (Appendix C).

The inventory of the Skaill hoard runs to over one hundred items, including many fine examples of typical Scandinavian neck-rings and arm-rings; other objects include pins, ingots and assorted hack-silver. To deal with the variety and quality of this material would require a paper in itself, but it is necessary here to draw attention to the presence of thirty-six complete and fragmentary examples of plain penannular arm-rings of a type generally known as 'ring-money' (VA II, fig 59; Thompson 1956, pl xx, 2), which are discussed below.

The other problem chosen for discussion here in connection with the Skaill hoard concerns the brooch (pl 11b) of Stenberger's 'Ring-pin Type I', already referred to in relation to the fragment from the Storr Rock hoard (pl 11a). The hoop of a second such brooch is also present in the hoard, although provided with the pin of a 'thistle-brooch' (Anderson 1874, 580). Stenberger (1958, 74–6) demonstrated that this type occurs in Gotland in late 10th-century hoards and believed it to be of E Swedish origin. These examples from coin-dated hoards in Scotland indicate that the type was in existence in the western Viking world as early as the second quarter of the 10th century. Stenberger also overlooked certain Norwegian examples, including another early brooch from the Voie, Aust-Agder hoard which was deposited *c* AD 930 (Greig 1929, 204; Skaare 1976, no. 62); there is a particularly fine example from the coinless hoard from Lillestue, Hedmark (Grieg 1929, 232). The type can now be seen to be a Norse development of the earlier 10th century, for which the fashion spread from Norway to Sweden and Gotland. It is a type seemingly influenced by 10th-century insular brooch fashions, as adopted by the Norse settlers, in displaying a preference for the use of pins of far greater length than the diameters of the hoops of the brooches.

#### *Phase II silver coin-hoards (late 10th/early 11th centuries)*

The fifty-year period from *c* AD 975 to *c* 1025 saw the deposition of the bulk of the known Viking-age coin-hoards of Scotland – thirteen in all. Two of these (Kilmartin, Argyllshire; North

Uist) have no recorded contents other than their coins, but they are old and poorly documented finds. Two hoards contained ingots in addition to their coins. That from Machrie, Islay (deposited *c* AD 975), contained 'four lumps of silver' of which two are described as 'of irregular form' and two as being 'small square bars, which had apparently formed part of a longer one' (Scott 1852, 72, 75, 80). Scott adds (*ibid*) that 'there is reason to believe that many more such were found', and that 'it is not known whether any ornaments of silver were found in the present hoard, as probably only a small part of it has been recovered'. The hoard from Tiree (also deposited *c* AD 975) is not recorded as having contained any ingots, but the British Museum acquired, in 1807, an ingot 'found among a parcel of Saxon and other coins in Scotland in the year 1780 upon the estate of the Duke of Argyll' (Appendix A, note iii). There is little doubt that this is to be identified with the 1782 hoard from Tiree, Argyllshire, for even in the early 19th century Ruding believed that this hoard had been found in 1780.<sup>23</sup>

A further coin-hoard deposited *c* AD 975 is that from Tarbat churchyard, Ross-shire, which contained four penannular arm-rings (pl 12) of the 'ring-money' type (see below). One of the two arm-rings from the hoard (*c* AD 975) found near Port Glasgow, Renfrewshire, is also of this type (Appendix B, note iv). The second is of twisted rods with spherical terminals, paralleled by an example from Ballacamaish, Isle of Man (*VA* IV, fig 23), and another from Long Wittenham, Berks (*Oxoniensia*, 23 (1958), fig 40, 133).

Of slightly later date is a hoard from Iona Abbey, which contained over 350 coins, a small fragment of gold rod, a silver ingot (Thompson 1966, pl xvi, a), and a silver mount with gold filigree ornament and a green glass setting; this last may well be Anglo-Saxon work, as suggested by Stevenson (1951, 171, pl xix, 1), for it is certainly not of Scandinavian origin. Dolley (1966, 33) has described the coins of this hoard as 'essentially an agglomeration of a "Tara" hoard with a handful of current coin from a few years later'. In other words, its composition is very similar to that of the many hoards deposited, particularly in Ireland, around the date of the battle of Tara in 980. Anlaf Sihtricsson, who was defeated at Tara, retired on pilgrimage to Iona where he died that same year. It is possible that the main part of the hoard was taken to Iona at that time, before being concealed some years later with a few additional coins – perhaps, as Stevenson (1951, 172) has suggested, on the occasion of a known Viking raid in AD 986.

The only other coin-hoard from Phase II which is known to have contained gold is that from Parkhill, Lindores, Fife, which was deposited *c* AD 1025. It is described by Small (1823, 221-2) as having contained 'some gold chains and bracelets', of which the chains were 'of rather a slender make', but they were already lost when he wrote (found 1814). Also lost is the ring 'curiously formed of silver twine' from the hoard of *c* 1025 from Jedburgh, Roxburghshire (*New Stat Account*, 3 (1845), 13). Without proper record again are the lost 'three large silver rings or armillæ, resembling oriental bangles' which formed part of the Inchkenneth hoard (*Proc Soc Antiq Lond*, 1 (1843-9), 296-7), although the British Museum have from this find the part of a Trichinoply silver chain mentioned above.<sup>24</sup> This Inchkenneth hoard is worthy of note as being the only hoard from Scotland containing Hiberno-Norse coins (Dolley 1966, 58).

The arm-rings from the hoard from Garthsbanks, Shetland (deposited *c* AD 1000), are also lost but may be identified as examples of 'ring-money' from an unpublished drawing (pl 13) attached to the deposition taken by Andrew Duncan, Sheriff Substitute of Zetland, in 1830 (Appendix A, note iv). On the reverse of the drawing is the following caption, initialled A[ndrew] D[uncan]:

- 'No 1 The Largest of the 6
- 2 The Next Largest

- 3 The Smallest of them
- 4 belonged to the articles inside the horn
- 5 Do Do.

Nos 1. 2 were made of square silver rods bent angle ways. The rest were round.'

Duncan must have seen six of the six or seven rings which he recorded as having been on the outside of the horn which contained the coins, although he did not draw two of them (those between nos 2 and 3 in size). The illustrated 'ring-money' fragments (nos 4 and 5) are to be identified with the 'bits of uncoined silver' found with the coins in the horn. A number of similar arm-rings were found in 1774, also with a horn full of coins, at Caldale, Orkney (deposited c AD 1025), but are once again all lost, although they may be identified from an illustration in Gough (1777).

Much more is known of what is the second largest hoard by weight from Scotland, although it has never been adequately published. This was found in a wooden container on the island of Burray, Orkney, in 1889. Its weight of some 1.9 kilograms is only about one-quarter of that of the Skail hoard, but like that from Skail it contains few coins; in this instance they represent no more than half of one per cent of the hoard by weight. Clearly even at this late date (the hoard was deposited c AD 998), there was little use for coins as currency in the Northern Isles – the importance of the silver still being its bullion value. The objects from the Burray hoard were inadequately catalogued in *VA II*, 135–8, and a new hand-list (unpublished) has been prepared by the National Museum of Antiquities of Scotland (1975). These include a fine neck-ring (Cursiter 1889, fig 1; Thompson 1966, pl viii, 1), the fragments of a second such ring (Thompson 1966, pl viii, 2), an ingot and a fragment of another. However, the greater part of the hoard consists of twenty-six complete and 110 fragments of plain penannular arm-rings, or 'ring-money' (see below).<sup>25</sup> These arm-rings (Cursiter 1889, fig 2; Thompson 1966, pl viii, 3–8) include both those with circular and with lozenge cross-sections, and those with tapered, 'cut-off', and flattened (or spatulate) terminals.

The final coin-hoard deposited within Phase II is a poorly recorded find from Dunrossness, Shetland, recently published by Dolley and Skaare (1973) from a coin and manuscript sources in the Royal Danish Coin Cabinet, Copenhagen (see also Skaare 1976, no 186). Its deposition is perhaps to be dated to the 1060s from the fact that it contained a coin of Harald Hardrada. Fragments of cut-up arm-rings are also recorded which, at this late date, are most likely to have been 'ring-money' fragments. This is the latest hoard of purely Scandinavian character from Britain or Ireland to contain hack-silver. In contrast, the latest coin-hoard from Ireland to contain anything other than coins was deposited c AD 1030 with just one ingot, and it was deposited nearly fifty years later than the main group of Irish coin-hoards containing non-numismatic material (Graham-Campbell 1976, 48–9). It is a further indication of how the Norse in Scotland persisted in an essentially non-coin-using economy, in contrast to the Scandinavians in Ireland who commenced minting their own coins in Dublin in AD 997.

#### *Phase III coin-hoard (12th century): Bute*

The lack of late 11th/early 12th-century hoards from Scotland has already been noted above, involving a gap of some eighty years in the deposition record between the Dunrossness hoard and that concealed on Bute, at Plan Farm (St Blane's), around AD 1150. This Bute hoard contains two gold finger-rings and a silver ingot (*NMAS Cat*, p 212) which 'link it curiously and exceptionally' with the 10th- and 11th-century hoards (Stevenson 1966, xvii), but in addition there are three gold fillets (*NMAS Cat*, p 212) which relate it instead to two hoards of 12th/13th-

century date from Iona (see below). Its coins of David I (died AD 1153) are of the earliest to be minted in Scotland (Mack 1966, 97-107), making it on all accounts a remarkable hybrid hoard.

#### *Coinless hoards (Appendix B)*

The twenty-one coin-hoards of Phases II and III, deposited between *c* AD 935 and *c* AD 1150, provide the chronological framework for the study of the ten silver and gold hoards from Scotland which contain objects of Scandinavian character but no coins.

To the Bute hoard (*c* AD 1150) may be linked an Iona hoard (from St Ronan's Chapel) which contained two fragments of a similar gold fillet (Curle 1924, fig 3, lower), a similar gold finger-ring of twisted rods (*ibid*, fig 4), and a small fragment of gold wire.<sup>26</sup> The remains of seven finger-rings form the greater part of a gold hoard from an unknown site in the Hebrides (*VA* II, fig 58), together with two rod fragments and part of an ingot. The hoard from Stenness, Orkney, consists solely of four such gold finger-rings (*VA* II, fig 62). All these finger-rings are long-lived types, and these latter two hoards are more probably of 10th- rather than 12th-century date.

There is one such gold finger-ring from a little known hack-silver hoard from Gordon, Berwickshire, the contents of which are now lost (pl 14). This also contained two silver ingots and an ornamented pin fragment of Irish type (cp Johansen 1973, fig 62) which finds a close parallel in the Cuerdale hoard (Hawkins 1847, fig 42), deposited *c* AD 903. The final object (pl 14, 3) is a fragment of an ornamented arm-ring of a type which has been isolated as being of Hiberno-Viking manufacture (Graham-Campbell 1976, 51-3). There are only three other examples known from Scotland, two of which constitute an unprovenanced hoard (*VA* II, fig 57), whereas over sixty have been found in Ireland. The type has been dated to within the period *c* AD 850-950 (see also Table 1). On the basis of the brooch-pin and the arm-ring, it may be suggested that the Gordon hoard is most likely to have been deposited during the late 9th or the first half of the 10th century. It ranks therefore alongside the Storr Rock hoard (*c* AD 935) as one of the earliest Norse hoards from Scotland, and similarly, it displays strong Irish connections.

The other five coinless hoards contain the remains of a total of twenty-six plain penannular arm-rings, although in the case of the hoard from Dibadail, Lewis, there are two finger-rings in addition to its larger rings.<sup>27</sup> These examples of 'ring-money' are discussed below.

#### *Single-finds (Appendix C)*

Seven of the fifteen single-finds from Scotland of silver and gold objects of Scandinavian character are finger-rings, similar to those encountered in the hoards. Certain other objects have been mentioned above, including the silver pin and chain from the Ballinaby grave, and the Shetland 'thistle-brooch'. The silver arm-ring fragment from Blackerne, Kirkcudbrightshire, is a small example of the Hiberno-Viking type, whilst that from Clibberswick, on Unst in Shetland, although similar in form, lacks the diagnostic ornamentation (as one from the Cuerdale hoard: Hawkins 1847, fig 11; *VA* IV, fig 9).

A pin from the 9th-century Norse burial at Kiloran Bay, Colonsay, is of a well-known Scandinavian type with a rectangular expanded pin-head on top of which is a loop through which a small ring is attached (now missing); several examples are present, for instance, in burials at Birka, Sweden (Arbman 1940, pl 170, 7-10, and pl 171, 3-5).

The annular gold arm-ring from Oxna, Shetland, is one of the finest of its kind, manufactured of pairs of rods twisted together, as imitated on a smaller scale by many of the finger-rings. The silver penannular ring from the settlement-site at Jarlshof, Shetland, is one further example of the plain 'ring-money' type of which the chronology and significance must now be considered.

## 'Ring-money'

The term 'ring-money' is used by Grieg in *VA* II to translate the Norwegian *betalingsring* used by him in his earlier summary account of the Scottish hoards (1929, 270–5) to describe certain plain penannular arm-rings, particularly those in the Skaill and Burray hoards. *Betalings-sølv* (literally 'payment-silver') is the Norwegian term used by him as an equivalent of our 'hack-silver' in the sense of 'bullion'. From this it is clear that Grieg interpreted *betalingsringen*, or 'ring-money', as being manufactured primarily as a form of currency rather than simply as ornaments.

The rings referred to by Grieg as 'ring-money' (as pls 12–13) may be defined as follows: they are penannular in form and have plain hoops which may either be of circular or lozenge-shaped section (although certain examples have the four angles somewhat flattened, particularly at the mid-part of the hoop, to give an octagonal section)<sup>28</sup>; the terminals taper to points, or are straight cut, or are flattened ('spatulate').

As mentioned above, 'ring-money' first appears in Scotland in a dated context in the Skaill hoard (*c* AD 950); the full range of the dating-evidence is presented in Table 1. The suggestion that the Dunrossness hoard of the 1060s (and the Inch Kenneth hoard) contained fragments of 'ring-money' is based on two factors. Firstly, simple 'ring-money' was definitely in circulation as late as *c* AD 1060 as demonstrated by the Kirk Michael 1972/75 hoard (Isle of Man).<sup>29</sup> Secondly, no other type of arm-ring is present in the hoards from Tarbat (pl 12), Burray, Garthsbanks (pl 13), and Caldale, suggesting that 'ring-money' was the only type of arm-ring in general circulation in Scotland from the late 10th century onwards.

TABLE 1

COIN-DATED HOARDS (9TH–11TH CENTURIES), FROM BRITAIN AND IRELAND, CONTAINING SILVER ARM-RINGS OR FRAGMENTS (WITH GRIMESTAD, NORWAY)

<i>Provenance</i>	<i>Deposition date</i>	<i>Hiberno-Viking arm-rings</i>	<i>'Ring-money'</i>
Croydon (England)	<i>c</i> 875	+	—
Cuerdale (England)	<i>c</i> 903	+	—
Goldsborough (England)	<i>c</i> 920	+	—
Bangor (Wales)	<i>c</i> 927	—	—
Bossall/Flaxton (England)	<i>c</i> 927	—	—
Grimestad (Norway)	<i>c</i> 930	+	+
'Ireland'	930s	—	—
Storr Rock (Scotland)	<i>c</i> 935	—	—
Skaill (Scotland)	<i>c</i> 950	—	+
Chester (England)	<i>c</i> 970	—	+
Douglas (Isle of Man)	<i>c</i> 975	—	+
Port Glasgow (Scotland)	<i>c</i> 975	—	+
Tarbat (Scotland)	<i>c</i> 975	—	+
Burray (Scotland)	<i>c</i> 998	—	+
Garthsbanks (Scotland)	<i>c</i> 1000	—	+
Inch Kenneth (Scotland)	<i>c</i> 1000	—	?
Caldale (Scotland)	<i>c</i> 1025	—	+
West Nappin (Isle of Man)	1040s	—	+
Kirk Michael 1972/5 (Isle of Man)	<i>c</i> 1060	—	+
Dunrossness (Scotland)	<i>c</i> 1065?	—	?

No certain examples of 'ring-money' are present in the English and Irish hoards of the first quarter of the 10th century, although the Cuerdale hoard contains plain annular arm-rings which are probably to be regarded as the prototypes of the 'ring-money' sequence (Hawkins 1847, figs 48–9, 53–4; *VA* IV, figs 9–11). The earliest examples of true 'ring-money' from a coin-hoard are in a Norwegian hoard, from Grimestad, Vestfold, which was deposited *c* AD 930 (Skaare

1976, no. 43); this hoard also contains examples of the Hiberno-Viking arm-ring type (*Universitetets Oldsaksamlings Årbok*, (1935-6), 268-73). The evidence of the coin-dated hoards suggests that arm-rings of the 'ring-money' type date within the bracket of *c* 925 to *c* 1075, with the majority belonging to the period AD 950-1050.

The distribution of 'ring-money' makes it clear that it is predominantly of Norse-Scottish manufacture. There are sixty-two complete examples in the National Museum of Antiquities of Scotland (Warner 1976, Appendix), and other lost examples are known (as above); in addition there are some 150 surviving fragments. In Scandinavia,<sup>30</sup> and the rest of the British Isles,<sup>31</sup> they are comparatively rare, except from the Isle of Man where they are present in three coin-hoards (Warner 1976, Appendix)<sup>32</sup> and a lost, coinless hoard.<sup>33</sup>

It appears, therefore, that the Norse in Scotland were making general use of a simple arm-ring type, particularly in the period AD 950 to 1050, when the Scandinavian settlers in Ireland and England were to a great extent coin-using (and even coin-minting). If in fact 'ring-money' was in use as a form of currency, the question arises as to whether there is any standardisation in their weights.

Warner (1976, 136-43) has analysed the weights of the seventy-two complete arm-rings from Scotland and the Isle of Man (Appendix). His conclusion that there existed preferred targets based on a unit of  $24.0 \pm 0.8$  gm is of particular interest in that the Scandinavian Viking-age 'ounce' is considered to have weighed about 24 gm (Brøgger 1921). It does not necessarily follow that 'ring-money' was in general circulation as a form of currency and, if this was the case, it is disturbing that there is such a large deviation in the weights of the arm-rings from the preferred targets. Further work needs to be done in this field, as the results to date are clearly of considerable interest. The Irish and Norwegian examples of 'ring-money' need to be taken into consideration; size-differential, in terms of the internal diameters of the rings, should be studied as a control.<sup>34</sup>

#### *The silver*

The National Museum of Antiquities of Scotland has for some years had in progress an extensive analytical programme covering 1st- to 10th-century silver. The coin analyses have already been published (McKerrell and Stevenson 1972), but those of the silver objects are still awaited. The completion of this programme will be the next major step forward in the study of the Viking-age hoards of Scotland (and indeed of the British Isles) since there exists 'a distinct possibility of dating objects or hoards containing silver likely to have derived from coins of this period' (*ibid*, 201-2), as indeed is likely to have been the case with most Scottish finds. Results on the Skaill and Burray hoards have been particularly encouraging (*ibid*, 202), giving tentative dates of manufacture of AD 940 for the Skaill hoard (deposited *c* AD 950), and of AD 977 for the Burray hoard (deposited *c* AD 998).

#### *Conclusions*

A total of thirty-one hoards of Scandinavian character from Scotland, deposited during the 9th to 12th centuries, has been discussed, together with fifteen single-finds of gold and silver objects of Scandinavian manufacture or type. From Ireland, 107 hoards are now known from this same period,<sup>35</sup> together with over 150 single-finds of gold and silver objects (Graham-Campbell 1976). The wealth of the Scandinavians in Ireland was clearly on a different scale to that of the Norse settlements in Scotland and can only be explained by their intensive commercial relations with England and the Continent.

It is equally clear, however, that Duncan (1975, 463) is wrong to see the Lindores hoard (*c* AD 1025) as evidence of more 'intensive commercial activity [in Scotland] which alone could

lead to the accumulation of so much liquid capital', except in the context of the development of the Lowlands. He ignores the fact that there are 10th- and early 11th-century hoards from the Northern and Western Isles (Storr Rock, Tiree, Iona, Inch Kenneth and Caldale) which contain as many coins as, and some more than, the Lindores hoard – all of which are insignificant when compared with the bullion value of the Skaill and Burray hoards. Although the Norse in Scotland had not the wealth of their compatriots in Ireland, it was in their areas of settlement that the wealth of Scotland was concentrated in the 10th and early 11th centuries.

From the study of the Irish coin-hoards (Graham-Campbell 1976, fig 2), it emerged that only eleven out of sixty-nine hoards contained objects in addition to coins. This is in marked contrast to the Scottish situation where eighteen out of twenty-one coin-hoards contain additional non-numismatic material. The three hoards which consist seemingly of coins alone (Unprovenanced; North Uist; Kilmartin) are all 18th- or 19th-century finds which are poorly documented; any, or all, of them may also have contained ingots, or other small fragments, which were not recorded at the time of discovery (cp Tiree). Whereas there exists the possibility, as Stevenson has suggested (1966, xvi), that the Anglo-Saxon coins in the later 10th-century hoards were more than just bullion, there is no sign of any real transition towards a coin-using economy. Stevenson's suggestion (*loc cit*) is that these Anglo-Saxon coins would have been used on trading expeditions to England and Ireland, but it seems that 'ring-money' served this purpose adequately when necessary, and the total lack of 11th-century Hiberno-Norse coins from Scottish hoards may be a further reflection of this fact.

The contrasts between the Scottish and Irish evidence suggest that overseas trade, other than in basic commodities, did not play a central part in the economic life of the Norse settlers in Scotland. This conclusion also emerges from the lack of any urban development in the areas of Norse settlement, in comparison with the situation in Ireland where Scandinavian settlement was to all intents and purposes confined to coastal towns (de Paor 1976). The importance of the hoard-evidence for an understanding of the nature of the Norse settlement of Scotland is clearly of a different order than it is for Ireland. But it is evidence which, however inadequately explored as yet, must not be ignored in the interpretation of the settlement-studies that are now awaited.

## APPENDIX A

### Silver coin-hoards (c AD 800–1150) from Scotland (fig 1)

<i>Provenance</i>	<i>Deposition</i>	<i>Objects</i>	<i>Sources</i>
Croy, Inverness-shire	c 850	+	Stevenson 1966, xix; Dolley 1966, no. 9.
Talnotrie, Kirkcudbrightshire	c 875	+	Stevenson 1966, xxiii; Dolly 1966, no. 49.
St Helen's, Cockburnspath, Berwickshire	c 935?	+	Stevenson 1966, xxiii; Dolley 1966, no. 75.
Storr Rock, Trotternish, Skye	c 935	+	Stevenson 1966, xxiii; Dolley 1966, no. 80.
Unprovenanced	c 940?	–	Stevenson 1966, xxi; <i>infra</i> note (i)
Skaill, Sandwick, Orkney	c 950	+	Stevenson 1966, xxii; Dolley 1966, no. 84.
Machrie, Kildalton, Islay	c 975	+	Stevenson 1966, xxi; Dolley 1966, no. 114; <i>infra</i> note (ii).

Nr Port Glasgow, Renfrewshire	c 975	+	Stevenson 1966, xxii; Dolley 1966, no. 115.
Tarbat, Ross-shire	c 975	+	Stevenson 1966, xxiii; Dolley 1966, no. 118.
Tiree, Argyll	c 975	+	Stevenson 1966, xxiii; Dolley 1966, no. 119; <i>infra</i> note (iii).
North Uist	c 985	–	Stevenson 1966, xxii; Dolley 1966, no. 122.
Iona Abbey, Iona, Argyll	c 986	+	Stevenson 1966, xx; Dolley 1966, no. 124.
Burray, Orkney	c 998	+	Stevenson 1966, xviii; Dolley 1966, no. 132.
Garthsbanks, Quendale, Shetland	c 1000	+	Stevenson 1966, xix; Dolley 1966, no. 136; <i>infra</i> note (iv).
Inchkenneth, Argyll	c 1000	+	Stevenson 1966, xix; Dolley 1966, no. 133.
Caldale, Kirkwall, Orkney	c 1025	+	Stevenson 1966, xviii; Dolley 1966, no. 152.
Jedburgh (Bongate), Roxburghshire	c 1025	+	Stevenson 1966, xx; Dolley 1966, no. 147.
Kilmartin, Argyll	c 1025?	–	Stevenson 1966, xx.
Parkhill, Lindores, Fife	c 1025	+	Stevenson 1966, xxii; Dolley 1966, no. 149.
Dunrossness, Shetland	c 1065?	+	Dolley and Skaare 1973.
Plan Farm, St Blane's Church, Bute	c 1150	+	Thompson 1956, no. 63; Mack 1966; <i>infra</i> note (v).

*Notes* All hoards shown as containing objects, in addition to coins, are also listed in Appendix B, with additional references.

(i) I am most grateful to Professor Michael Dolley for advice as to the deposition date of this unprovenanced hoard.

(ii) Following Stevenson (1966, ix, xi) that the Knowe, Islay, parcel very probably forms part of this hoard.

(iii) In 1807, the British Museum was presented with an ingot (1807, 3–14, 1) which was, according to the Register, 'found among a parcel of Saxon and other coins in Scotland in the year 1780 upon the estate of the Duke of Argyll'. The ingot can no longer be identified with certainty, although there is in the Museum an unnumbered ingot which, in the absence of any other unnumbered specimens, may be equated with this find. This hoard is probably to be identified with that of 1782 from Tiree, Argyllshire, for Ruding in the early 19th century thought that this Tiree hoard had been found in 1780 (Stevenson 1966, viii). Confirmation of this identification is afforded by the fact that the British Museum ingot displays the 'waxy' green corrosion which is a characteristic feature of the Tiree coins (*ibid*, xi). I am most grateful to Dr Graham Ritchie for drawing my attention to this ingot, and to Mrs L Webster and Miss M Archibald for arranging a comparison between the ingot and Tiree coins in the Department of Coins and Medals, British Museum.

(iv) This hoard is to be equated with the 'Shetland (1821)' hoard advanced by Dolley (1966, no. 130) on the basis of a letter to Sir Walter Scott, quoted by Beard (1933, 85). Beard believed the letter to have dated to about November 1821, but he was unable to trace it. It describes the discovery, a few weeks before, of a hoard near Fitful Head, Shetland. It states that some workmen who were 'taking up the foundation of an old wall came on a hearth-stone, under which they found a horn, surrounded with massive silver rings, like bracelets, and filled with coins of the Heptarchy, in perfect preservation'. This description fits closely the circumstances of the discovery of a hoard in November 1830, at Garthsbanks, Quendale (near Fitful Head).

In the NMAS is preserved a copy of the deposition taken by the Sheriff Substitute of Zetland, on 7 December 1830, concerning this discovery (Antiquaries MS Communications, vol VI, 1829–32). It records

that the finders 'came upon the remains of an old wall which apparently had been part of a dwelling house at some period or other, as they found what they conceived to be the hearth of the house with ashes and soot about it. That in turning over the rubbish, William Johnson picked up a decayed neat's horn which upon examination appeared to have been wrapped up in a piece of coarse cloth with a yellow thread round it, upon the removal of which the horn crumbled to pieces when its contents which had consisted of some small and very thin old coins much wasted with some bits of uncoined silver, all sticking together in a mass with rust, was discovered. Declared that on the outside of the horn there were six or seven metal hoops, which they immediately discovered to be silver formed of small square bars bent to the shape of the horn till the two points met within about a thumbbreadth.' This description of the 'hoops' is supported by a sketch of three complete examples and two fragments, of typical 'ring-money'.

(v) I am most grateful to Mr R B K Stevenson for advice on the deposition date of this hoard.

#### *Other Viking-age coin-hoards from Scotland*

Omitted from the above list (and map, fig 1), on the grounds that they are not silver, are the following hoards of copper *stycas*:

Jedburgh (Abbey Bridge), Roxburghshire	Stevenson 1966, xii, xx; Dolley 1966, no. 16.
Kiloran Bay, Colonsay	Stevenson 1966, xx; Dolley 1966, no. 31.
Paisley, Renfrewshire	Stevenson 1966, xxii; Dolley 1966, no. 38.
No locality, (a)	Stevenson 1966, xxi.
No locality, (b)	<i>Ibid.</i>
No locality, (c)	<i>Ibid.</i>

## APPENDIX B

Viking-age hoards from Scotland containing gold and silver objects of Scandinavian origin or character (fig 1)

<i>Provenance</i>	<i>Contents</i>	<i>Sources</i>
Burray, Orkney	c 988; 26 'ring-money' and 100+ frags, neck-ring and frags, ingot and frag	VA II, 135-8; Thompson 1956, no. 61, pl viii; <i>infra</i> note (i).
Caldale, Kirkwall, Orkney	c 1025; 'ring-money'	VA II, 119; <i>infra</i> note (ii).
Croy, Inverness-shire	c 850; Pictish penannular brooch frags, bronze balance-beam, chain, glass and amber beads	VA II, 193-4; <i>Antiq J</i> , 20 (1940), 383; Thompson 1956, no. 109, pl xi; Small, Thomas and Wilson 1973, <i>passim</i> .
Dibadail, South Dell, Lewis	3 'ring-money', 2 finger-rings	<i>Proc Soc Antiq Scot</i> , 73 (1938-9), 327, pl xcix; VA VI, 237.
Dunrossness, Shetland	c 1065?; arm-ring frags (? 'ring-money')	Dolley and Skaare 1973; Skaare 1976, no. 186; <i>infra</i> note (iii).
Garthsbanks, Quendale, Shetland	c 1000; 6/7 'ring-money', 'bits of uncoined silver'	VA II, 140; see Appendix A, note (iv).
Gordon, Berwickshire	gold finger-ring, 2 ingots, Hiberno-Viking arm-ring frag, pin-frag	Stobbs 1885; see pl 14
Hebrides	6 gold finger-rings and frags	VA II, 116-8, fig 58.
Inchkenneth, Argyll	c 1000; 3 arm-rings, chain	<i>Proc Soc Antiq London</i> , 1 (1843-9), 296-7; Stevenson 1966, xxx, xxxi.
Iona (Abbey), Argyll	c 986; ingot, gold rod frag, mount	Stevenson 1951; Thompson 1956, no. 198, pl xvi, a.
Iona (St Ronan's Chapel), Argyll	gold finger-ring, 2 gold fillet frags, gold wire frag.	Curle 1924, 109-11.
Jedburgh (Bongate), Roxburghshire	c 1025; ring	<i>New Stat Account</i> , 3 (1845), 13.
Kirk o' Banks, Rattar, Dunnet, Caithness	8 'ring-money'	VA II, 110-11.

Machrie, Islay	c 975; 4 <sup>+</sup> ingots	<i>Proc Soc Antiq Scot</i> , 1 (1851-4), 72, 74-81.
Parkhill, Lindores, Fife	c 1025; 'gold chains and bracelets'	Small 1823, 221-2.
Plan Farm, St Blane's Church, Bute	c 1150; 2 gold finger-rings, 3 gold fillets, ingot	Pollexfen and Sim 1864; <i>NMAS Cat</i> , 211-12.
Nr Port Glasgow, Renfrewshire	c 975?; 1 'ring-money', 1 penannular arm-ring	<i>VA II</i> , 142; <i>infra</i> note (iv).
Ring of Brogar, Stenness, Orkney	9 'ring-money'	<i>VA II</i> , 134
St Helen's, Cockburnspath, Berwickshire	c 935?; 'an ancient rosary'	<i>New Stat Account</i> , 2 (1845), 304-5
Skye, no. 1 (before 1781)	1 'ring-money' and 1 frag	<i>VA II</i> , 112-13.
Skye, no. 2 (1850)	1 'ring-money' and 3 frags	<i>VA II</i> , 112.
Skaill, Sandwick, Orkney	c 950; 'thistle-brooches', 'ring-money', neck-rings, arm-rings, ingots, hack-silver	<i>VA II</i> , 119-33, figs 59-61; <i>VA VI</i> , 237-8, fig 78; <i>Proc Soc Antiq Scot</i> , 70 (1935-6), 210-2, figs 1-2; and 72 (1937-8), 130-1, fig 2; Thompson 1956, no. 322, pls xvii-xx, xxi, a, c1.
Stenness, Orkney	4 gold finger-rings	<i>VA II</i> , 133-4, fig 62.
Storr Rock, Trotternish, Skye	c 935; hack-silver (inc. brooches and ingots)	<i>VA II</i> , 113-15; Thompson 1956, no. 312, pl xvi, e.
Talnotrie, Kirkcudbrightshire	c 875; gold finger-ring, Anglo-Saxon ornaments, claystone spindle-whorls, wax, etc	Maxwell 1912; Thompson 1956, no. 349, pls xxi, c2-6, and xxii, a.
Tarbat, Ross-shire	c 975; 4 'ring-money'	<i>VA II</i> , 109-10; Thompson 1956, no. 351, pl xxii, b.
Tiree, Argyll	c 975; ingot	Appendix A, note (iii).
Unprovenanced	2 Hiberno-Viking arm-rings	<i>VA II</i> , 111, fig 57; Butler 1966, 100-1, pl ii.

*Notes* All objects are silver unless otherwise stated. Primary sources for most hoards are given in *VA II* and when correct are not repeated here. Sources for the coin-hoards are the principle ones for their non-numismatic contents and are complementary to those given in Appendix A.

(i) The discovery of the Burray hoard is reported in *Proc Soc Antiq Scot*, 23 (1889-9), 318-22, and not in vol 18 (as *VA II*, 138). The list in *VA II*, 135-7, is particularly inadequate and has recently been replaced with a new hand-list (*NMAS*: unpublished).

(ii) The discovery of the Caldale hoard is reported in *Proc Soc Antiq Scot*, 10 (1872-4), 584, and not in vol 9 (as *VA II*, 119).

(iii) The Dunrossness hoard is described as having contained several cut-up arm-rings (Dolley and Skaare 1973, 222) which although now lost are most likely to have been fragments of 'ring-money' (see *supra*, p 125).

(iv) These two arm-rings (*ex Advocates' Collection*), in the *NMAS* (IL 225-6), are unprovenanced in *VA II*, 142, but have been attributed satisfactorily by Stevenson (1966, xv, xxvii) to this coin-hoard, from near Port Glasgow, Renfrewshire, which is known to have contained two silver penannular arm-rings.

#### *Other Viking-age coinless silver hoards from Scotland*

The following hoards have been omitted from the above list (and map, fig 1) on the grounds that they contain no objects of Scandinavian origin or character. They contrast strongly with the above hoards in that they are totally lacking in rings, ingots and hack-silver. They consist in the main of native (i.e. Pictish) metalwork.

St Ninian's Isle, Shetland	Small, Thomas and Wilson, 1973.
Rogart, Sutherland	<i>Ibid</i> , 81-2, <i>et passim</i> .
Nr Perth, Perthshire	<i>Ibid</i> , 89, <i>et passim</i> .

## APPENDIX C

Single-finds of Viking-age gold and silver objects of Scandinavian origin or character

<i>Provenance</i>	<i>Object</i>	<i>Sources</i>
Ballinaby, Islay	silver pin and chain	<i>VA</i> II, 37–8, fig 18; Waterman 1948, 181–3, fig 1.
Blackerne, Crossmichael, Kirkcudbrightshire	silver Hiberno-Viking arm-ring frag	<i>VA</i> II, 109; <i>VA</i> VI, 238.
Broch of Struan, Skye	gold finger-ring	<i>Proc Soc Antiq Scot</i> , 55 (1920–1), 123, fig 9, 3; <i>VA</i> VI, 238.
Brough of Birsay, Orkney	silver finger-ring	Unpublished; <i>infra</i> note (i).
Clibberswick, Unst, Shetland	silver penannular arm-ring	<i>VA</i> II, 104–5.
Fladda Chuinn, off Skye	gold finger-ring	<i>NMAS Cat</i> , 211; <i>VA</i> II, fig 58.
Jarlshof, Shetland	1 silver 'ring-money'	Hamilton 1956, 152, fig 60, 8.
Kiloran Bay, Colonsay	silver pin	<i>VA</i> II, 58, fig 30; <i>infra</i> note (ii).
Gulberwick, Shetland	silver 'thistle-brooch'	<i>VA</i> II, 139–40, fig 63, a–b; Wainwright 1962, 148, pl xv, g; <i>infra</i> note (iii).
Marrister, Whalsay, Shetland	gold finger-ring	<i>VA</i> II, 141, fig 64; <i>infra</i> note (iv).
Oxna, Shetland	annular gold arm-ring	<i>VA</i> II, 141–2, fig 65; <i>infra</i> note (v).
Nr St Andrews, Fife	gold finger-ring	<i>Proc Soc Antiq Scot</i> , 33 (1898–9), 8.
Tundergarth, Annandale, Dumfriesshire	gold finger-ring	Dalton 1912, no. 208; <i>VA</i> VI, 237.
Westness, Rousay, Orkney	silver finger-ring	<i>VA</i> VI, 238; <i>infra</i> note (vi).
Westness, Rousay, Orkney	gold frag	Hillern Hanssen Kaland 1973, 99.

*Notes* (i) *NMAS*: IL 50. 'Wire ring, silver, one end looped, the other broken off, thirteen sixteenths of an inch diameter'. In process of publication by Mrs C Curle; information from Dr Close-Brooks.

(ii) This pin is wrongly described as being of bronze in *Proc Soc Antiq Scot*, 41 (1906–7), 445 and in *VA* II, 58; information from Dr Close-Brooks.

(iii) Following Wainwright (*loc cit*) this brooch, originally described as found 'between Lerwick and Scalloway', is provenanced to Gulberwick.

(iv) The acquisition of this ring is noted in *Proc Soc Antiq Scot*, 56 (1921–2), 23, and not in vol 16 (as *VA* II, 141).

(v) This arm-ring was first published (although not fully provenanced) in *Proc Soc Antiq Scot*, 37 (1902–3), 349–50.

(vi) In *VA* VI, 238, this ring is described as being from Swandro. This is the same site as that which is now known as Westness (Hillern Hanssen Kaland 1973; the ring is that mentioned on p 99).

*Other possible single-finds*

The gold ring from near Glasgow, Renfrewshire, included in *VA* II, 109, is omitted from the above list on the grounds that it is of bronze-age type.

The Burghead horn-mount, also included in *VA* II, 159–61, fig 75, is omitted on the grounds that it is of Anglo-Saxon manufacture (Graham-Campbell 1973).

The unstratified silver mount, ornamented with incised ring-and-dot motifs, from beside the Norse settlement on Drimore Machair (MacLaren 1974, fig 2, 1 and pl 2) is omitted on the grounds that it is probably of post-Norse medieval date.

The plain silver finger-ring from Ardvonrig, Barra (BM reg no: 95, 6–13, 21), did not form part of the grave-goods from the Norse burial (*VA* II, 72). According to the BM register, it was found in the area surrounding the mound along with other objects, including two bronze stick-pins. Its simplicity precludes close dating and, although it is likely to be medieval, it could well be post-Norse in date. I am grateful to Miss Kate Gordon for bringing this find to my attention.

## ACKNOWLEDGMENTS

I am particularly grateful to Mr R B K Stevenson and Dr J Close-Brooks of the National Museum of Antiquities of Scotland for their kindness and assistance during the collection of the material for this study; to Professor Michael Dolley (Queen's University, Belfast) for much useful information and profitable discussion; and to Mr R Warner (Ulster Museum) for his analysis of the 'ring-money' weights (below, pp 136-43). In addition to the specific acknowledgments for advice and information gratefully made in the notes, I also wish to thank the following for their help and encouragement: Mr M Treharne, Mrs L Webster, and Professor David Wilson. The map (fig 1) was kindly drawn for me by Mrs Eva Wilson, who also prepared the drawings of the ornament on the Skaill brooches (fig 3), from those of Miss F Carson and myself. Plates 11 and 13 were provided by, and are the copyright of, the National Museum of Antiquities of Scotland.

## NOTES

- 1 The grave evidence from W Scotland is at present under review by Miss Kate Gordon.
- 2 The author would be most grateful to be informed (at University College, London WC1E 6BT) of material which he may have overlooked in the compilation of Appendices A-C.
- 3 'Hack-silver' consists of cut, or deliberately broken, fragments of silver ornaments and ingots. It forms a major element in the Viking-age silver hoards of Scandinavia (Stenberger 1961).
- 4 The distribution of Scandinavian place-names in Scotland has most recently been reviewed by Nicolaisen (1969); certain maps are also available in MacNeill and Nicholson 1975, maps 6, a-f.
- 5 Norse graves in Scotland have most recently been mapped by Wilson 1971, fig 14, and in MacNeill and Nicholson 1975, map 13. *Britain before the Norman Conquest* (Ordnance Survey, Southampton: 1973) is a worthy attempt to combine the evidence of place-names, graves, settlement-sites, and hoards on a single map.
- 6 References for individual finds are made in Appendices A-C and are not normally repeated in the text.
- 7 Mr Stevenson informs me that the information from Perth Museum about these particular objects, which he published in *VA VI*, 238, seems likely to have been 'in all possibility either unreliable, or misunderstood, or both'.
- 8 Laing (1975, 196) is mistaken in describing this as a W coast find.
- 9 Sterling silver: 92.5%. I am most grateful to Dr H McKerrell, NMAS Research Laboratory, for this preliminary information from the Museum's silver analysis programme. The analyses of two 9th-century Anglo-Saxon silver objects, found in Scotland, have been published by Graham-Campbell (1973, 46-7).
- 10 There is no evidence that this is specifically a 'coin weight' as stated by Laing (1973, 47).
- 11 Analysis by Dr McKerrell, NMAS Research Laboratory, established that this is probably, but not certainly, beeswax.
- 12 Two rods (NMAS cat no. IL 287, 302) and a strip of rectangular section (IL 288). IL 302 is not illustrated by Thompson (1956, pl xvi, e); one ingot fragment is also omitted by him.
- 13 Croydon (c AD 875) and Cuerdale (c AD 903); 'Co Dublin' (c AD 935).
- 14 Johansen's (1973) conclusions have been reviewed by Graham-Campbell (1975), and further discussed by both authors in *Norwegian Archaeol Rev*, 9 (1976), 45-55, 127-8.
- 15 As also Croydon, Surrey (Blunt and Dolley 1959, 222-34; *VA VI*, 242-3); for these hoards see Graham-Campbell 1976, and Wilson 1955, 171-2.
- 16 This is the same hoard as that listed under Sandwick by Thompson (1956, no. 322, pls xvii-xxi, a and c1; pl xxi, c1 is wrongly described as being of the Talnotrie hoard).
- 17 An account of the discovery of the Skaill hoard, published in *John o' Groat Journal* (24 April 1858), was reprinted in the *Gentleman's Magazine* (1858), 542.
- 18 1. Uncatalogued: 'Correspondence etc of George Petrie re the recovery of relics in the silver hoard at Skaill' (March 1858). 2. Ms 378, 2: 'Notice of a large collection of fibulae, torcs and other silver ornaments and coins, discovered in the parish of Sandwick in Orkney' by George Petrie (1 November 1858).

- 19 The penannular brooch known previously only from a drawing (*VA* II, fig 61) is now registered as IL 742. Acquisition of the other objects is recorded in *Proc Soc Antiq Scot*, 70 (1935–6), 210–12, figs 1–2, and *ibid*, 72 (1937–8), 130–1, fig 2.
- 20 Except for the heaviest silver hoard from Scandinavia which is now that from Burge, Lummelunda, Gotland, weighing 10.369 kg, which was deposited *c* AD 1140 (Berghaus *et al*, 1969). The hoard from Cuerdale, Lancashire, weighed *c* 40 kg.
- 21 I am most grateful to Mr Stevenson for discussing this deposition date with me.
- 22 Professor David Wilson informs me that he too is of the opinion that the brooches' ornament is from a single hand.
- 23 The date of the discovery of the Tíree hoard is discussed by Stevenson (1966, viii). For further details see Appendix A, note iii.
- 24 BM reg no: 1851, 6–13, 1.
- 25 One complete arm-ring, which has flattened terminals with stamped ornament on the outer faces, is included in this total as a 'ring-money' variant for it has a plain hoop (*VA* II, 137, LL); not in NMAS.
- 26 A further Iona hoard (from the Nunnery) also contained a gold fillet (Curle 1924, fig 3, upper), but it is excluded here because it contained in addition four silver spoons (*ibid*, figs 1–2), which are of late 12th- or 13th-century date (Curle 1924; Small, Thomas and Wilson 1973, 113).
- 27 The other four hoards are: Kirk o' Banks, Caithness (8); Ring of Brogar, Orkney (9); Skye, no. 1 (1+1); Skye, no. 2 (1+3).
- 28 Plain penannular arm-rings of equal-sided octagonal section at the mid-point of their hoops are excluded by this definition (e.g. Stenberger 1947, pl 23).
- 29 I am most grateful to Mr A M Cubbon, Director of the Manx Museum, for showing me these unpublished rings, and to Professor Michael Dolley for discussing the deposition date of the hoard with me.
- 30 The few examples from Gotland are discussed by Stenberger (1958, 229), but *cp supra*, note 28.
- 31 From England the only examples known are fragments in the Chester coin-hoard (Webster 1953); from Ireland, there are about fifteen examples (including *VA* III, 110–11), and some possible fragments (*ibid*, 108–9), compared with the total of over sixty Hiberno-Viking type arm-rings.
- 32 Douglas (*VA* IV, 48–53); West Nappin (*ibid*, 53; now known to be from a coin-hoard – information from Professor Dolley); Kirk Michael 1972/75 (as yet unpublished). See also Wilson 1974, Appendix B.
- 33 This lost hoard, consisting of four such arm-rings, is known from an unpublished drawing in the National Library of Ireland (Tx 1959: W Betham, *Sketch Book of Antiquities*, p 25).
- 34 I am most grateful to Professor Roy Hodson for this suggestion.
- 35 Graham-Campbell (1976) records a total of 104 hoards, but a further three are now known (Briggs and Graham-Campbell, forthcoming).

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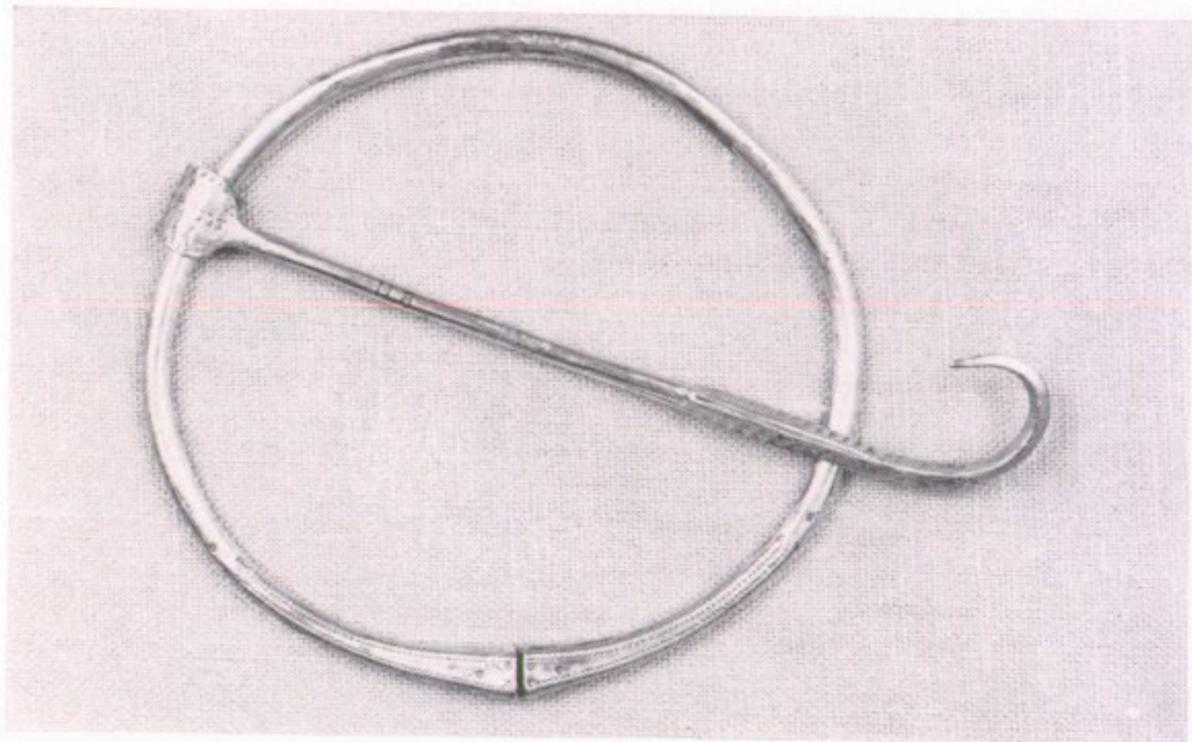
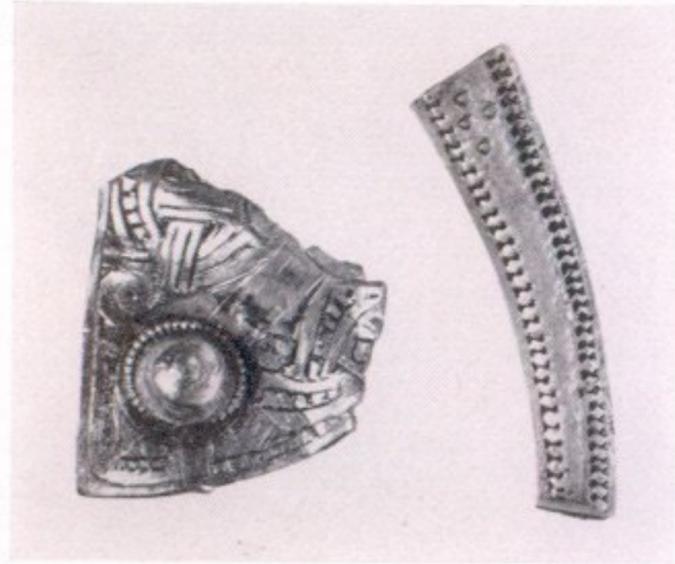
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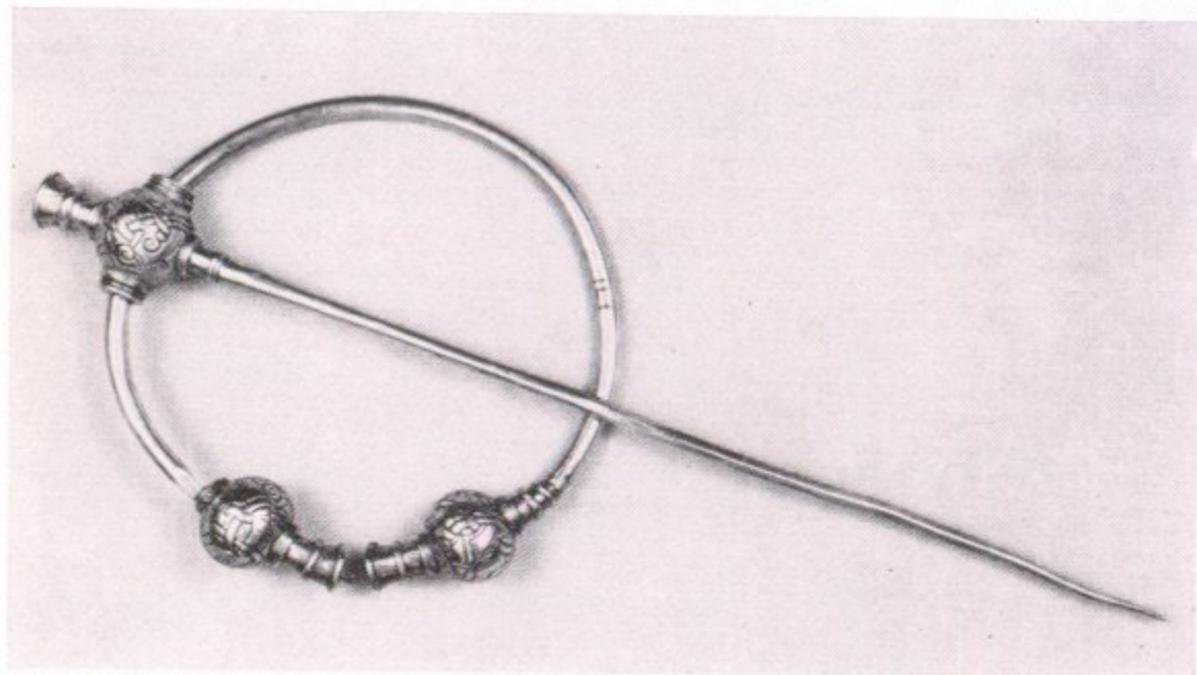
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*Postscript* Mr John Hunter has kindly drawn my attention to the discovery of a piece of plain hack-silver in his recent excavation of House P at the Brough of Birsay, Orkney, which is to be added to Appendix C.

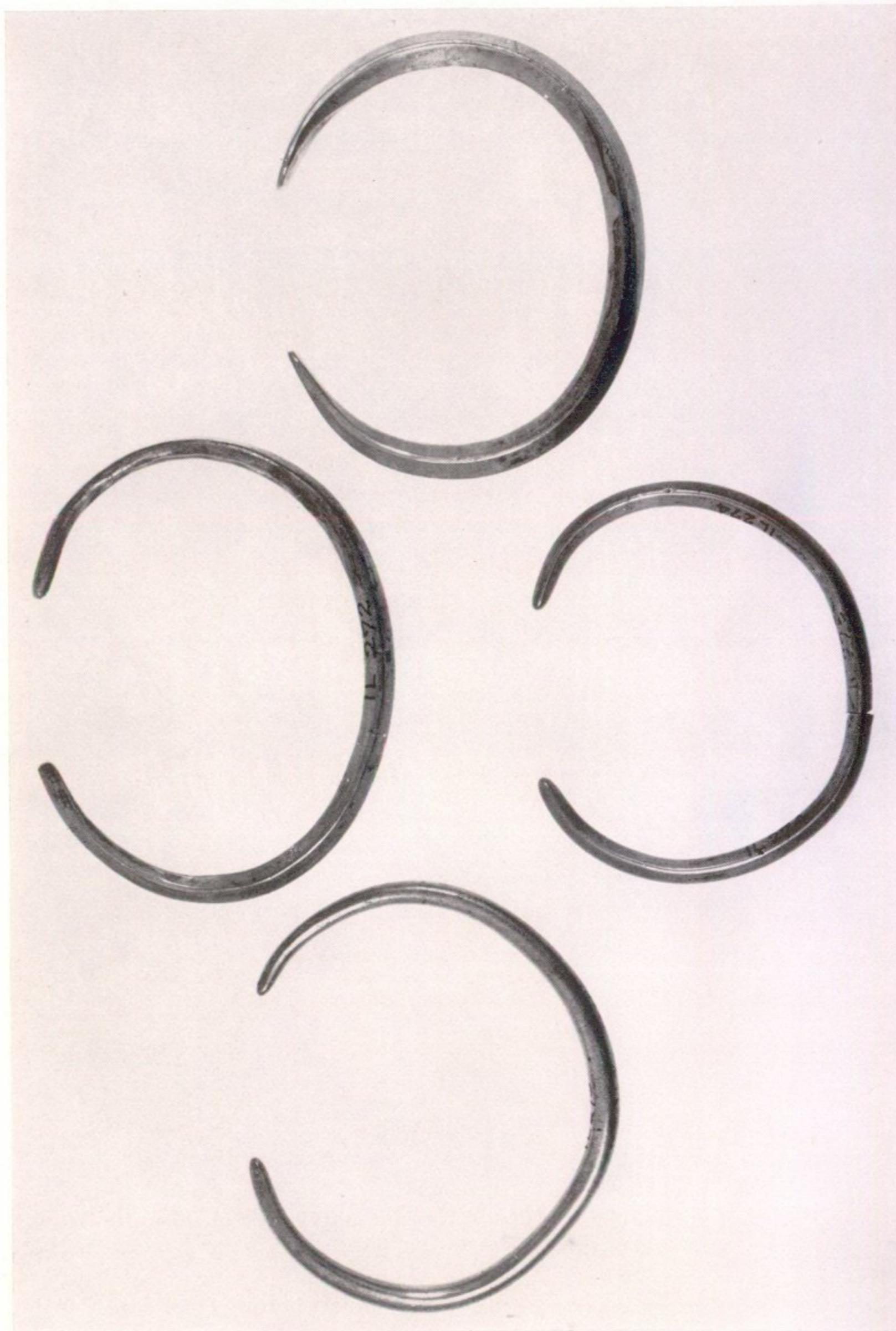
a Penannular brooch fragments from the Storr Rock hoard, Skye (IL 283-4) (scale 1 : 1)



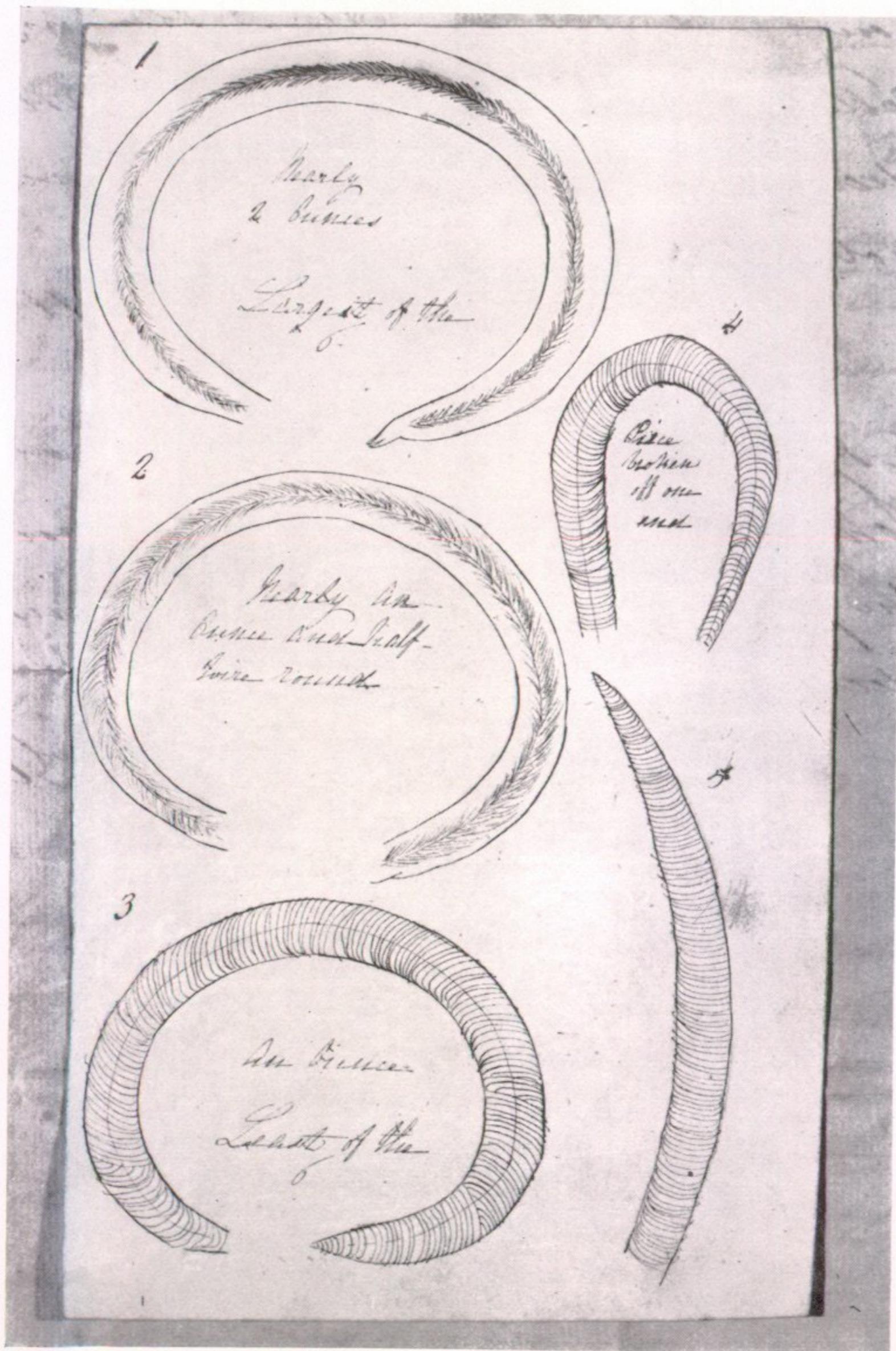
b Penannular brooch from the Skaillog hoard, Orkney (IL 8) (scale 4 : 9)



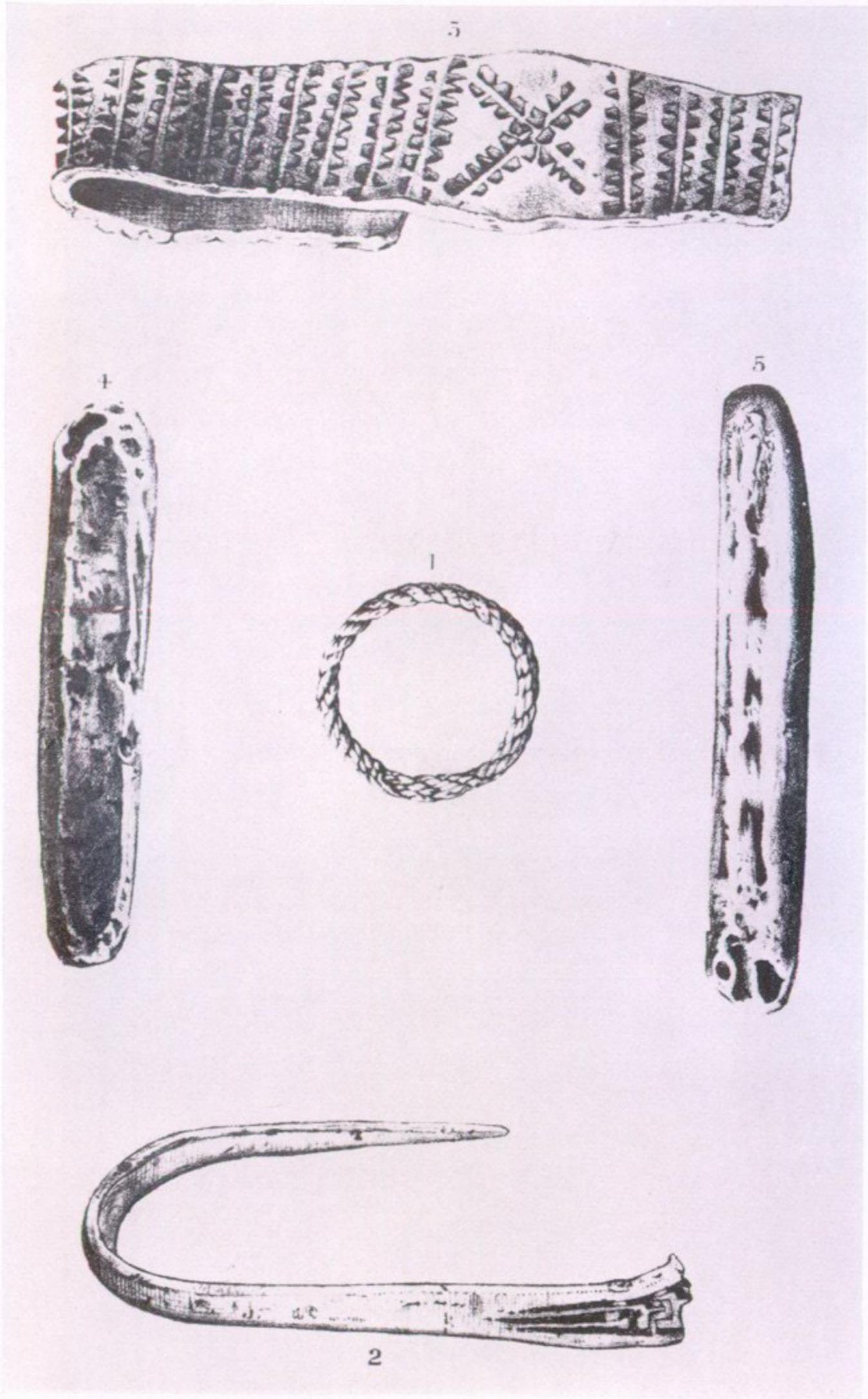
c 'Thistle-brooch' from the Skaillog hoard, Orkney (IL 1) (scale 1 : 4)



The Tarbat hoard, Ross-shire: 'ring-money' (scale 1 : 1)



'Ring-money' from the Garthsbanks hoard, Shetland (scale 1 : 1)



The Gordon hoard, Berwickshire (scale 1 : 1)