fig. 31). They are of course a far less complete guide to settlement than place-names because of the chance nature of survival or discovery.[6] But where there is some disparity between numbers of place-names and occurrence of grave-finds explanations have to be looked for. The few finds from south-west Scotland may be an indication that Scandinavian-speaking settlers in this region had abandoned their pagan ways of burying goods with the dead when they established their settlements along the shores of the Solway Firth and up the river valleys; the one certain pagan grave in the area was found in a churchyard in Kirkcudbright.[7] The movement into this area may have been connected with the period of difficulty experienced by the Norse in Ireland during the early tenth century, by which time the *Gall-Gaedhil* had come under strong Christian influence.[8] North of the Clyde, the west coast and sea lochs form an area where few Viking settlements were established (from the absence of habitative elements in the nomenclature[9]), but where the topographical names of Norse origin reflect a great deal of Norse influence. The few grave-finds from this coastal zone similarly indicate an absence of permanent settlements which probably had a lot to do with the quality of the land. Even in the more densely settled north Scottish mainland grave-finds conform remarkably closely with the location of the best arable land – in north-east Caithness and the Dornoch area of Sutherland (see fig. 31). Geographical considerations are possibly also relevant to the distribution of pagan graves in the Northern Isles, for only two certain pagan graves have been found in Shetland[10] whereas the much larger number of graves in Orkney includes two cemeteries at Westness (Rousay) and Pierowall (Westray).[11] This disparity can be hardly due entirely to chance discovery and suggests that the rich arable lands of Orkney supported a much larger and wealthier population than Shetland, although there may also be other factors influencing this distribution.[12] Chance finds of Norse objects in the rest of Scotland are probably evidence of the death and burial of warriors on raids, although the grave of a Norse woman found near Perth suggests that pagan communities may have settled in this area, which links up with the Scandinavian place-names around the Tay (see fig. 32).[13]

Apart from the evidence of Norse presence of one kind or another, what else can these graves tell us? A great deal about the nature of the people and their society, along with an indication of the date of the Norse invasions and settlements. The vital information they give about the length of time that pagan beliefs persisted and the nature of those beliefs will be discussed in chapter 6 below.

Dating of raids and settlements

Estimates of the date of the Norse settlement of the Northern and Western Isles have fluctuated.[14] The historical evidence shows conclusively, however, that the raids were having an impact around the coasts of Britain and Ireland in the last decade of the eighth century, from which it can be deduced that pirate settlements had been established in the Northern and Western Isles by then. Evidence of individuals with mixed parentage in the fourth decade of the ninth century suggests some mingling of Norse and Celt in the early decades of the

Figure 32. 'Tortoise' brooches from female graves in Lewis and near Errol in Perthshire (*a*: Perth Museum and Art Gallery, photograph: John Watt; *b*: Museum nan Eilean, Stornoway, Lewis).

These pairs of very similar bronze brooches were found in completely different parts of Scandinavian Scotland, and testify to the death and burial of pagan Norse women on (*a*) the north bank of the Tay estuary (said to have been found in the late eighteenth century near Errol, Perthshire) and (*b*) at Valtos on the west coast of the Isle of Lewis, Outer Hebrides.

It is the most common type of early Viking period brooch and dates from the late eighth to late ninth centuries. The circular bronze brooch from the Valtos grave is of Celtic manufacture, as is the pin from a pennanular brooch found very near the site of the original find.

ninth century, and certainly by the middle of the century when the *Gall-Gaedhil* appear in the historical record. Turning to the archaeological evidence, we have first of all the problem of dating Norse graves, which has been done primarily on the typology of objects found within the grave – that is, the style of a sword or an axe, the shape of a brooch, the pattern on a metal plate. This is now recognized to be a rather unreliable method of dating the

burial of the individual concerned, not only because of the uncertainty regarding changing styles and techniques, but also because of the real possibility that the brooch might have been inherited from a grandmother and the sword from an ancestor and thus be very much older than the date of its interment. The likelihood that some of these precious possessions might be heirlooms renders this method of dating the deposition of grave-goods highly uncertain: the Westness brooch, for example, was probably over a century old when it was buried (see fig. 33).[15] Indeed, the axe which was used to carve the runes when a party of Crusaders broke into the prehistoric tomb of Maes Howe in Orkney in the twelfth century had belonged to the rune-writer's great-great-great-grandfather.[16] The majority of graves are most likely to be of ninth-century date, although a few objects appear to be of eighth-century date – a

Figure 33. Grave-goods from a female grave at Westness, Rousay, Orkney (Royal Museum of Scotland).

Apart from the famous Celtic brooch (*middle right*: length 17.4cm, width 6cm), the woman's possessions included the usual pair of 'tortoise' brooches (one illustrated) and a necklace of 40 variegated beads (*centre*) which was probably strung between the two brooches across her breast. Other objects from her adornment were the two bronze strap-ends (*right of necklace*) and the usual comb, found in the majority of female, and male, pagan graves. In addition, this grave included objects associated with the important women's craft of clothmaking: two iron heckles (one illustrated, *top right*), shears (*bottom left*), a plaque of whalebone (*left of necklace*) perhaps used in pressing seams or working leather, and an iron weaving-sword (not shown) for beating down the weft on the loom. In addition there was the blade of a sickle (*top left*) and, next to it, a small bone tool for use in making some textile, perhaps French knitting.

spear-head from Skaill (from which it has been concluded that there may have been settlement in Orkney in the eighth century[17]); a shield-boss and sword from a grave at Lamlash, Arran;[18] and a sword from a grave at Pierowall, Westray.[19] However, the presence of such eighth-century objects does not prove that the burials took place in the eighth century, for we do not know for how long these grave-goods might have been handed down in families. The occasional inclusion of coins among grave-goods may help to date a grave far more closely. Thus the grave excavated at Buckquoy could be dated from a coin of 940–6 to the second half of the tenth century,[20] but the other grave-goods would never have suggested a date as late as the tenth century. Until this particular discovery, it had been thought that very few Scottish Viking graves were likely to date from the tenth century,[21] and it confirms that typology provides a treacherous guide to dating, suggesting also that the pagan period may have been more lengthy in some places than was once thought.

Nowadays, skeletons can be subjected to the scientific method of dating organic materials by measuring their reduced carbon-14 content; but such dates have a margin of error of ±70 years for our period. That is perhaps little better than human error over typology. Thus the recent excavation of a probable Viking burial at Machrins on the island of Colonsay in the Inner Hebrides has produced a carbon-14 estimation of 780 ±70 years – suggesting that eighth-century interments might indeed exist.[22] This island has produced many other grave-finds in the past and was evidently a favoured resort of early raiders and settlers, lying directly on the sailing route through the Inner Hebrides. Graves found at Machrins come from around an area known, perhaps significantly, as Cnoc nan Gall (Hillock of the Foreigners).

The nature of Norse settlements

The grave from Machrins mentioned above had probably been the interment of a woman, although the upper half of the grave had been so disturbed that any brooches or personal adornment which might have been buried with the body had not survived. This grave did not, therefore, possess a pair of the oval ('tortoise') brooches, which are a diagnostic feature of Norse women's graves throughout Norway and the settlements, and provide incontrovertible proof that the Vikings took their wives and daughters overseas with them.[23] These brooches can be placed in a ninth- or tenth-century dating bracket, becoming more elaborate in the later part of the period.[24] There is frequently a third brooch in Norse women's graves, one which is usually based on West European design, and in Scotland of typical pennanular Celtic type, sometimes of great beauty and rarity like the Westness brooch (see fig. 33) or the circular bronze brooch found at Valtos in Lewis (see fig. 32).[25] The graves of wealthier women usually contained utensils, tools and other domestic equipment which they would have used in their daily life around the home, such as the set of cloth-making equipment in one of the Westness graves (see fig. 33).[26] The evidence for the presence of women in the Norse settlements overseas (and from early in the raiding phase, to judge from the Machrins grave) suggests that we are dealing with a colonizing movement. That is, family units were established on certain islands, possession of which had been secured from an early date, and it

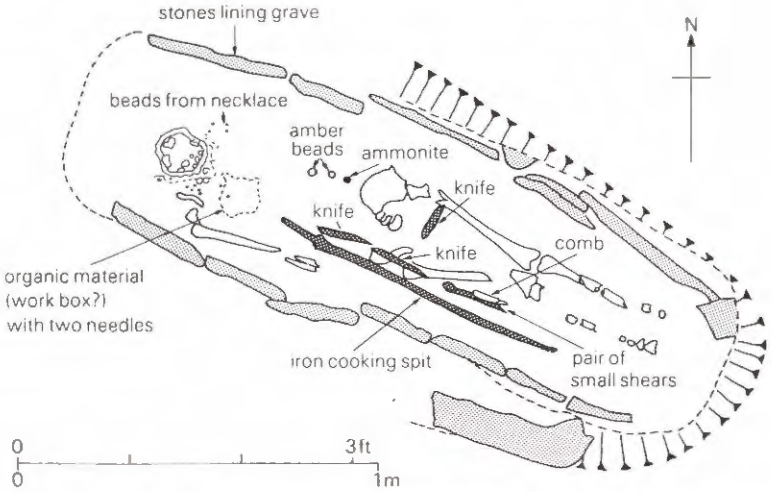


Figure 34. Plan of pagan woman's grave at Peel, Isle of Man (after D.J. Freke, *Peel Castle Excavation Second Interim Report, 1984* (1985), fig. 5a, with additional information kindly supplied by the author).

was not just a movement of landless younger sons. The only exception to this picture is in the Isle of Man, where no pagan Viking woman's grave has yet been recognized, for even though an equipped woman's grave has been recently excavated on St Patrick's Isle at Peel, the lack of any distinctive 'tortoise' brooches suggests that she may have been native rather than Norse (see fig. 34).[27] The very impressive and richly-equipped chieftains' graves which have been excavated on the Isle of Man and on some of the other islands such as Eigg have suggested that the occupation of the Hebrides by the Vikings may have been of rather a different order from the settlement further north (see below) (fig. 35a and b).[28]

Can archaeology provide any support for the evidence of the annals and sagas that Scandinavian expansion in Scotland was founded upon a prolonged period of raiding and piracy?[29] The equipment of the men's graves, which contain a weapon, either sword, spear, axe and shield, or combination of these, is sufficient witness to the important part fighting and the martial arts had played in these men's lives throughout the pagan period.[30] So long as the colonists continued to bury these objects with their dead, we must assume that such equipment had been of significance in the lives of the settlers. No study has attempted to suggest that emphasis on weapons declines in tenth-century graves. However, if direct evidence of their raids is looked for in the archaeological record, it is very difficult to find. No settlement site yet excavated shows signs of burning at the native-Norse interface. Even at Iona, which is on record as having been destroyed on several occasions, it is impossible to prove whether burned layers are a result of Norse attack or domestic conflagration.[31]

It has been said of the Norse colonists that 'they may have been warrior-adventurers at heart ... but their chief interest was in the acquisition and

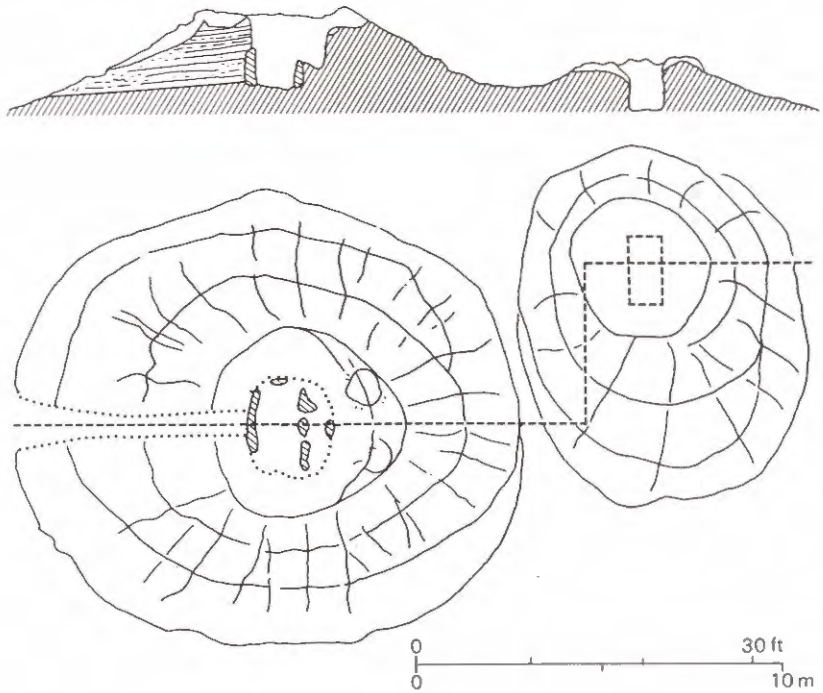
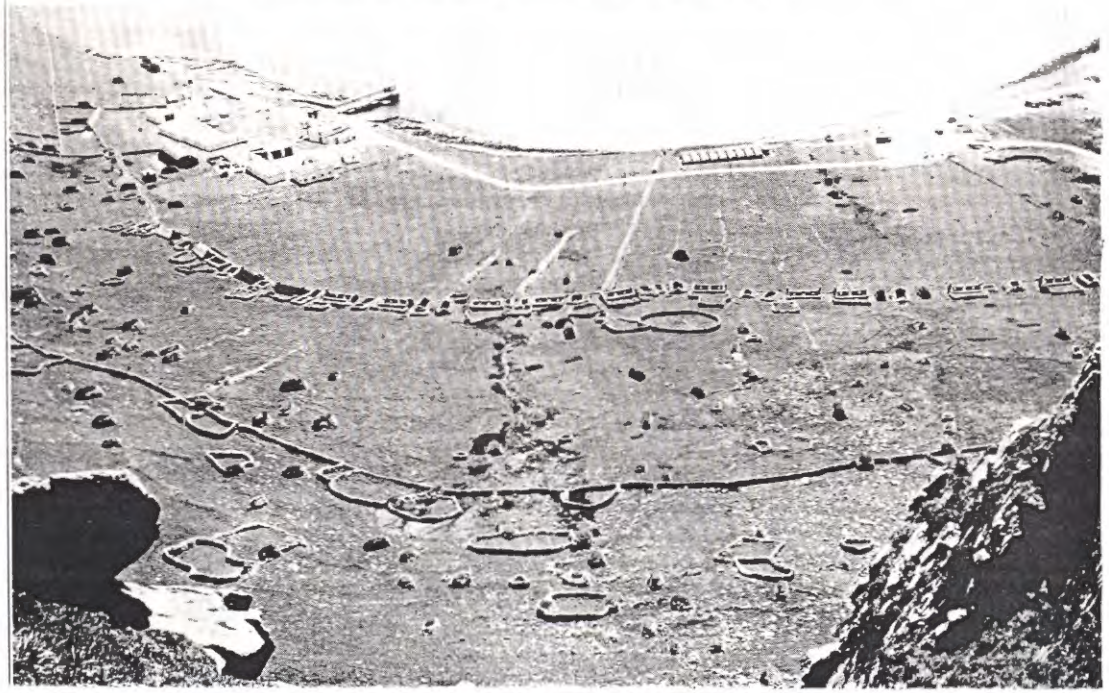


Figure 35. (*above*) Sword-hilt (Royal Museum of Scotland) and (*below*) plan of grave-mounds on the island of Eigg, Inner Hebrides (based on drawing by N. MacPherson, 'Notes on antiquities from the island of Eigg', *PSAS*, xii, 1876–8, 590ff).

The magnificent bronze sword-hilt was found in one of three burials on Eigg; it dates from the early Viking period (late eighth–late ninth centuries); length 18.4cm. The plans show two of the burial mounds, all of which contained richly furnished Viking warrior graves. They may have been re-used prehistoric cairns.

Figure 36. Views of Village Bay, St Kilda (photographs: Commander E.F. Spragge).

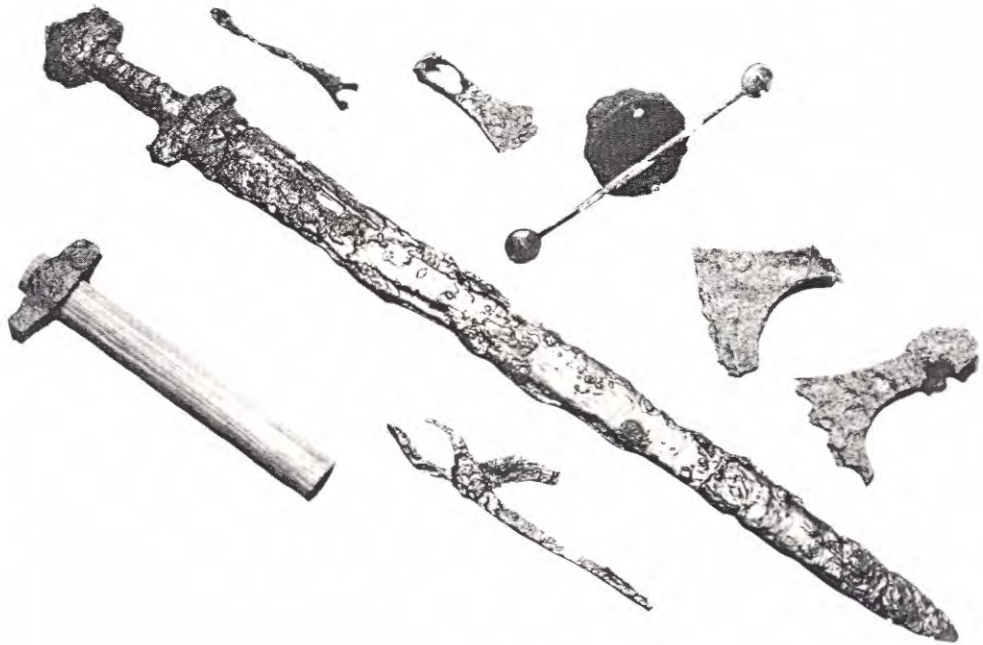
Village Bay is on Hirta (ON *?hjǫrtir* = stags), the main island of the St Kilda group, which lies 40 miles west of North Uist, Outer Hebrides. Although all structural remains visible today are of a later period, the Norse settlement is likely to have been in the location of Village Bay.



cultivation of land.'[32] The tools found in the graves certainly attest to another, more peaceful, side of the emigrants' way of life. Indeed the evidence for settlement by Norse colonists in that remotest of the Hebridean islands, St Kilda,[33] brings into sharp focus the need for land which must have impelled Norse men and women to seek out such an inhospitable location for their new home (see fig. 36). These remarkable emigrants used tools either for the business of farming the lands they settled or of carrying on some profession such as that of smith, for both agricultural implements and smithying tools have been found in men's graves (see fig. 37). If weapons and tools are found in the same grave then both can be understood to have been of importance to the dead owner. Here it may be possible to distinguish between the graves of the Orkney settlers and those in the West, particularly on Man, where few recognizable agricultural implements have been found, and the overwhelming impression of the excavated Manx graves is of a warrior caste.[34] This distinction between the Orkney grave material and the Hebridean was strongly emphasized by a Norwegian archaeologist who argued that the Orkney settlers were only 'peaceful, peasant colonists'.[35] It is very difficult to quantify such scattered and often poorly preserved material, but the grave-finds from the Inner Hebrides do appear to represent an aristocratic class of Norsemen who had taken up residence in the ninth century.[36] The Orkney material appears to be more broadly based, and extensive in time.

Figure 37. Weapons and smithying tools from a pagan male grave at Ballinaby, Islay, South Hebrides (Royal Museum of Scotland).

The mixture of weapons (sword, axe-heads, shield-boss and mounting for handle – *top, middle*) and smithying-tools (blunt-ended hammer, forge-tongs, *bottom*, and possible fragment of iron cauldron handle, *top left*) illustrate the diversity of the Viking settlers' way of life.



What about the role of the Viking as trader? Can the grave-material help our understanding of this aspect of his life-style? Unfortunately, we have no means of knowing how goods of foreign provenance and in particular 'insular' items (that is, those of Celtic origin) came to be in the possession of the dead settler or of his cousins at home in Norway. The fine pieces of gold and silver which may once have adorned the shrines of the holy saints, or the books and ecclesiastical objects of the monks who guarded those shrines could never have been acquired legitimately. But on the other hand, the Celtic brooches and ring-headed pins appear to have become a normal part of the Vikings' dress adornment very quickly, suggesting patronage of native craftsmen and legal purchase.[37] There are fewer objects of Celtic provenance in the Orkney graves than in the graves of Norway, from which it has been deduced that the Vikings liked to have some souvenir of their western voyage to take back home.[38] In this respect there appears to be another contrast between Orkney and the west, for the graves from the Hebrides, and particularly Man, have produced Celtic material showing strong connections with Irish and Scottish culture, which may well have resulted from inter-marriage or trade. Nonetheless beautiful objects of Irish/Scottish manufacture like the Westness pin must also have been highly valued in Orkney. If the graves of the early earls and their closest followers could be found in Orkney then the disparity with the Hebridean material in the matter of objects of Celtic workmanship might not be so obvious.

Another contrast between the grave material in the west and the north is worth noting; that is the presence in western graves of weighing scales. These were used for weighing precious metals – gold or silver – in exact quantities and are a very important feature of grave furniture of the Viking Age.[39]It is usually supposed that the weighing was done as part of a trading transaction and that, for instance, the man whose scales and weights form part of the impressive Kiloran Bay grave equipment, found on the island of Colonsay, was a Norse merchant.[40] But he also possessed a sword, an axe, a shield and a spear and arrowheads (see fig. 38). Was he, therefore, an armed merchant, preparing to defend himself while on his trading voyages around the British Isles? If, however, the presence of weights and scales were regarded as the essential equipment of the warrior chief who needed to weigh out precious metals when distributing booty to his followers,[41] then this grave would begin to look more like the final resting-place of a Viking chieftain who had based himself on this favoured island of the Inner Hebrides from where he carried out his raiding and 'trading' activities. Such alternative explanations which can be put forward illustrate some of the inherent difficulties of interpreting archaeological material.

But whatever the true interpretation, the infrequency of such discoveries in Orkney, in contrast to the number found in the Hebrides,[42] further suggests a broad difference in the nature of the Norse establishments in the Northern and Western Isles. The Orkneys were dominated by the earls and their following – chieftains indeed – who controlled the body of Norse settlers. But the bulk of the settlers took over the rich farming lands of the Pictish population which provided them with sufficient resources (and slave labour) to allow them to live primarily as landowners. The earls continued to require military service which would have necessitated the settlers' maintainance of military equip-

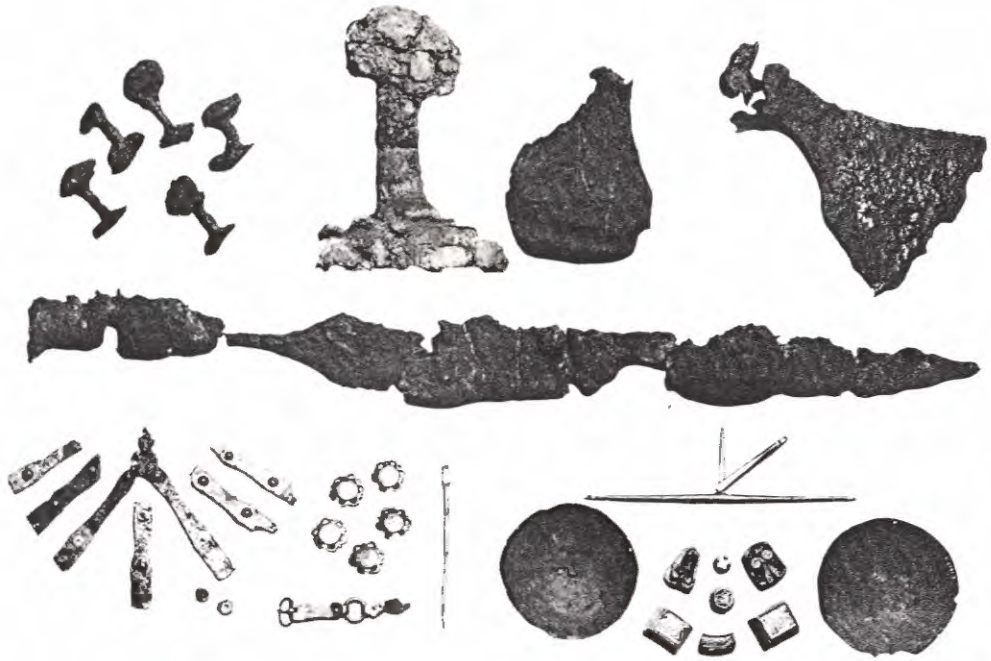


Figure 38. Some of the grave-goods from a richly equipped male grave at Kiloran Bay, Colonsay, South Hebrides (Royal Museum of Scotland).
The man was buried in a boat (rivets, *top left*) and his horse was sacrificed for interment with him (bronze harness-mounting, *bottom left*). The full complement of weapons included sword, spear, axe, shield (boss, *second from right, top*) and arrowheads (not illustrated). Among his other possessions were Anglo-Saxon coins (mid-ninth century) and the fine set of bronze scales, balance-beam and small leaden weights (*bottom right*) – the latter ornamented with scraps of Celtic or Anglo-Saxon metalwork, two of which are decorated with enamel; for discussion of the use for such sets of scales see p. 126 above.

ment and continuation of practice training for war expeditions or reprisal raids. These relics of war accompanied them in their graves along with agricultural implements. In the Hebrides, trade and raiding were probably more fundamental to the success of the Norse settlers in an environment which could not support large numbers of farmers and which it was difficult for one family to dominate politically. Involvement in the lucrative trading world of the Norse in Ireland was therefore very important to the Hebridean settlers, some of whom formed themselves into the renegade band which went under the name of *Gall-Gaedhil*.[43] They prospered in the turbulent Norse-Irish world until a revival of Irish solidarity forced them out of the Hebrides to look for emptier spaces in the North Atlantic.[44] The archaeological material found in graves of the Western and Northern Isles is a broad indicator of the rather different nature and status of the Gaelicized petty chieftains of the west as compared with the Norse farmers of Orkney.

HOARDS

Although our knowledge of Viking trade in the Scandinavian settlements of the ninth century is limited to what can be gleaned from grave material, this is supplemented from the tenth century onwards by the remarkable evidence of silver hoards. The practice of hoarding coins and bullion is well known from Scandinavia, and this method of protecting your valuables was also used in the west as *Jarls' Saga* tells us: 'People were now so very much afraid of him [Swein Asleifsson] in the Hebrides, that they buried all their movable property in the earth or under heaps of stones.'[45] Recent studies of the silver hoards of Scotland and Ireland, and of the Isle of Man (with the associated numismatic research), have revolutionized our knowledge of this aspect of Norse studies.[46] Moreover, these hoards may relate to military or political events, for as the above extract suggests, in times of danger or uncertainty, people buried their treasured valuables in the ground.[47] Even so, it is not absolutely clear that peaks of hoarding activity must be associated with political disturbance, although it may be tempting to look to the known political circumstances for guidance as to the reason for the deposition of coin hoards. It is not unlikely that valuables were buried at any time for safe-keeping and dug up only when required. In which case the numbers of hoards could be an indication of periods of maximum wealth, and perhaps, active trading.[48] However, failure to recover buried wealth does suggest (as is normally the interpretation of the St Ninian's Isle hoard[49]) a situation of unrest.

Hoards buried by the Vikings are nearly always recognizable because they include coins of many countries, ingots of a particular shape, ornaments with distinctive Viking Age art styles, and, above all, 'hack silver' (cut-up fragments of ingots and ornaments) and 'ring-money' (silver rings which served as a form of currency among the Norse settlers of Scotland). In fact, Viking hoards are distinctive by the eclectic nature of their contents; they include silver in any shape or form and sometimes in huge amounts. The largest and finest hoard to be found in Scotland is from the Bay of Skaill, in Orkney, which probably weighed about 8kg – similar in size to the largest Viking Age silver hoards found in Scandinavia.[50] It included over 100 items, with rather few coins among them, the most famous objects being the magnificent 'ball-type' brooches of which there were at least 16 (see fig. 39).[51]

Distribution

The Scottish material is only one part of the whole west Norse pattern of hoard deposition, and the disparity between the numbers and types of hoards found in Ireland and in Scotland tells us that the economic situation in the two areas must have been very different (see fig. 40). The Norse colonies in Scotland may not have been so wealthy as the trading ports in Ireland; nonetheless in comparison with the rest of Scotland the Scandinavian settlements had the greatest wealth in the tenth and early eleventh centuries and even had a type of currency in the form of ring-money.[52] Out of a total of about 40 known Scottish hoards, 31 of them have a Scandinavian character (i.e. including hack silver, rings or ingots). The great majority of these are scattered throughout the

Figure 39. Selection of objects from the Skaill hoard, Orkney (Royal Museum of Scotland).

Some of the silver arm-rings, brooches, necklets and coins which form part of the impressive hoard found at Skaill, West Mainland, Orkney, in the middle of the nineteenth century, and which was deposited around the middle of the tenth century. The small wrist- or arm-rings (*upper left, upper right and bottom*) are examples of silver 'ring-money'; see pp. 133–4 below. Diameter of thistle-brooch (*top right*) 16cm.

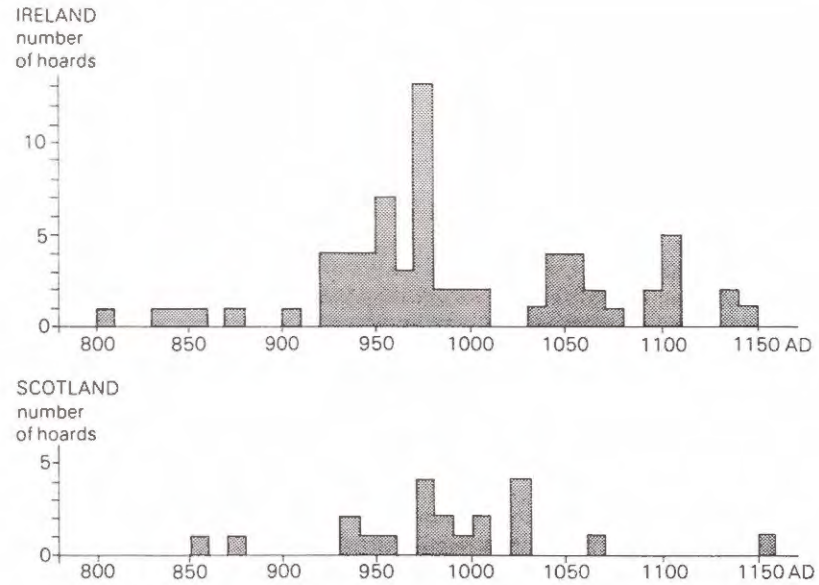


Figure 40. Deposition of silver coin-hoards of Scotland and Ireland, by decades (c.800–1170) (after J. Graham-Campbell, 'Viking-Age silver and gold hoards from Scotland', *PSAS*, cvii, 1975–6, fig. 2).

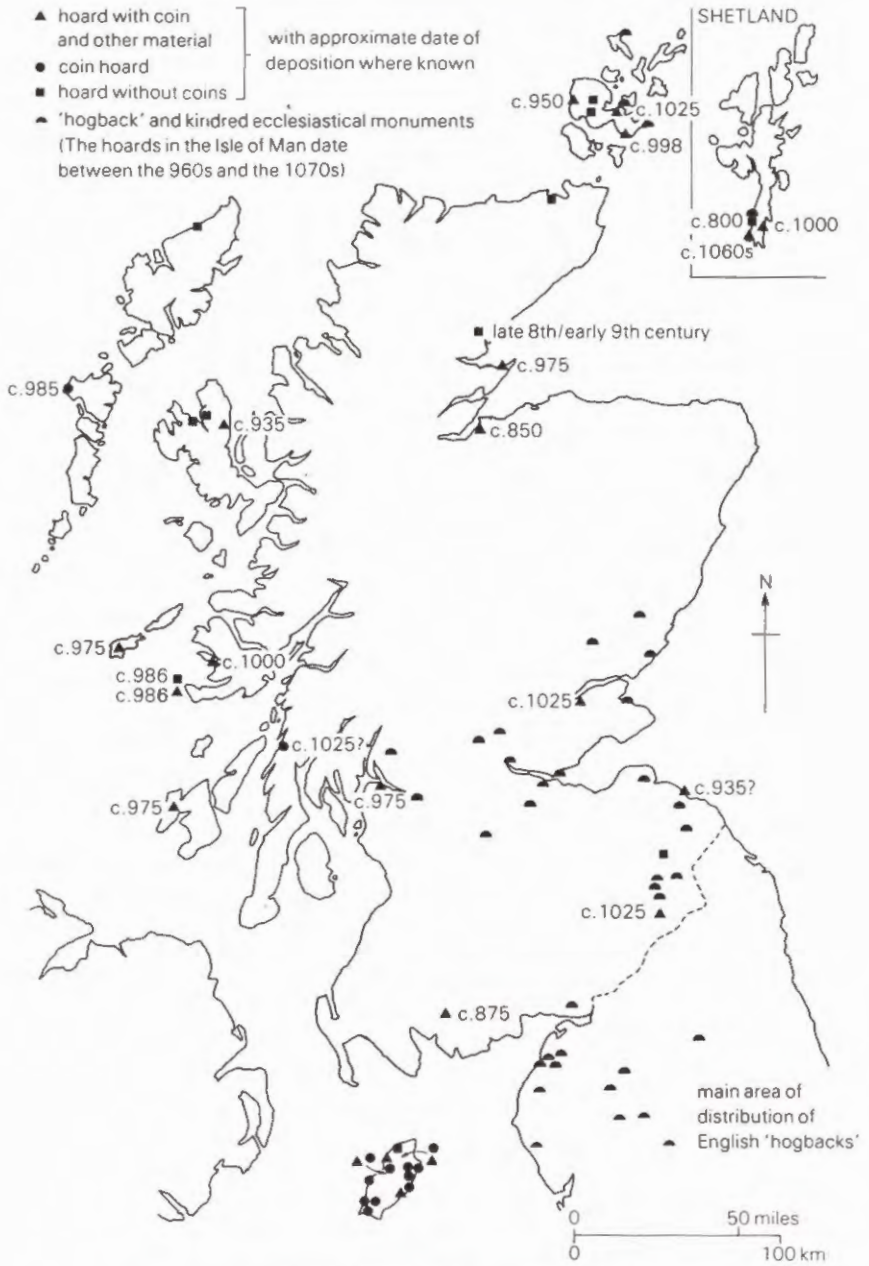


Figure 41. Distribution of Scottish silver hoards and hogback tombstones (prepared for publication in new edition of *Historical Atlas of Scotland*, after J. Graham-Campbell, 'Viking-Age silver and gold hoards from Scotland', *PSAS*, cvii, 1975–6; *idem*, 'The Viking-age hoards of the Isle of Man', in *The Viking Age in the Isle of Man, Ninth Viking Congress*, 1983; and J.T. Lang, 'Hogback monuments in Scotland', *PSAS*, cv, 1972–4).

islands and coastal areas known from other evidence to have been settled by the Norse, while there are an additional 20 hoards from the Isle of Man. They provide tangible evidence of economic activity along the coastal routes and waterways and give further coherence to the discrete political units of Norse Scotland (see fig. 41).

The few hoards found in non-Scandinavian parts of Scotland which are of Scandinavian type were most probably hidden by Vikings passing through those parts of Scotland. They can therefore be used as evidence of the movements of Scandinavians through southern Scotland which are recorded in the historical sources. The Talnotrie hoard (Kirkcudbrightshire) is one of the few clearly definable Viking hoards of the ninth century found anywhere in Britain.[53] It has been specifically associated with the campaigns of Ivar the Boneless in 870–1 when Dumbarton was captured, or perhaps with Halfdan's ravaging amongst the Picts and Strathclyde Britons of 874–5. The Gordon hoard (Berwickshire) can be linked with the plundering of Lowland Scotland by Irish-Norse after they were expelled from Dublin in 902.[54] The Jedburgh and Lindores hoards dated to c.1025 have been associated with the activities of King Cnut in Scotland (although there seems no reason why the Lindores hoard at any rate might not relate to the conquests of Earl Thorfinn which are supposed to have reached as far south as Fife). Even the native hoards, that is Pictish hoards of ninth-century date, can be linked up with Viking activity for they provide evidence of disturbance resulting probably from fear of plunder; most probably in the case of the St Ninian's Isle treasure (Shetland) and the Rogart hoard (Sutherland); possibly also in the case of the Croy hoard (Inverness-shire).[55] If the Vikings were prone to hiding their silver in troubled times, it is likely that so also were the natives when the Vikings were about.

In this context, it is relevant to mention some stray items found in Scotland of Celtic manufacture but with runic inscriptions on them, from which we know that the lost object had at one time been in the possession of someone of Norse speech. The most famous of these is the Hunterston brooch,[56] found near Largs in Ayrshire (fig. 42a); and the most enigmatic, the bronze crescent-shaped plate found near Monifieth on the Tay estuary (now lost: fig. 42b).[57] The former fits perfectly into the mixed Norse-Celtic world of Western Scotland, for the owner had the Celtic name Melbrigda (scratched in Norse runes); the latter object, of Pictish manufacture, had apparently been owned by a Norseman called Grimketil. Both provide tangible evidence of the interpenetration of Norse and Celtic worlds in localities where the Scandinavian presence is proven but faint.

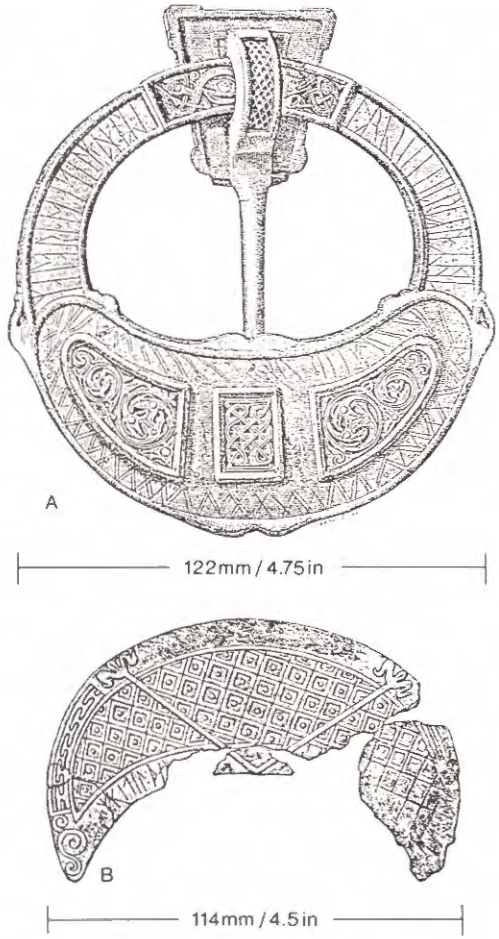
Dating

A comparison of the chronology of the deposition of the coin-hoards of Scotland and Ireland brings out strongly the importance of the period from the mid-tenth to the early eleventh centuries. The small number of ninth-century hoards must indicate that little silver was in circulation at that time.[58] It cannot be taken as indicating peaceful times, when the historical record proves otherwise. The sudden increase in the use of silver is a tenth-century phenomenon. The number of hoards found in Ireland dated to the period

Figure 42. Runic inscriptions on (*a*) the Hunterston brooch and (*b*) the Monifieth plate (drawings from J. Anderson, *Scotland in Early Christian Times*, 1881, figs. 3 and 34).

The Hunterston brooch (diameter 122mm) is one of the most elaborate and largest of the famous Celtic brooches, and possibly also the earliest known (?AD 700). It was therefore of considerable age when lost, and an heirloom no doubt when acquired by 'Melbrigða' whose name was scratched in Norse runes round the hoop (reverse) in the tenth century.

The enigmatic bronze crescent-shaped plate (diameter 114mm), found at the Laws, Monifieth, on the Tay estuary in the eighteenth century but now lost, is decorated with typical Pictish designs, the V-rod symbol on one face and double-disc and Z-rod symbols on the other (not shown). It came into the hand of a (Norse) Viking whose name (?Grimketil) was scratched in runes on the bottom left border. He probably acquired – and lost – it in the Pictish heartland around the river Tay, further evidence for Viking movement along the coastal waters of south-east Scotland.



c.920–1010 dramatically demonstrates the importance of the new trading establishments founded by the Norse around the Irish coasts, but the Scottish evidence also shows a similar change in the same period, although on a far smaller scale.[59] Likewise in the Isle of Man there are hardly any coin-hoards until the second half of the tenth century when a number were deposited.[60] This proliferation of hoards, as well as the beginnings of a Hiberno-Manx coinage (which was possibly minted in the Isle of Man) is evidence of an increased amount of commercial activity in the island in the late tenth and throughout the eleventh centuries.[61] The development of this coinage in the eleventh century has also suggested closer ties between Man and Ireland, and the breaking of links with the earldom of Orkney.[62]

The quantity of hoards deposited in Scandinavian Scotland in the period 975–1025 coincides with the period when Earl Sigurd was extending his sway over the Hebrides, and including the aftermath of the battle of Clontarf. The disruption after the battle in which so many political leaders were killed is well illustrated by events in *Njal's Saga*; Flosi was with Earl Gilli in the Hebrides when they heard news of the battle from Hrafn the Red, and Flosi decided to sail south, so 'the earl told him to do as he wished; he gave Flosi a ship, and anything else they needed, as well as *a load of silver*' (my italics).[63] In uncertain circumstances such as these it is understandable that large amounts of silver would come to be buried in the ground, and sometimes not be collected again by the recipients or owners. A hoard found near the Abbey in Iona has been associated with a recorded raid on the island in 986.[64] In the case of the Caldale hoard found near Kirkwall and dated to c.1025 we can look to the political situation in the earldom during the rule of Earl Einar (1013–1024), when 'many were the men of mark who fled [from their lands] in the Orkneys'[65] through his tyranny. This might well be the occasion when a Norseman's worldly wealth would be secreted in the ground to be safe from the grasping earl, and this particular hoard was actually located in the part of the island thought to have been the 'trithing' (third division) belonging to Earl Einar.[66] Thereafter there are very few hoards in Orkney or West Scotland to suggest continuing disturbance during the period when Earls Thorfinn and Rognvald Brusisson were establishing their power in north and west, although the decades in which the greatest number of hoards were deposited in the Isle of Man are the 1030s and 1040s.[67] Can this be seen as evidence for the struggle by Thorfinn and Rognvald to assert Orcadian control in the Irish Sea in the period after the abdication of King Sitric of Dublin in 1035?[68] We have to remember the warning that it is 'often dangerous to try and fit the dates of the deposition of coin hoards into the historical record'.[69]

Ring-money

In one particular respect the Scottish hoards of the late tenth and early eleventh centuries are exceedingly significant, and that is for the inclusion among the hack silver and coins of examples of 'ring-money'. These silver rings which were probably worn as adornment on the arm or wrist (see fig. 39) also appear to have been used as a form of currency in Scotland from the mid-tenth until at least the mid-eleventh century; they relate to the ounce of 24

grams.[70] Examples of these arm-rings are known also in Norway, but their distribution has suggested that they were manufactured in Scotland by the Viking colonists.[71] They were being used at a time when the Norse in Ireland were not only using coins, but also minting them. The incidence of such rings in hoards in the Isle of Man indicates that they may have been used as a form of currency there too, suggesting continued contacts between Man and Norse Scotland during the eleventh century.[72] New hoards may change the known distribution of ring-money and make new explanations necessary. There is, however, a possibility that ring-money was linked with the assessment system based on the ounce, found in the Northern and Western Isles.[73] The fact that the use of this ring-currency spans the period when the Orkney earls were at the height of their power in the north and west suggests that it was they who had the political authority to introduce such a standardized metal currency in the earldom.

Certainly this type of non-coined currency seems to have kept out the Hiberno-Norse coins of Ireland for there is a total absence of eleventh-century Hiberno-Norse coins from Scottish hoards[74] (though such coins may, of course, have been melted down and converted into ring-money).[75] The kings of Dublin started minting their own coinage in 997 and their coinage was strongly influenced by Anglo-Saxon example. The 'ring-money' was also a state currency but of a quite different type. The Norse traders in Ireland similarly had used an arm-ring type of currency, at an earlier date, but this was probably originally of Danish manufacture, although developed in Ireland.[76] When this Hiberno-Norse ring-money was abandoned by the Norse traders in Ireland, ring-money of a different type went on being used in the Irish Sea area, possibly manufactured by the Norse in Scotland. Hoard evidence suggests it was used right through the period of Earl Thorfinn's rule. Its existence points to an economic and trading system in the north which had no need of coins and which was independent to some extent of the Irish trading world.

Trade

It has been claimed on the basis of the Scottish hoard material that 'overseas trade, other than in basic commodities, did not play a central part in the economic life of the Norse settlers in Scotland.'[77] Yet the amount of silver which was circulating in Norse Scotland, even if not in coined form, testifies to the wealth of these communities. It could have been acquired from the Isle of Man where silver occurs in considerable quantities. But the settlements around the coasts of north and west Scotland were geographically very well placed to control and benefit financially from the trade which passed along that route to and from Dublin.[78] This chain of islands and sea lanes provided mariners with the sort of extended coastline with which they were very familiar in Norway, and an easily navigable way to reach Britain and the Irish Sea. It continued to be the route used by settlers or their descendants when they were waving the trader's flag. The exhortation by the chieftain Brynjolv of Urland to his son Bjorn in *Egil's Saga* to go south to Dublin is frequently quoted in books on the Vikings; what is not always mentioned is that Bjorn wanted a longship to go a-viking but that his father would only give him a merchant-

ship 'and wares withal' for a trading expedition.[79] It can be predicted what these wares would have been: walrus ivory, furs or hides, from which ship's cables could be made; timber, dried fish and fish products such as oil; iron, whetstones or soapstone vessels; maybe antlers for the manufacture of combs or birds' feathers for eiderdowns. The excavations at Dublin have shown what an important entrepôt it was for trade, as well as being a large manufacturing centre.[80]

There is no evidence that any such urban complex existed in the Northern or Western Isles as early as the founding of Dublin, although Kirkwall may have functioned as a market long before it is first mentioned in *Jarls' Saga* in connection with events in 1047.[81] It is certainly likely that there were trading stations in Orkney, of which Pierowall in Westray, where a substantial number of pagan graves has been uncovered, may have been one.[82] Considering its geographical situation and natural harbour (it is called Hǫfn [haven] in the *Jarls' Saga*) Pierowall would have been a useful port of call for ships sailing down the west side of the Orkney Islands, which was probably the preferred sailing route.[83] The Northern Isles were at the crossing of the trade route from Dublin to Norway with the route from Britain to the North Atlantic, and are likely to have provided important refuge points and revictualling stops in the many sheltered harbours and sounds. Their nodal position made them the obvious place for merchants to take on fresh supplies or to sell cargo; it would also enable the earls to exact some form of toll from merchant ships – if not plundering them – while they passed.[84] Given the grain production of Orkney also (possibly surplus to local needs in most years) then the islands had a valuable export for less fertile parts of the Norse world. We hear incidentally about such trade from a thirteenth-century saga which tells of the quarrel between an Orcadian, Thorkell Walrus, and Snorri Sturlason with whom Thorkell spent the winter in Iceland. The two quarrelled over the price of flour which Thorkell had brought in his ship from Orkney.[85] When traded to Norway, such a cargo would be exchanged in particular for timber, for which there is written evidence from the later Middle Ages.[86] If trading of this kind had taken place in earlier centuries, it would help to explain the amassing of the sort of wealth in Orkney which is evident from the Burray and Skaill hoards (1.9kg and 7–8kg respectively). The wealth of the sea was probably also exploited, as initial research at Freswick in Caithness is beginning to reveal.[87]

The number of hoards found in the Western Isles also indicates a comparable prosperity, and one which is likely to have derived more from passing trade than from agriculture. That the later Manx kings could exact a well-regulated toll is illustrated in a saga account of the journey of Gudmund, bishop-elect of Holar in 1207, in a merchant ship from Iceland to Norway, when the ship was blown off course and landed in the Outer Hebrides. The king's bailiff claimed land-dues 'according as the laws of the Hebrides required', which were 100 lengths of wadmell (cloth) for each man in the ship (or a monetary equivalent).[88] Comments on the 'irregular and ill-organised trade of the Western area'[89] in comparison with the eastern Viking world are perhaps unjustly deprecating about the effectiveness of the trading and commercial methods practised in the west.

Trade apart, however, the main source of wealth in Scandinavian Scotland in the period 975–1025 was probably the rewards of service with earls who still