

A Neglected Viking Burial with Beads from Kilmainham, Dublin, Discovered in 1847

By C. S. BRIGGS

National Monuments Record, Royal Commission on Ancient and Historical Monuments (Wales)

With contributions by

MARGARET GUIDO *and* AIDAN WALSH

THE DISCOVERY of a Viking-Age burial in the Kilmainham-Islandbridge cemetery, Dublin, comprising skeleton, spear, sword-fragments and beads, is described from antiquarian MSS sources. The surviving pieces are detailed and the deposit tentatively dated to the late 9th or early 10th century. The grave-goods indicate one, possibly two, burials, one female. A brief survey of similar pagan burials in the British Isles and a close examination of this one would suggest a mixed Irish-Scandinavian cultural milieu for it.

INTRODUCTION

In Ireland, Viking burials are known from about a dozen locations outside Dublin.¹ Like those found within the modern city limits in the Kilmainham-Islandbridge cemetery area, most are best documented from the 19th-century, or from earlier antiquarian, sources. Few graves have been described in any detail and the grave-goods, though summarily listed in 1910² and 1940,³ arguably among the most important groups outside Scandinavia, remain largely unstudied, and even to some degree unconserved.

Although occasional Viking burials were discovered before 1840, it was around and shortly after this date that urban expansion, including the construction of a railway station and line taking traffic out of the city to the west, created large-scale earth-moving (Fig. 1). This brought to light skeletons and iron weapons, generally considered at the time to have had more in common with the Danes than the native Irish.⁴

Records of these discoveries are poor, the museum registers and the Minute Books of the Royal Irish Academy's Committee on Antiquities, together with the known antiquarian correspondence of the period, apparently conspiring together in their silence and suggesting little beyond the fact that artefacts originating at

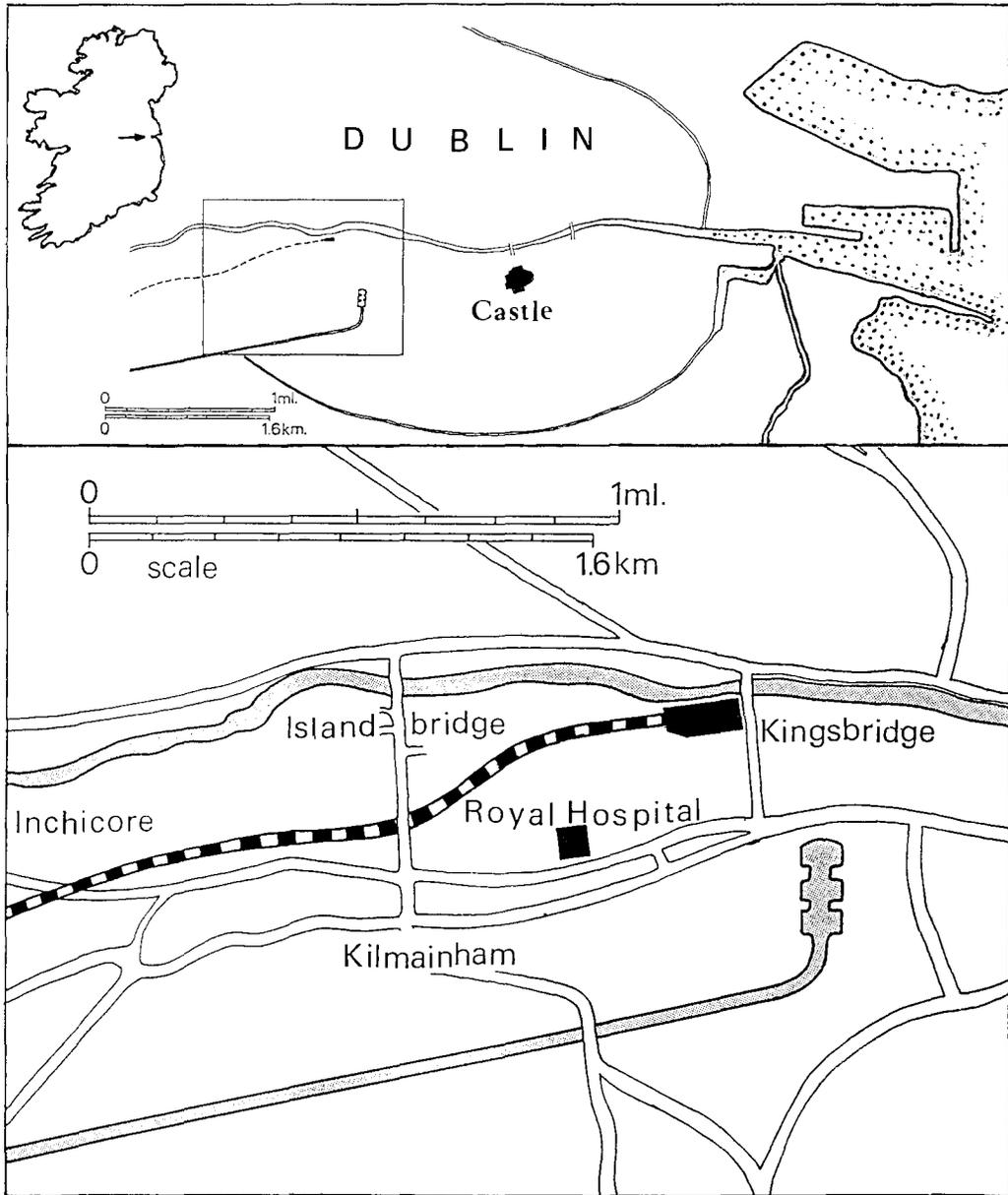


FIG. 1

Sketch plan showing present location of Kingsbridge Station, Dublin

Kilmainham were being marketed, and on occasion, more fortunately, were being presented by the railway company to the Academy.⁵

During the 1860s, further discoveries were occasioned by gravel-digging from the old R. Liffey channel 'in the fields sloping down from the ridge of Inchicore to the Liffey and to the SW. of the village of Islandbridge'.⁶ Again, first-hand observations on site were not made, although Wilde made every effort to describe collectively all the finds known to him in 1866.

A final period of development took place in this general area during the 1930s, when landscaping was undertaken to create the Memorial Park. Five burials came to light at this time, but these were not properly recorded and only briefly published,⁷ and their relative dispositions are not now understood.⁸

With the aid of Wilde's *Catalogue* of 1857⁹ it is still possible to separate some Kilmainham from Islandbridge finds, though even in Wakeman's day¹⁰ some thirty years later it was not found possible to distinguish many of the iron artefacts one from the other, and many finds remain, and always will remain, loosely attributed 'Islandbridge-Kilmainham'. It becomes the more desirable to provenance these finds precisely when it is realized that the ill-defined cemetery area is over one mile (1.6 km) long, and was probably connected, as suggested most recently by Mr J. Graham-Campbell,¹¹ with a nucleus of 9th-/10th-century settlement, as yet unlocated though probably lying between if not beneath the axis of the Guinness Brewery and the Royal Hospital, Kilmainham.¹²

More precise evidence of the disposition of grave-groups within the cemetery may at some future date be ascertained through a systematic investigation of railway records, local newspapers, or the rediscovery of lost antiquarian papers. In the meantime, it must suffice to draw attention to one useful document which came to light in the National Museum of Denmark in 1975. This is a series of large-scale coloured illustrations executed by James Plunkett for J. J. A. Worsaae early in 1847, two of which depict material expressly stated to have been found either at Kilmainham or at Lagore.¹³ Future study of this should give a clearer impression of the nature and extent of artefacts from the earliest period of discovery at Kilmainham.

Underwood, Worsaae and Wilde; their place in the history of the find

It is almost, though not quite, true, that 'there are no recorded associations with these diggings' (at Kilmainham-Islandbridge).¹⁴ Some sixty years ago, Armstrong, in cataloguing the material under his care at the National Museum, noticed an exception in the upper crossbar and pommel of a sword and a set of beads acquired by the Museum in 1881 from the widow of Sir William Perry.¹⁵ These are stated to have been 'found with human skeleton (feet towards east) in a grave near the Liffey'.

In 1975 the writer discovered a letter addressed to J. J. A. Worsaae in the National Museum of Denmark¹⁶ which relates to this discovery. The document prompts a full exploration of the burial and of its background.

Worsaae's visit to the British Isles in 1846-47 appears to have been undertaken more to whet his appetite for a proper study of the Vikings, rather than in order to broadcast C. J. Thomsen's 'Three Age System' for which he has become better

known. When he arrived in Dublin late in 1846,¹⁷ though intent upon examining *inter alia* private and public collections of antiquities for this purpose, he cannot have been prepared for his meetings with James Henry Underwood. Not only did Underwood sell and attempt to sell antiquities to the Dane, but he was also later to harrass both Worsaae and Thomsen by asking for alms, even addressing himself to the King of Denmark for that purpose.¹⁸

The tale of this patronage is told through a series of letters, not all of them dated, of which Worsaae was recipient during and after his stay in Dublin between December and April. Underwood offered single-finds from bogs, brought to Dublin at the height of the Famine, together with material from Lagore, some of which Worsaae must have bought, as they are now listed in the Register of the National Museum in Copenhagen.¹⁹

Whereas the greater part of the handful of letters is balanced about equally between salesmanship and servility, a little useful archaeological information occasionally slipped in. And indeed it might be argued that Underwood was remarkably adept as a contemporary observer and rescue archaeologist, roles which are demonstrated by his collection of many of the more mundane types of artefact from Dublin's medieval levels.²⁰

Underwood's letter is entitled simply 'Antiquities' and runs

Most interesting and novel discovery made in the vale of the Liffey near the Cashel terminus, of Iron Swords, and other implements &c supposed to have belonged to the Knight Templars founded by the Earl of Pembroke Strongbow time Henry II

Mr Underwood begs to inform Mr Worsaae that the workmen found in one grave about ten feet from the surface an entire skeleton lying to the east — the neck was encircled by a number of beads Beautifully ornamented in [2nd page] Glass and a very large one of Amber. All the beads were of different patterns. The Skull in attempting to preserve it entire crumbled to dust in the workman's hand. The other portion of the Skeleton was perfect and was carted away. With the above remains were found fragments of two swords with silver wire ['suspended' crossed out] attached to the Guard, also a fragment of the lower part of the blade greatly corroded.

Mr Underwood parted with all the specimens which he purchased at Kilmainham except one sword to Mr W. Perry of Newton Park a Patriotic & liberal collector of our National Antiquities.

On the reverse of the first leaf Underwood has written 'I have made this rude sketch in order to direct Mr Worsaae'[s] attention to the contents of one grave'. Though crude, this is the only graphic depiction of any grave from the 19th-century discoveries (Pl. v). The finds of which 'sketches' are given include 'Broken blade of Sword', 'Knob and portion of handle found in the grave', two guards with wire attached', a 'lance head' and several beads. Of these, Underwood states that he 'only got 12' 'the rest', he suspected 'were secreted' (presumably by workmen). He 'could not learn that any chain or plate armour' had been found, though 'Knives and dart heads' were 'in great abundance'. 'I gave surgeon Wilde a portion of skull', he adds.

These various details must be discussed at length, but first location of the find is important. The term 'Cashel Railway' which subsequently found its way into the Museum Reports is used elsewhere in the documentation to describe the line finishing at Kingsbridge and passing through Islandbridge and Kilmainham. And

while later writers (Armstrong in particular) could only regard the find as having been made in that general area, this letter puts its location beyond question, close to the Kingsbridge terminus, then known as 'Cashel'. That it was ten feet (*c.* 3.0 m) from the surface might suggest the possibility that there had been a deliberate covering mound of some sort, though the likelihood is that soil-creep, rubbish dumping or even silting were partly or jointly responsible for the depth of overburden.

Several important questions are raised by the 'plan'. How many graves were there? How were the grave-goods disposed within them? Can graves of more than one sex be recognized from either artefactual or skeletal evidence? How many swords were found, and what was their eventual fate?

At the site in question, there appear to have been two graves in close proximity set at right angles to each other, one E.-W. (head to the W.?), the other N.-S. We have no way of knowing the precise disposition of the grave-goods, of how the sword which escaped Perry related to the two graves, or how much artefactual or anatomical debris had been scattered by the workmen. We must therefore concentrate upon the few known facts.

THE FINDS

The Skull

Sir William Wilde, who may have relieved Underwood of the (perhaps otherwise unsaleable) skull fragment, was a regular donor to the Royal Irish Academy's Museum. The portion of skull alleged to have been given to him may have been that which he subsequently presented to the Academy on 10 January 1848. It was stated to have been 'discovered at Kilmainham with the iron weapons lately presented to the Academy by the Governors of the Royal Hospital'.²¹ But if that skull was not from the Cashel Terminus, we must now assume it lost. Wilde was to mention nothing of this in his account of the Islandbridge discoveries some twenty years later, and, as already suggested, there remains the possibility that Underwood was stating a glib unfulfilled intention or an untruth.

The Weapons

The effects of Sir William Perry were acquired by the Royal Irish Academy from his widow in 1881, as already noted. The transaction is recorded in the Antiquities Committee Minutes for 14 July of that year. There are few Viking relics among the acquisition, and a particularly strong contender emerges for Underwood's 'knob and parts of handle' in the form of a sword handle (N.M.I. 1881: 363).²² This, together with the beads from the grave, was described by Armstrong as having been purchased together from 'M.C. Overseer, Cashel Railway in September 1845', and while the date and vendor's name conflict with our present evidence, the former may be put down to a poor memory, the latter probably to the necessity for obfuscation, where Underwood may have been in possession of artefacts which were technically the property of the railway company. Alternatively, Underwood may merely have claimed that the whole transaction was in his gift, when in fact he had only picked up the one sword that he was trying to sell. On balance, this seems the more likely explanation.

From Underwood's remarks the impression is given that Perry had the sword in its entirety. If he did not, we can be assured of it having been placed in the cabinet of some other 'Patriotic and liberal collector'. The obvious place to search, therefore, is the Academy's collection, for towards that repository most other contemporary finds gravitated. And

though we may have the impression that there was an enormous number of swords coming from this cemetery at the time, close inspection reveals only a limited number of finds.

The 'two guards' mentioned by Underwood are difficult to place; he provides insufficient information to tell whether or not there were actually two of them from entirely different swords, on the one hand, or were both part of the hilt of a single weapon, on the other. For the sake of the discussion which follows, it will be assumed that the latter was the case. The fact that they are sketched with wire loosely dangling from them suggests that they were bound around with silver wire, and while the pommel and upper crossbar provenanced by Armstrong contain such decoration, the lower, if such it was, appears to have vanished. It would be strange for a silver decorated piece to have disappeared entirely, with only a handful of collectors upon the immediate scene of discovery.

Interestingly, there is only one odd *Crossbar of Sword* mentioned in Bøe's catalogue (Museum no. Wk. 44: Bøe p. 18). Whatever plating it ever had was gone when Bøe saw it, but it is of the right general type to have formed the lower part of a hilt of which the pommel (1881: 363) could have formed the upper. Its dimensions are: length 910 mm, width 340 mm and thickness 150 mm, but details as to its acquisition are lacking.

The Sword Pommel. By A. WALSH (Fig. 2)

As already noted, the earliest museum registration states that the sword pommel and upper guard (cross-bar) was 'found with Human skeleton (feet towards east) in a grave near the Liffey'. In the later Wakeman catalogue of 1894, the find is numbered '40', a marginal note cementing the equation between this and the 1881 register.²³ Wakeman added little beyond that the discovery was 'probably at or near Kilmainham', and these facts were repeated by Armstrong and Coffey.

When examined in the 1970s, the pommel was in poor condition, and in an uncleaned state, so that proper examination of constructional detail was found impossible.

The pommel-cap and pommel-bar appear to be riveted together. The pommel is approximately three-lobed but low and flat with less distinction between the lobes than is usual. The faces of the object are silver-plated with the silver hammered into engraved grooves in the iron. With wear these have the appearance of fine strips of silver laid parallel to each other. Most of the plating survives. The junction of the pommel-cap and pommel-bar preserves the majority of a twisted silver wire which is composed of two twisted strands, together approximately 1.0 mm in diameter. A complete wire binds the lower edge of the pommel bar, but the wires between the lobes mentioned by Bøe and illustrated by Armstrong no longer survive.

Its present dimensions are 810 mm in length, 440 mm high, and 10 mm thick, the pommel-bar being 150 mm high. The pommel falls within Type E of Petersen's classification,²⁴ the shallow lobes suggesting perhaps a local, Irish variant. And though Petersen suggests that the guards of the Irish Type E examples were plated in the manner of his Type H, he had not seen the Irish swords. Three Type E weapons have so far been recognized from Ireland, and this is the only one to be so ornamented. The Type E sword was dated by Petersen to the period 800-925, though mainly before 900. He considered it to be early Viking, developed from the imported Type D, which was of Norwegian origin. Thirty-one examples were known from Norway in 1912, twelve from Sweden, one from Finland and one from Denmark. He quoted no figures for the Irish material. His typology and chronology for the series are still generally employed, although inevitably with some reservations after 65 years.

The Spearhead

There was only one spearhead in the Perry Collection (1881: N.M.I. Wk. 52, Reg. 1881: 363) and this was almost indubitably the one mentioned by Underwood as a 'lance head'. It had deteriorated considerably by the time Bøe saw it during the 1930s. He described it only as a 'fragment of socket of slender spear with both ends broken off. Fragments of wooden shaft are preserved. Fragments of length 5.3 cm'.²⁵

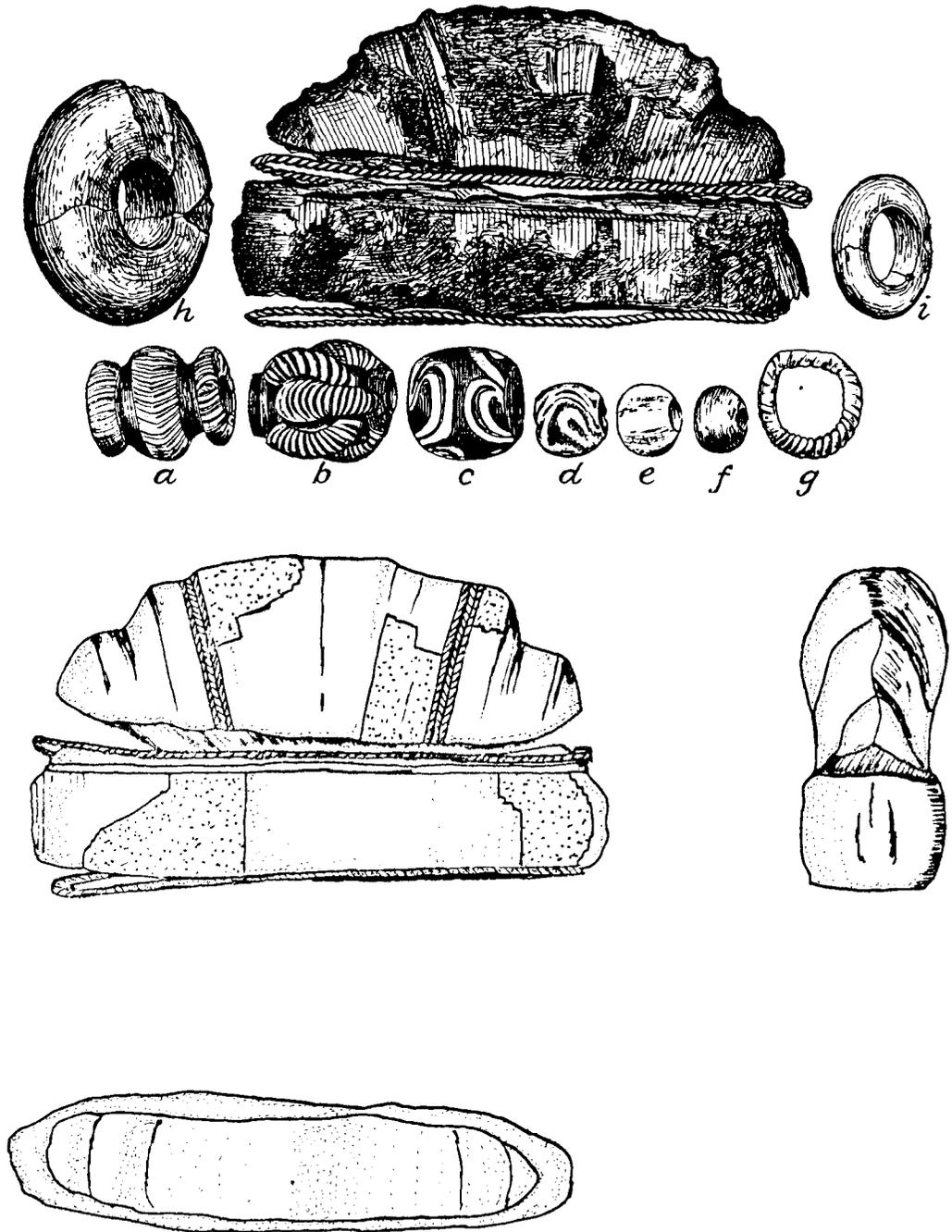


FIG. 2

Above: Illustration of grave-group from E. C. R. Armstrong's article in *Man*, 21 (1921), fig. 1: see note 15

Below: Sketch of pommel-cap as seen in 1970 (A. Walsh)

THE BEADS

The Glass Beads. By MARGARET GUIDO

Two beads shown in Armstrong's drawing (Fig. 2, upper: e and f) are globular, featureless and respectively translucent pale blue and opaque green, and cannot be profitably discussed. Armstrong's c, however, is more helpful, for it is a characteristic Viking bead, a large dark blue bead with white bands containing a bright red line. This type was defined by Callmer²⁶ as his Class Bf, which was common in Scandinavia between about 820 and 860, almost disappeared between 860 and 885, but became common again around 885–950. Although Callmer regards them as S. Scandinavian or W. European, they are certainly not common in the west and Scandinavia may have been the place of their origin. They occur in graves at Birka, thought to date from about 800 to 975.²⁷

Armstrong's a and b belong to a class known as 'string' beads, and these are almost certainly of Irish origin, for they are not uncommon in Ireland, and are characterized by a great number of variations, with finely twisted glass, and frequently tripartite in form with a central decoration (and often spirals) and a twisted 'collar' (generally blue and white) at each end. A few of these reached the W. coast of Norway and Sweden. The suggestion that 'string' beads may have had an Irish origin was first put forward by Coffey²⁸ but strangely enough, although Callmer identified several important glass-bead producing areas of Viking date, he writes nothing of Ireland, which not only had a long and rich tradition behind it, but whose products reached Scandinavia in the 9th century, and the Frankish areas even earlier.

In Britain and Ireland there is a strong tradition of these beads, which in Ireland appear to be centred upon Co. Antrim, perhaps owing to their frequent inclusion in Antrim collections. Some were possibly discovered elsewhere (Appendix I). Callmer defines these beads as his group Bj and notes that they are very exclusive in Scandinavia, with a chronological range covering his periods BP II–VII, A.D. 820–950.²⁹ They may have lingered rather longer in Ireland itself.

The blue and white twisted collars at the ends of many of these beads definitely relate them to another class which, although not represented in the group now under discussion, must be taken into consideration. There are many of these, varying from simple annular beads with fine twisted cables in blue and white, to more globular types in which a series of cables are arranged herring-bone wise one above the other, and possibly inspired by the similarly arranged but taller drum-shaped beads in terracotta red with green and yellow twists of the 6th and 7th centuries, of Frankish origin. These are not uncommon in Anglo-Saxon cemeteries both in Britain and on the Continent at about that date.

Basically important for a discussion of these blue and white beads are those from Lagore, though the accurate dating of this key site with its long occupation is still being discussed.³⁰ But many of the beads must clearly date back to the 7th century at least, and therefore start before the date of the 'string' beads with their more sophisticated technique. Hencken refers to several which could be matched in Frankish graves on the Continent, and so accounting for the suggested cultural influence (c) mentioned below. With Frankish imports as an inspiration, the native Irish genius for inventiveness was fully expressed. Dots, pellets or granulations and cables began to appear; they pre-date but sometimes last into the Hiberno-Norse period, and were certainly influenced by metal objects and metalworking techniques (see below).

An example of fine cable bead comes from the glass beads originating from the Kilmainham–Islandbridge discoveries,³¹ also from Dunadd, Argyllshire,³² Lagore, Co. Meath, Carraig Aille, Co. Limerick,³³ Ballinderry Crannog no. 2, Co. Meath,³⁴ Westness, Orkney (said to have been associated with a mid or late 9th-century brooch)³⁵ and Dun Aillinne, Co. Kildare, where the bead is of a related type, globular with green and white herringbone twist, though apparently from an Iron-Age context.³⁶

In Scandinavia Callmer's conclusions were as follows: he calls these beads his group Ka and notes that the colours are blue and white or bluish green with white or yellow. They occur

almost exclusively in period BPI (790–820), with only one stray in BP II (820–45), and he suggests a vaguely western European origin.³⁷ In fact, it seems that they originated in Ireland before the Viking period and lingered on into the 9th century.

Armstrong's bead d has a green ground with white design rather similar to c. Several related beads come from Scandinavia (Callmer's Period II) and are datable perhaps to c. 820–45. But related beads can also be cited from Lisnacrogher (see below), Dunbeag, Skye,³⁸ Moylarg Crannog³⁹ and several others from Antrim, probably Norse, but possibly Hiberno-Norse.

Armstrong's g is an unusual D-shaped rilled bead. It has one or two metal analogues in Scandinavia. These include the twisted ring and a gold finger-ring (C 20483)⁴⁰ from Tune, Østfold, in Norway. Six such rings have been found in Norway.⁴¹ Personally, I believe the bead from Kilmainham to be a copy in glass of a bronze sword mounting such as was found, for instance, at Lisnacrogher, possibly fixed on the end of a handle of a small sword or dagger, dated to about the 9th century.⁴² Such borrowing from one craft to another, glass imitating metal and *vice versa* (between in this case technically very similar procedures) is clearly displayed in Ireland, and an excellent example of a marriage between these techniques is to be had from close to hand in the glass-over-wooden beads from Kilmainham, sixteen of which exhibit gold, and one silver, film in the glass.⁴³ Possibly, metal filigree may have been copied in fine twisted glass.

The beads themselves must be dated upon their characteristics, but this is made the more difficult since it is known that small objects such as beads and coins were treasured as heirlooms and need not have been buried or lost till decades after they were manufactured. However tentative, some attempt must be made to provide a cultural and chronological setting for them, and to begin with it should be recognized that various cultural influences must be looked for in Ireland at the period in question: (a) pre-viking Irish: (b) Pictish: (c) Frankish: and (d) Viking.

As far as the first is concerned, one should look first at the beads from Lagore (Co. Meath), a site which produced a large number of pre-Viking beads, further discussed below. As Graham-Campbell has pointed out, brooches of late Pictish tradition from Scotland influenced the Irish ones in the 9th century 'possibly as a result of the flight of small numbers of people from Scotland in the face of the Vikings'.⁴⁴ However, as far as beads are known, there is little evidence of their production in Pictish regions at that time, and that influence (b) above probably contributed little to the Irish repertoire. Professor C. Thomas, referring to Lagore, says that it yielded 'many finds of arms and weapons, some clearly Irish, others labelled in the past as Viking because they appear to be Germanic. Careful re-assessment of the evidence suggests that some, at least, of this material may really be seventh or early eighth century'.⁴⁵ The occupation at Lagore came to an end in 934 when the Vikings were again in Dublin after their earlier expulsion thirty years before, but although the Lagore stratification can be taken as a useful guideline, the site, owing to the nature of the ground, cannot be completely relied on. Another contributory difficulty at Lagore lies in the fact that the inhabitants were in possession of more exotic objects, such as samian ware and a Meare spiral bead of about the 2nd/1st century B.C.⁴⁶

Frankish or Gaulish influence upon Ireland is demonstrated by a number of finds, including beads, E ware and a small flask from Co. Sligo,⁴⁷ and by linguistic evidence for contact.⁴⁸ There is a number of Frankish or imitation Frankish beads in Ireland.

Dublin was founded in A.D. 841.⁴⁹ The fact that some of the Islandbridge beads appear to be Hiberno-Norse rather than pure Viking suggests that sufficient time must have elapsed after Viking influence started to arrive through trade contacts for the Irish glass-makers to have been influenced by the foreigners, and for this at least a decade is likely. Thus their deposition is not likely to have taken place before 820 or so, for this is when Irish metal imports into Scandinavia began.⁵⁰ Allowing for the fact that some of our beads are of pure Viking type, one may reasonably bring down the date even later than 830–40.

So far, a possible date of c. 830–900 can be postulated, but here a closer look at the historical scene should be considered even if it is not particularly helpful. By the middle of the

9th century, there had come into being the Gall-Gaedhill — people of Celtic and Viking inter-marriage who 'produced a mongrelism of race, culture, religion and political interest'.⁵¹ This might provide the most likely background for our Hiberno-Norse burial, but against this hypothesis it must be noted that those were the years when the Danes had arrived, and battles were constantly taking place. When Olaf, son of the king of Norway, returned to Ireland, he ruled in Dublin from 856/57 to 871, perhaps a sufficiently long and peaceful span to allow the Irish glass-making tradition to be influenced by the Norse and *vice versa*. The Irish element certainly re-emerged after the Norwegians and Danes had left Dublin, after 902, though in the case of glass working some might have been continuing undisturbed outside the area of Viking cultural penetration of about one hundred miles radius of Dublin.

Thus, for the glass beads, we arrive at a date of about 840–900, using a historically-based argument to explain the glass-working traditions of the artisans, and an estimate of currency well into the 10th century, basing the argument upon typological considerations.

On the Material of the Glass Beads. By C. S. BRIGGS

Re-provenancing beads from the mid 19th-century Kilmainham–Islandbridge cemeteries is not easy. It is clear that a number of the Academy's beads originated there. In 1853, Mallet mentioned four which he had subjected to chemical analysis,⁵² and while we cannot be absolutely certain of the precise samples he was citing, as will be shown below, we can gain a reasonable idea. In any event, his results are worth quoting, since considerable interest is now being shown in the analysis of such early pieces.⁵³

One bead, Mallet's no. 1, was dark blue and resembled modern cobalt glass in colour, but was full of minute air bubbles. He determined its colouring agent to be oxide of cobalt, the glass also including a trace of copper. Mallet was unable to say if the latter was added intentionally, but he believed it highly unlikely that the metal cobalt was itself known to its manufacturer. This cobalt bead may be equated with that illustrated by Armstrong in 1921 as 'k' (not on Fig. 2), which in common with those examined by Mallet, came from Kilmainham.

Another one, 'Blebbly, light blue, verging on green, also containing air bubbles, was found to be coloured by copper oxide', while the third (no. 4), more nearly transparent, having only a very faint tinge of sea-green, probably an intention at colourless glass, contained no detectable metallic oxide, except the merest trace of oxide of iron. A fourth bead, flat in form, and of white opaque material, was found to be of a pure crystalline white marble. Mallet's nos. 3, 4 and 5, may now be equated, if somewhat tentatively in the case of no. 3, with Armstrong's beads as 'l', 'p' and 's' respectively.

Respecting the variety of minerals involved, we might usefully note that County Dublin hosts a wide variety of minerals: cobalt and copper are known from within ten miles of Kilmainham;⁵⁴ lead was taken from Kilmainham common in quite recent times⁵⁵ and it would be easy to find iron oxide almost anywhere. The raw materials for the other beads, including silver, might easily have been procured — within the general area of Counties Dublin and Wicklow,⁵⁶ if not actually cupellated from Kilmainham lead upon the spot.

The Amber Beads. By C. S. BRIGGS

The two remaining beads, though of amber, are not entirely without interest, even if ornaments in such a medium are common from Bronze Age until medieval times in Ireland. Until recently, most writers considered amber to have been an import from the Baltic to Ireland. There is certainly evidence of amber working in Viking cities, both in Scandinavia and in England, for example at York.⁵⁷ Recent excavations at Armagh have now shown that amber working was present in pre-Viking times, and while we may not be certain of the immediate origin of the raw material, it is useful to know that amber working was not entirely a northern craft; and also, that amber and 'coloured stones' (i.e. presumably beads) were to be obtained from Irish, as well as Scandinavian ports, if the author of the Arab compilation

the *Nuzhat al-Mushtaq* is to be believed.⁵⁹ Evidence of native amber deposits in Ireland does exist, and there can be little doubt that casual discoveries of the mineral made during farming, or from systematic beach or river collection, would have been used alongside any imported material during Viking times. There is, however, a growing need to locate amber occurrences and to describe scientifically the chemical and physical properties of the local material before any programme concerned with the artefacts is embarked upon.⁶⁰

DISCUSSION

THE KILMAINHAM BURIAL IN THE CONTEXT OF VIKING-AGE BRITAIN AND IRELAND

Although it is known that Iron-Age communities in Ireland practised burial with beads,⁶¹ and undated, presumably Dark-Age pre-Christian burials have been recognized at Knowth,⁶² it is difficult to know the extent to which the similar practice at Kilmainham demonstrates local continuity or a fresh introduction.

The earliest settlement at Kilmainham was the monastery of St Maginn, and it was between this site and the river that a few dozen Viking warriors, apparently with no more than a handful of their womenfolk (to judge from their grave-goods), were buried. The incidence of bead burial in these interments must relate to the relative purity of Christian tradition at the time of burial. This relationship is worth exploring.

Ireland has only produced three sets of beads from Viking grave contexts. These have already been mentioned; all originated in the Dublin cemeteries. Not dissimilar examples have been found in excavated settlement contexts at Winetavern Street: one set comprised at least fourteen green glass beads and two of amber, another, sixteen of green glass and two of amber. These were from 10th-century levels.⁶³ The inclusion of a couple of amber beads both in these and in the Kilmainham necklace is noteworthy, confirming that there existed a well-defined local bead-making and bead-wearing tradition.

In England, beads accompanying Viking grave-goods are not common, principally, it must be said, because Viking burials are rare. The only true bead group is from Saffron Walden, believed to have belonged to a woman buried among Anglo-Saxons, probably in the first half of the 10th century.⁶⁴ The burial group from Claughton Hall, Lancashire, includes both weapons and ornaments probably indicative of a joint male and female burial.⁶⁵ Besides a bronze ornament of Carolingian origin and a pair of oval brooches, there were two beads, one of red, the other blue (and ?white) glass or paste.

Within the more pagan provinces of Viking Britain, from Scotland and the Islands, a handful of grave finds is known with beads.⁶⁶ Single beads or pairs in jet or jet and amber are the most common, and these appear to define a local culture province along the Western Seaboard, closely related to the occurrence of Tertiary lignites,⁶⁷ rather than to jet or lignite traded from N. Yorkshire,⁶⁸ as was at one time thought to have been the case. Besides the more common jet beads, the following are worth mentioning: a burial on Oronsay included two beads, one of amber, another of serpentine;⁶⁹ a similar group at Eigg;⁷⁰ from Sanday comes a group including

amber, blue glass, and a third of an unknown white material;⁷¹ from Clibberswick, Uist, Shetland, two glass beads, one round and flat, the other of lines or rolls of twisted white on blue glass.⁷²

Only three sets of Viking-Age glass beads are known from Scotland. The most elaborate is an unassociated group from peat-cutting at Hillswick, Mainland of Shetland.⁷³ Its components are entirely of glass, and include beads exhibiting varied mosaic work, some with black and red inlays on yellow ground. Such a group is more reminiscent of the Scandinavian cemeteries, and of the 'bead trade', than of the cultural milieu suggested by the composition of the other contemporary Scottish-Irish grave-groups. These include a large group of beads found in a grave at Ballinaby, Islay, of which the component pieces were in amber, jet, clay and glass, and another, said to consist of 34 beads, comprising eight of amber,⁷⁴ the majority of the others in types of blue glass, though a handful were in other colours.

Since Scandinavian women were often buried in the 9th century with ornaments such as beads, penannular rings, oval brooches, and combs, it is usually assumed that such objects found in graves where the skeleton is not available for study are indicators of a female interment. The presence of both metal ornaments and beads at Kilmainham/Islandbridge demonstrates that women were being interred there following customs similar to those which obtained elsewhere in the pagan north. But the paucity of pagan Viking burials from Britain and Ireland indicates the general rapidity of conversion to Christianity, or at least to Christian burial practices, generally, and though the Kilmainham/Islandbridge cemetery does at first sight appear large, when considered alongside the supposed numbers of immigrant Norsemen, the quantity of known grave furniture and the widespread geographical disposition of its population need not in itself be taken to suggest that conversion took longer here than elsewhere.⁷⁵ There remain so many outstanding problems about both the archaeology of the first Viking Dublin, and of technical and cultural questions arising from the known grave-goods, that the status of those buried there must remain to a greater degree conjectural.

Unfortunately, the circumstances under which Underwood's Kilmainham burial was disinterred have left us little real evidence with which to speculate about the owner of either necklace or the weaponry found with it. The preservation of anatomical remains might have shown this to be a rare example of a female warrior buried with weapons as well as beads; alternatively, we may be dealing with a double burial, in which the beads were worn by one destined to die alongside her husband or master.⁷⁶

APPENDIX

'String' beads from major known collections in the British Isles: an introductory list

By MARGARET GUIDO

Ulster Museum: Grainger Collection; 1912: 172, 174, 177, 2894.

Benn Collection: 1913; 204, 207, 2404, 2442, 2438. 1919; 198 and more recent acquisitions, for example 1966-A347.

National Museum of Ireland:

Co. Antrim (unlocalized) 16 specimens.

Clough td, Rasharkin 7, Glenariff Mountain 3, Lough Revel Crannog (R. Day, 'On some ancient personal ornaments of glass found in Ireland', *J. Roy. Soc. Antiq. Ireland*, 10 (1868-69), 335-38, no. 5 on plate opp. p. 335).

Co. Derry, Newtown Limavady (see Day, loc. cit., no. 2 on plate opp. p. 335).

Co. Donegal, Loughlarden Hill, N.M.I. 1927-33.

Co. Down, Dromore.

Co. Dublin, Pigson House Fort, 1918: 368, stray find.

Co. Laois, Ballintlea, near Timahoe (D. O'Byrne, 'Ancient glass bead [untitled]', *J. Roy. Soc. Antiq. Ireland*, 4 (1858-59), 8; Day, loc. cit. above, 336).

Co. Roscommon, Roosky.

Belfast, Ministry of Finance (Archaeological Survey):

Co. Antrim, Ballypalady Rath (D. M. Waterman, 'A group of Raths at Ballypalady, Co. Antrim', *Ulster J. Archaeol.*, 35 (1972), 29-36; 36, fig. 5).

Cambridge, University Museum. Beck Collection (ex-Day Collection).

Oxford, Ashmolean Museum. 1836-70 and 1886; 5722-24, 5725-49.

Edinburgh: National Museum of Antiquities of Scotland. John Bell Collection; FK9, FK15, FK16, FK18.

Glasgow: Kelvingrove Museum. Dumfriesshire, Dowalton Loch (*Ayr and Galloway Collns*, 5 (1885), 98, fig. 13; F. Keller, *The Lake Dwellings of Europe* (London, 1878), pl. XXXI, no. 2, fig. 89; *Proc. Soc. Antiq. Scotland*, 1864-65), 109-11; donations to the Museum).

Hunterian Museum. Three beads from the Bishop Collection (N. Ireland) nos. B1914.524. One 'Irish' B1951.2705/3; one ?Ballymena, Co. Antrim, B1951.2602/2. Also B1951.2705/3

Cirencester Museum, Gloucestershire. Cirencester (no. B911, unstratified).

Farnham, Dorset. Pitt-Rivers Collection, specimens now dispersed.

Bibliographical Note

For coloured reproductions of 'string' and other beads see E. Benn, 'Notices of British Antiquities, No. 2, Objects of Glass', *Trans. Hist. Soc. Lancashire Cheshire*, vi (1853-54), 97-99; and W. J. Knowles, 'Ancient Irish Beads and Amulets', *J. Roy. Soc. Antiq. Ireland*, 15 (1881), 522-37.

A list of twelve 19th-century papers on the subject of Irish glass beads is to be found in note 1 of L. Hassé, 'Statistics of Ornamented glass beads in Irish Collections; *J. Roy. Soc. Antiq. Ireland*, 21 (1890-91), 359-66.

ACKNOWLEDGEMENTS

The writers thank those many members of staff at the National Museums of Denmark, Ireland and Norway, who have assisted in the writing of this article. Thanks are also due to James Graham-Campbell, Richard Hall, Richard Haworth, Cherry Lavell, Ceridwen Lloyd-Morgan and John Waddell, for help in various ways.

NOTES

¹ J. Graham-Campbell, 'The Viking-age silver hoards of Ireland', 39-74 in B. Almqvist and D. Greene (eds.), *Proc. Seventh Viking Congress* (Dublin, 1976), map I, 41.

² G. Coffey and E. C. R. Armstrong, 'Scandinavian objects found at Islandbridge and Kilmainham', *Proc. Royal Irish Acad.*, 18(C) (1910), 107-22.

³ H. A. Shetelig (ed.), *Viking Antiquities in Great Britain and Ireland*, vols. I–VI: vols. I–V (Oslo, 1940), VI (Oslo, 1954). Vol. II (Scotland), S. Grieg; vol. III (Ireland), J. Bøe; vol. IV (England), A. Bjorn and H. A. Shetelig; vol. VI, 'Civilisation of the Viking Settlers in relation to their old and new countries', A. O. Curle, M. Olsen and H. A. Shetelig; henceforth *VA* I–VI; *VA* III, 11–65.

⁴ J. J. A. Worsaae, *The Danes and Norsemen in England, Scotland and Ireland* (London, 1852), 331.

⁵ As noted by W. R. Wilde, 'On the Scandinavian Antiquities lately discovered at Islandbridge, near Dublin', *Proc. Royal Irish Acad.*, 10 (1866), 13–22.

⁶ *Ibid.*, 13.

⁷ *Reports of the National Museum of Ireland* (1932–33), 15; (1933–34), 15; (1934–35), 24; *VA* III, 58–62.

⁸ I am indebted to Mr J. Sheehan, sometime of the National Museum of Ireland, for confirming that there is insubstantial documentation to these discoveries. Inquiries at the Archaeological Survey of Ireland have produced no further information.

⁹ W. R. Wilde, *A Catalogue of the Antiquities in the Collection of the Royal Irish Academy* (Dublin, 1857–63). The relatively recent (? post-War) disappearance of Wilde's MS. catalogue of the iron artefacts presents a serious obstacle to the investigation of early acquisitions of the National Museum's collections.

¹⁰ W. F. Wakeman, 'Catalogue of the specimens in the Collection of the Royal Irish Academy, vol. 1' (Dublin, 1894). Six copies printed, unpublished.

¹¹ Graham-Campbell, *op. cit.* in note 1, 40.

¹² There has been considerable recent discussion of the early Norse site of Dublin. The present writer suggests the Royal Hospital as an original focus of settlement, since it was the site of the earliest and most important monastery (St Maginn's) in the immediate Liffey watershed, and, generally in Ireland, monasteries attracted Viking settlement. Further discussion of the topographical and archaeological factors affecting this suggested site will be presented elsewhere.

¹³ The drawings are in the First Department and have been studied through the good offices of Dr David Liversage. One of the two Viking groups has recently been illustrated by J. Graham-Campbell in *The Viking World* (London, 1980), 25.

¹⁴ Graham-Campbell, *loc. cit.* in note 1.

¹⁵ E. C. R. Armstrong, 'Two Irish Finds of Glass Beads of the Viking Period', *Man*, 21 (1921), 71–73.

¹⁶ In the Second Department. I am indebted to Fru Fritze Lindahl for her kind assistance in my following up Worsaae's travels, and for permission to publish the letter which follows.

¹⁷ V. Hermansen, *J. J. A. Worsaae, En Oldgranskers Erindringer* (Copenhagen, 1934). I gratefully acknowledge Fru Annette Jung for generously translating the relevant passages.

¹⁸ The relationship is discussed in some detail in C. S. Briggs, 'James Henry Underwood: First Dealer in Irish Antiquities', *Dublin Hist. Rec.*, 33 (1979), 25–36.

¹⁹ The registration is of 1852, re-registering all material collected on foreign travels over the preceding six or seven years.

²⁰ C. S. Briggs, 'Dealing in Antiquities in 19th Century Dublin', *Dublin Hist. Rec.*, 31 (1978), 146–48 and fig. 15.

²¹ *Proc. Royal Irish Acad.*, 4 (1847–50), 35, 10 January 1848. I am indebted to Mr Aidan Walsh for most useful discussion of the early acquisitions of the Academy and of their documentation and provenance. Mr Walsh is engaged in compiling a full inventory of the Dublin finds and would be interested to hear of any antiquarian letters or drawings which might shed light upon the early discoveries.

²² These particulars have kindly been provided by Mr M. Ryan, Keeper of Antiquities, National Museum of Ireland.

²³ Wakeman, *op. cit.* in note 10.

²⁴ J. Petersen, *De Norske Vikingsverd* (Kristiania, 1919).

²⁵ *VA* III, 32.

²⁶ J. Callmer, 'Trade Beads and Bead Trade in Scandinavia, c. 800–1000 A.D.', *Acta Archaeol. Lund.*, 11 (1971), 1–217.

²⁷ H. Arbman, *Birka I, Die Gräber* (Stockholm, 1940–43).

²⁸ G. Coffey, *Guide to the Celtic Antiquities of the Christian Period in the Museum of the Royal Irish Academy* (Dublin, 1910), 68–69.

²⁹ Callmer, *op. cit.* in note 26.

³⁰ H. O'Neill Hencken, 'Lagore Crannog: An Irish Royal Residence of the 7th to 9th centuries A.D.', *Proc. Royal Irish Acad.*, 53(C) (1950), 1–197.

³¹ Plunkett drawings noted above in note 13.

³² J. Anderson and D. Christison, 'Report on the Society's excavations of forts on the Poltalloch Estate, Argyll', *Proc. Soc. Antiq. Scotland*, 39 (1904–05), 259–322, figs. 42–44, p. 315.

³³ S. P. O'Riordain, 'Excavations at Carraig Aille, Lough Gur, Co. Limerick', *Proc. Royal Irish Acad.*, 52(C) (1951), 62–63.

³⁴ H. O'Neill Hencken, 'Ballinderry Crannog No. 2', *ibid.*, 47(C) (1942), 1–76.

³⁵ National Museum of Antiquities of Scotland.

³⁶ Information kindly communicated by Professor Bernard Wailes.

³⁷ As note 36. Note a yellow bead of the type with pale green herringbone, in a Dark-Age house: D. M. Waterman, 'The excavation of a house and souterrain at White Fort, Drumaroad, Co. Down', *Ulster J. Archaeol.*, 19 (1956), 73–86; 84 fig. 10.1.

³⁸ Exhibition by R. Munro; articles from a crannog at Lochspouts, nr. Maybole, *Proc. Soc. Antiq. Scotland*, 15 (1880–81), 107–10.

- ³⁹ G. R. Buick, 'The Crannog of Moylurg', *J. Royal Soc. Antiq. Ireland*, 23 (1893), 37–43; *ibid.* 24 (1894), 315–31.
- ⁴⁰ Kindly drawn to my attention by Connie Hagen and Birgit Heyerdahl-Larsen of Oslo University; J. Petersen, *Vikingetidens Smykker* (Stavanger, 1928), fig. 195.
- ⁴¹ Petersen refers to S. Müller's *Ordning af Danmarks Oldsager* (Copenhagen, 1888–95), fig. 653, and O. Montelius, *Svenska Fornsaker, ordnande och beskrifna af O. Montelius, teknade på trä af C.-F. Lindberg* (Stockholm, 1872–74), vol. 2 (1874), fig. 621.
- ⁴² L. Hassé, 'Objects from the Sandhills at Portstewart and Grangemore and their antiquity', *J. Royal Soc. Antiq. Ireland*, 21 (1890–91), 130–38, pl. III, no. 7. The beads from this site were analogous to those from Moylurg (see note 39), of the 9th/10th centuries.
- ⁴³ *VA III*, 45, N.M.I. Reg. 2419.
- ⁴⁴ J. Graham-Campbell, 'Bossed penannular brooches: a review of recent research', *Medieval Archaeol.*, 19 (1975), 33–47, at 43.
- ⁴⁵ C. Thomas, *Britain and Ireland in Early Christian Times A.D. 400–800* (London, 1971), 135.
- ⁴⁶ M. Guido, *The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland* (Rep. Soc. Antiq. London no. 35, 1978).
- ⁴⁷ D. P. S. Peacock, 'E Ware and Aquitaine', *Scottish Archaeol. Forum*, 13 (1984), 38–39 and R. Hodges, 'The date and source of E ware', *ibid.*, 39–41, responding to E. Campbell, 'E Ware and Aquitaine — a reconsideration of the petrological evidence', *ibid.*, 35–38; C. Thomas, *A Provisional List of Imported Pottery in Post-Roman Western Britain and Ireland* (Truro, 1981); D. B. Harden, 'Glass vessels in Britain and Ireland, A.D. 400–1000', 132–67 in D. B. Harden (ed.) *Dark-Age Britain* (Oxford, 1956), 154.
- ⁴⁸ Thomas, *loc. cit.* in note 45.
- ⁴⁹ P. F. Wallace, 'The origins of Dublin', 129–43 in B. G. Scott (ed.), *Studies in Early Ireland: Essays in Honour of M. V. Duignan* (Belfast, n.d.).
- ⁵⁰ E. Bakka, 'Trade Relations with the continent and the British Isles in Pre-Viking times', *Early Medieval Stud.*, 3 (*Antikvariset Arkiv.*, xl, 1971), 40.
- ⁵¹ G. Jones, *A History of the Vikings* (Oxford, 1968), 206, n. 1.
- ⁵² J. W. Mallet, 'Report on the chemical examination of Antiquities from the Museum of the Royal Irish Academy', *Trans. Royal Irish Acad.*, 22 (1853), 313–42, at 338–39.
- ⁵³ In prefacing their article 'Dating Irish Glass Beads by Chemical analysis', 52–56 in D. Ó Corráin (ed.), *Irish Antiquity* (Cork, 1981), in which beads are grouped by multivariate analysis using the results of X-ray spectrometry, I. Meighan and R. B. Warner have expressed a belief (pp. 52–53) that the results will provide 'information for geographical as well as chronological grouping of the artifacts'. Their study does not, however, mention any potential geological disposition of sources of the raw materials involved, or of any intention to subject minerals of local occurrence such as may have been employed in the manufacture of the beads, to the same techniques of analysis. Without a search of suitable mineral deposits in the localities of the major glass workshops or groupings, definitive conclusions will be difficult to arrive at.
- ⁵⁴ G. A. J. Cole, *Memoir and Map of Localities of Economic Importance and Metalliferous Mines in Ireland* (Dublin, 1922 and 1956); copper, 30–36. Cobalt commonly occurs as a trace element in metamorphic and igneous rocks, and is noted locally by J. P. O'Reilly, 'On the occurrence of Serpentine at Bray Head', *Proc. Royal Irish Acad.*, 1, ser. 3 (1891), 503–11, at 508.
- ⁵⁵ S. Lewis, *A Topographical Dictionary of Ireland* (London, 1837), unpaginated; S.V. Kilmainham.
- ⁵⁶ Cole, *loc. cit.* in note 54.
- ⁵⁷ R. A. Hall, *The Viking Dig* (London, 1984), col. pl. 81.
- ⁵⁸ I am indebted to C. J. Lynn for informing me of this evidence in advance of his definitive publication.
- ⁵⁹ D. James, 'Two Medieval Arabic Accounts of Ireland', *J. Royal Soc. Antiq. Ireland*, 108 (1978), 5–9.
- ⁶⁰ C. S. Briggs, 'Amber in Ireland; some geological notes', appendix 1 in E. A. Kelly, 'A prehistoric amber find from Ballylin, Co. Offaly', *Éile*, 2 (1983–84), 81–85, Roscrea, Ireland.
- ⁶¹ B. Raftery, 'Iron Age burials in Ireland', 173–204 in Ó Corráin (ed.), *op. cit.* in note 53.
- ⁶² G. Eogan, 'Report on the excavations of some passage graves, unprotected inhumation burials and a settlement site at Knowth, C. Meath', *Proc. Royal Irish Acad.*, 74(C) (1974), 11–112 at 81–82.
- ⁶³ *Viking and Medieval Dublin: Catalogue of Exhibition* (National Museum Excavations 1962–73) (Dublin, 1973 and 1976), 11 and 28 items 36–39.
- ⁶⁴ V. I. Evison, 'A Viking Grave at Sonning, Berks.', *Antiq. J.*, 49 (1969), 330–45, at 336, 341 and 343–44: for the date, see J. Graham-Campbell, *Viking Artefacts* (London, 1980), no. 164.
- ⁶⁵ B. J. N. Edwards, 'The Claughton Hall Viking burial', *Trans. Hist. Soc. Lancashire Cheshire*, 121 (1969), 109–16. The bead colours are taken from an unpublished MS. drawing by W. Latham, of 1824, in the Manchester Central Reference Library.
- ⁶⁶ *VA II*, 13–104 *passim*.
- ⁶⁷ W. J. Gibson, *Lignite and Mineral Oils in Scotland*, Geol. Survey Mem. (H.M.S.O., 1922), 37–43.
- ⁶⁸ *VA VI*, 98–99.
- ⁶⁹ *VA II*, 45.
- ⁷⁰ For Eigg, see *VA II*, 68, 70.
- ⁷¹ *Ibid.*, 88.
- ⁷² *Ibid.*, 103–05.
- ⁷³ *Ibid.*, 181; *VA VI*, 69.
- ⁷⁴ *VA II*, 38; J. Anderson, *Scotland in Pagan Times: The Iron Age* (Edinburgh, 1883), 28, fig. 24.
- ⁷⁵ For discussion see D. M. Wilson, 'The Vikings' relationship with Christianity in Northern England', *J. Brit. Archaeol. Assoc.*, 30 (1967), 37–47.
- ⁷⁶ Cf. discussion by R. A. Hall, 'A Viking-age grave at Donnybrook, Co. Dublin', *Medieval Archaeol.*, 22 (1978), 64–83.