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Viking Age gold and silver from Irish crannogs and other watery places

James Graham-Campbell and John Sheehan

It has been observed that Viking Age gold finds in Scandinavia and Britain are frequently associated with watery environments and may represent ritual or votive depositions. There is also evidence, literary and archaeological, for the ritual deposition of some silver hoards in the Viking world. This paper considers the evidence of those Viking Age gold and silver hoards and single finds from Ireland that derive from watery locations, including crannogs and their environs. It is noted that all recorded gold hoards, with one exception, have an apparent association with water or watery places and thus conform to the patterns noted elsewhere. Most of the crannog finds, which are invariably of silver, are from the midland region, and it is noted that a high proportion of them contain ingots and hack-silver and are thus most probably economic rather than ritual in function. It is suggested that these types of hoards evidence a close economic relationship between the Hiberno-Scandinavians of Dublin and the Southern Uí Néill rulers of this area. Some of the remaining silver hoards—from bogs, rivers, lakes, small islands and shorelines—which vary in terms of their contents, with both complete ornaments and hack-silver being represented, may have been ritually deposited, but this is difficult to establish with any degree of certainty. A general discussion of ritual hoarding is presented, and it is concluded that this practice may have been more commonplace than has generally been accepted to date and that some, at least, of the 'watery' finds from Ireland were indeed deposited in a ritual context.

INTRODUCTION

This review of the Viking Age gold and silver hoards recovered from crannogs and other watery places in Ireland, together with related single finds, considers them for the most part separately from other such Irish finds dating from the ninth to eleventh centuries (Fig.1). It might be considered a somewhat arbitrary approach to this material, but it does provide an interesting avenue of exploration. Many of the finds discussed here arose from the growth of illegal searching for archaeological material during the 1970s and 1980s (Kelly 1993). Of the ten hoards now on record from crannogs, for instance, none was available to be listed in Graham-Campbell's mid-1970s survey of Ireland's Viking Age silver hoards (Graham-Campbell 1976), given that the exact find-context of the coin hoard found in 1843 'at' Lough Lene, Co. Westmeath, is not recorded (see below). The few metal-detected finds known by then were not yet in the public domain.

Our survey begins with some consideration of what the presence of gold and silver might signify, during the ninth to eleventh centuries, at three different, but related, types of watery environment: (1) in bogs, rivers, lakes and the sea; (2) on small islands, seashores and lakeshores; and (3) on crannogs themselves, as an indigenous form of settlement site.

1. BOGS, RIVERS, LAKES AND THE SEA

It is a matter of note that three of the five gold armrings to have been found in Britain during the last 50 years are from the sea, or at least from the seaside. Of these, one was recovered by a diver off the island of Jura, on the west coast of Scotland, in 1981 (Graham-Campbell 1995, 164, no. S24); one was fished up in the English Channel, off the coast of Eastbourne, East Sussex, in the 1950s (Graham-Campbell, forthcoming, no. 18); and the third was picked up by a honeymoon couple walking on a beach in Devon, at Goodrington, in 1978 (Graham-Campbell 1980, 62, no. 222; forthcoming, no. 19). Just as remarkable is the fact that one of only two gold finger-rings in the form of Hiberno-Scandinavian coiled arm-rings (Sheehan 1992a) to have been found in Britain is from an inland watercourse in the north-west of England: that from Saddleworth, Lancashire (ibid., 41, 42, pl. 6), was found in 1914 'in the river bed at the foot of Chew Valley, Saddleworth, being quite visible among the boulders and sand in the water' (Graham-Campbell, forthcoming, no. 30).

At the same time, it has been observed that Viking Age gold objects are often found in watery places in Scandinavia (Hårdh 1996, 134), suggesting that these were frequently deposited with no intention of recovery—in other words, as offerings. Of particular interest in this regard is the remarkable group of pre-Viking and Viking Age objects recently recovered from

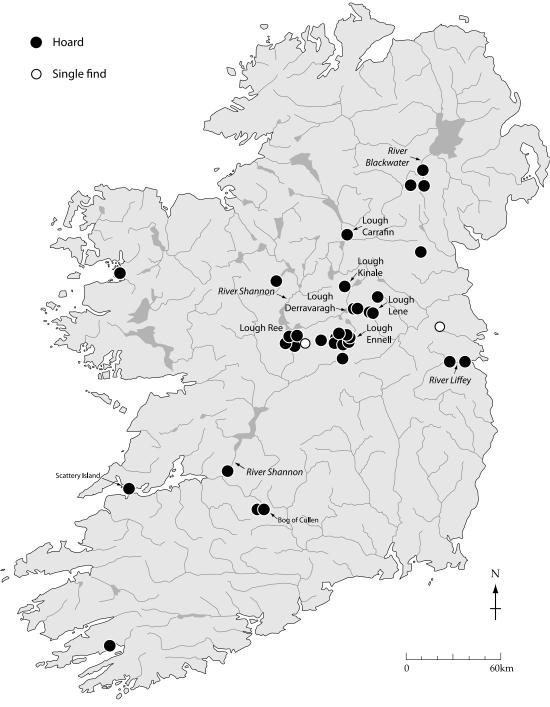


Fig. I — Location of the find-spots of Viking Age hoards and single finds from crannogs and other 'watery places' in Ireland.

Lake Tissø in Sjælland, Denmark, where they had presumably been deposited as offerings to Tir/Tyr (one of the Viking war gods), given that the meaning of Tissø is 'Tir/Tyr's lake' (Jørgensen 2003, 183). Likewise in Western Europe, Viking Age weapons are well-known finds from rivers in Ireland, England, Belgium and France (Bøe 1940, 83–91; Bjørn and Shetelig 1940, 55–99, 120–31; Roesdahl 2003, 208, 210).

In Ireland, two gold rings are known from rivers: one of these is a finger-ring that forms part of the exceptional Shanmullagh find from the Blackwater, Co. Armagh (see below), and the other is a finger-ring from the Liffey at Islandbridge, Co. Dublin (Bøe 1940, 105; Graham-Campbell 1976, 72). There is also a silver armring with a 'River Liffey' provenance (Fig. 2), evidenced on the basis of a faint pencil inscription on a coloured



Fig. 2—Arm-ring from the River Liffey, probably Co. Dublin. Not to scale (photo: John Sheehan).

drawing by James Plunket of Viking Age silver and other antiquities, prepared for the visiting Danish archaeologist J. J. A. Worsaae in 1846 and now in Copenhagen (Sheehan et al. 2001b, X70). The ring is annotated 'Liffey flodden, mange af de andre sølvringe fundene i flodengen', or 'The River Liffey, many of the other silver rings found in the river-meadow [or bed?]' (Briggs and Sheehan 1987),² suggesting that other arm-rings (presumably in this same drawing) derive from an undocumented hoard found either alongside or in the Liffey.

Two silver hoards are known to have been recovered from the River Shannon. These are both old finds, one consisting of a pair of arm-rings from Athlone (Graham-Campbell 1976, 68), and the other of three rings from the Clare side of the river, somewhere between Limerick and Killaloe (Sheehan 1982; 2000b, 37-8). From Britain, there is a coin hoard containing a silver rod arm-ring known from the Thames, near Deptford (Graham-Campbell 1986), which was deposited c. 935(?), as well as a single find of another plain rod arm-ring from the Solway Firth (Graham-Campbell 1995, 38, fig. 19).

The only recent riverine find from Ireland is the collection of assorted Viking silver objects (but including the gold finger-ring mentioned above) recovered from the Blackwater at Shanmullagh, Co. Armagh (Fig. 3), together with a remarkable group of book-cover mounts and shrine fragments (Bourke 1993, 24-39). The quality of the latter has so far somewhat distracted attention from the Viking material. The circumstances under which this group of material was lost or abandoned, whatever they might have been, were doubtless rather different to that just suggested: the possibility that complete rings of gold and silver might, on occasion, have been ritually deposited by their Scandinavian owners in watery places in Ireland, as elsewhere in the Viking world. Indeed, it is possible that the Shanmullagh find, rather than being a hoard per se, represents 'the stock-in-trade of a Hiberno-Viking metalworker who met with misadventure on the river', as has been suggested by Cormac Bourke (ibid., 24).

Three hoards are on record from bogs, including two from Cullen, Co. Tipperary, one of silver and the second of gold, both now lost. This bog is located on



Fig. 3—Part of the assemblage of Insular metalwork and Viking Age silver and gold objects from the River Blackwater at Shanmullagh, Co. Armagh (courtesy of the Ulster Museum, Belfast).

the Tipperary/Limerick border and has been largely cut over, surviving as a large swampy area encircled by hills. It was referred to as the 'Golden Bog' in local and antiquarian literature because of the large quantity of antiquities recovered from it, particularly during the eighteenth and nineteenth centuries (Bassett 1889, 33-5; Wallace 1938). The evidence for the silver hoard, which was first recognised as being of Viking Age date by Graham-Campbell (1976, 67), is contained in the writings of Col. Charles Vallancey (1804, 256), who, in an account of the arm-rings from the silver hoard from Hare Island, Co. Westmeath (see below), noted that 'anklets of the same kind were dug up, some years ago, in the bog of Cullen, in the county of Tipperary, and were in the possession of the Rev. Mr. Armstrong of Tipperary', who is to be identified as the Rev. John Armstrong of Tipperary town (Sheehan 1992b, 211), a contemporary of Vallancey who was described by Dr Thomas Campbell (1777, 142) as 'a gentleman curious in the antiquities of his county'. The only known evidence for the gold hoard is a reference in 1859 by Eugene O'Curry, the Gaelic scholar and Professor of Irish History and Archaeology at the Catholic University of Ireland, Dublin, in a lecture series which was later edited and published by Dr W. K. Sullivan, On the manners and customs of the ancient Irish. In a section of the book concerning the Bog of Cullen, the discovery of 'two bars of pure gold ... without any artistic feature'

is noted, as is the fact that they 'passed into the hands of a goldsmith, who, of course, has long since melted them down' (O'Curry 1873, 205). Ingots of gold of any period are of rare occurrence in Ireland, although two examples formed part of the massive late Bronze Age hoard from Mooghaun North, Co. Clare (Eogan 1983, 72). There are, however, six gold ingots or ingot fragments of Viking Age date on record from Ireland, and on this basis the Bog of Cullen examples are judged to be more probably of Viking Age date.

The third bog find is a hoard of two silver armrings discovered 'near Armagh' in the early nineteenth century. The evidence for this is contained in the sale catalogue of the Robert Day collection, where lot 460 consists of: 'Two Ring Monies, of silver . . . found by turf-cutters near to Armagh, 1832' (*Day Catalogue* 1913, 67). The subsequent fate of these rings is unknown.

Finally, there remains to be noted a gold hoard consisting of five arm-rings of two different types found during Board of Works drainage operations at Vesnoy, Strokestown Demesne, Co. Roscommon, in 1849 (Fig. 4). The drainage cut may still be identified in low-lying rushy marshland between Strokestown House and Urney Church. Wilde recorded that the hoard was found 'lying just between the gravel and turf, at a depth of six feet under the surface' (1862, 51–2; see also *Ballina Chronicle*, 4 July 1849). Both Coles (1968,



Fig. 4—Gold hoard from Vesnoy, Strokestown Demesne, Co. Roscommon. Not to scale (photo: John Sheehan).

51) and Eogan (1983, 206-7) have suggested that this hoard may be of Bronze Age date, on the basis of parallels between its components and certain bracelets of prehistoric date from Scotland and Ireland. The rings present in the hoard find ready parallel, however, amongst the corpus of Viking Age gold and silver armrings from Ireland and Scandinavia, including the gold hoard from Dromgarriff (Glengariff), Co. Cork (see below).

SMALL ISLANDS, SEASHORES AND **LAKESHORES**

Moving onto dry land, in the form of seashores, lakeshores and small islands (as opposed to actual crannogs), note must first be made of the Dromgarriff hoard, for, like the Vesnoy find, it is of gold. The evidence for it is largely contained in the correspondence of John Windele, the nineteenthcentury Cork antiquarian, which contains drawings of a pair of gold arm-rings of plain broad-band type, one of which states in its caption: '... found in 1860 in Kitchen garden of Glengariff Castle Co. Cork near the surface' (Cahill 2006, 260-3; Royal Irish Academy, MS 12.M.10, ff 791-2). Glengariff Castle, a now-levelled castellated house, was situated in Dromgarriff townland and overlooked Glengariff Harbour, on the north side

of Bantry Bay. Its kitchen garden may still be identified, now densely overgrown, on steeply sloping ground that directly overlooks the rocky seashore less than 100m to its south.

It is thus of interest that all recorded Viking Age gold hoards from Ireland, with the exception of the pair of arm-rings from High Street, Dublin (National Museum of Ireland 1973, 24, no. 10, pl. 17), have an apparent association with water or watery places. The Cullen hoard of two ingots, as noted above, derives from a bog. The Vesnoy arm-ring hoard was found during the draining of marshland. The spectacular Hare Island hoard (see below) is from an island in Lough Ree, whereas the find-spot of the Dromgarriff hoard directly overlooks an inlet of the sea. This is not, however, altogether surprising, given Hårdh's (1996, 134) observation, noted above, that Viking Age gold objects are frequently associated with watery places in Scandinavia.

The littoral location of the Dromgarriff find is strongly reminiscent of that of the fine silver hoard from Cushalogurt, Co. Mayo, discovered in 1939 (Hall 1973). It was found in a field about halfway along the northern shore of Urrisaun Point, a small peninsula within the inner reaches of Clew Bay. The field slopes down strongly to the shoreline on the north, which takes the form of a low cliff, and the find was made six yards from the shoreline. Comprising seventeen broadband arm-rings (mostly occurring as fragments), one penannular rod arm-ring and three 'bullion-rings', the weight of this find, at almost 0.6kg, distinguishes it as one of Ireland's more substantial Viking Age hoards.

Problems inevitably arise in trying to distinguish between hoards buried by the Irish themselves and those concealed by their Viking invaders. For instance, the two ninth-century silver brooches dug up in 1836 on Scattery Island, in the Shannon estuary, are both Irish in style (Graham-Campbell 1972, 117-21), suggesting that this small deposit may represent Irish treasure, given that its composition is unlike most hoards of Scandinavian character from Ireland (as these usually contain ingots and/or ornaments of Scandinavian or Hiberno-Scandinavian type, and/or hack-silver derived from these object types, with occasionally some coins as well). Indeed, given the vulnerability of this island and its monastery to Viking raiders, one might speculate that they had been buried for safety by their Irish owner(s)—and then left unclaimed—for that very reason. On the other hand, in view of the historical and onomastic evidence for the existence of an important Hiberno-Scandinavian settlement on Scattery (Sheehan et al. 2001a, 112-13), as well as the presence of two small nicks-a characteristic method for testing silver quality evident in some Scandinavian hoards (including those from Britain and Ireland)—on one of the brooches,³ it may be considered equally plausible that this small hoard represents Hiberno-Scandinavian loot.

Lough Ree, Co. Westmeath

Proceeding upriver to Lough Ree, the two (lost) hoards from Hare Island, another monastic island, present a very different picture because both consist exclusively of objects of 'Viking character',4 although such are more often known in Ireland, at least, as being of 'Scandinavian character'.5 Given the fact that gold and silver appear to have functioned somewhat differently in Scandinavian society/economy during the Viking Age, at least until reduced to bullion (in other words, it is unusual for both metals to be represented in the same deposit), it is not surprising that the two Hare Island hoards divide into one consisting exclusively of gold ornaments and the other only of silver. The latter comprises both rings and ingots, that is to say, bullion stored in such a way that it could readily be either chopped up for the equivalent of small change and/or-in the case of the ingots-converted into

In fact, the Hare Island silver hoard consisted of an unknown number of broad-band arm-rings, seemingly all of the well-known Hiberno-Scandinavian type, together with an unknown number of ingots, at least one of which was of standard elongated type but cross-

marked. This is an unusual feature, albeit one that can readily be paralleled on an ingot from Newry, Co. Down,⁶ as well as on a series of subrectangular ingots from the Cuerdale hoard in north-west England (Lewis 1982, 51–2; Graham-Campbell, forthcoming).

It is, however, the gold hoard that makes Hare Island famous in Viking studies, because its ten massive arm-rings, with a combined weight of *c*. 5kg, make it by far the largest Viking Age gold hoard on record. The illustrations of four of the rings, published by Vallancey in 1804,⁷ are of poor quality, but the well-known drawing preserved in the library of the Society of Antiquaries of London survives to demonstrate the exceptional quality of the finest of the rings.⁸ A single find of a gold finger-ring from Tundergarth, in southwest Scotland (Graham-Campbell 1995, 157–8, no. S9; forthcoming, no. 35), provides a miniaturised version of this type of ring, which reached its finest expression in the Hare Island example that was so sadly condemned to the crucible.

Graham-Campbell (1974, 272) has previously suggested that the deposition of these two hoards, only a few metres apart, might date from the period when Lough Ree was in use as a Viking base between 921/22 and 936, first by the Limerick Vikings and then by the Vikings of Lough Erne. Indeed, it is possible that the historically attested Viking longphort on Lough Ree was located on Hare Island itself, within the enclosure of the important monastic site of Inis Ainghin on the southern side of the island, and it is worth noting that Ó Floinn (1998, 161-4) has drawn attention to historical evidence for the use by the Vikings elsewhere in Ireland of ecclesiastical sites as longphuirt. To complicate the matter further, there are other possible contenders for longphort status on the lakeshore (Sheehan 2008, 284-5).

To add to this evidence from Lough Ree, there is a recent single find of an ingot at Coosan Point, within sight of Hare Island (Sheehan 1989–90, 128), as well as the more important discovery (c. 1983) of a hack-silver hoard consisting of nine fragments of arm-rings and ingots, together with one complete ingot, which was illegally recovered from a tiny natural island at Creaghduff near Killinure Point, on the eastern shore of the lake (Sheehan 1992a, 51–2). This could well be contemporary with the Hare Island hoards but it is clearly different in character, relating more directly to some of the hoards that remain to be considered.

Tynan, Co. Armagh

The existence of this fairly substantial hoard was first noted in 1861, when it was recorded in the *Ulster Gazette* (22 June 1861) that it had been found embedded in the roots of a fallen tree on the shore of the lake within the demesne of Tynan Abbey, an

eighteenth-century estate house.9 It consists of three broad-band arm-rings, one incomplete, and four rings formed from lozenge-sectioned rods. The find location is within the immediate vicinity of an early medieval ecclesiastical site, now represented by several fragments of high crosses, which had connections with nearby Armagh (Gwynn and Hadcock 1970, 409). It is therefore uncertain whether the deposition of the Tynan hoard was related to the existence of the ecclesiastical site or to the lake.

Lough Lene, Co. Westmeath

The remaining six hoards in this category (from small islands, seashores and lakeshores) are all from Westmeath, consisting of one from Lough Lene and five from Lough Ennell. It is, however, possible that the small coin hoard from Lough Lene, deposited c. 965, might have been found on a crannog (cf. the recent find to be mentioned below), but John Lindsay's report of its discovery (in 1843) states only that: 'A small parcel of Anglo-Saxon coins were in May last found at Lough Lyn, near Mullingar' (Numismatic Chronicle 6, 216; see also Dolley 1967).¹⁰

Lough Ennell, Co. Westmeath

Two of the five hoards from Lough Ennell were found by the lakeshore (at Carrick and Nure), and three on Dysart Island (nos 1, 3 and 4) (Ryan et al. 1984, 335-45). The most substantial of these is the Carrick hoard. This was found about 10m from the lakeshore and consisted of some 61 ingots, which together weigh over 31kg, making it by far the largest Viking Age silver hoard known from Ireland. It has been proposed that the hoard was associated with the high-status royal sites of the local Fir Tulach dynasty (ibid., 363). The precise location of one of these sites, known in the historical sources as Dún na Carraige, is unknown, although it is possibly to be identified with one of the ringforts in the immediate vicinity of Carrick Bay. O'Sullivan (1998, 131) has suggested that Cherry Island—an enhanced natural island with a cashel, overlooked by a ringfort on the adjacent shore—may be identified as Inis na Carraige, a Fir Tulach site that is linked with Dún na Carraige in the historical sources.

It must, however, be emphasised that these massive ingots are completely non-Scandinavian in character. Their form and weight are clearly very different from the range present in Viking Age hoards from around the Irish Sea, as well as those from Scandinavia, so that the Carrick find—in consisting exclusively of these ingots—is self-evidently a hoard of native Irish wealth, even if the silver itself would have reached Irish hands as a result of Viking activity. As a result, the Carrick hoard contrasts markedly with the most interesting of the three hoards from Dysart Island, that known

(somewhat confusingly) as Dysart no. 4.

The Dysart (no. 4) hoard contains 45 complete and fragmentary coins that enable its deposition to be dated to c. 910 (Blackburn 2007, 128). Its bullion contents consist of highly fragmented hack-silver (from a variety of sources), together with five standard ingots of Scandinavian character. Of its 109 pieces of hack-silver, 80 consist of portions of similar ingots, while the remaining 29 pieces are derived from ornaments, ranging from Baltic and Hiberno-Scandinavian armring fragments, through bits of native Irish brooches, to a tiny piece of a Norwegian trefoil-headed pin.

This is a hoard of purely Scandinavian character and, as such, one completely analogous to that buried at much the same time across the Irish Sea at Cuerdale in Lancashire (c. 905-10), despite the far greater size of the latter (Graham-Campbell 1992, 112; forthcoming). A closer parallel is perhaps the smaller hoard from Goldsborough in Yorkshire, deposited c. 925 (Gareth Williams in Graham-Campbell, forthcoming, no. 3), although this only included a couple of ingots (now lost) and an Irish-style 'thistle-brooch', together with hack-silver derived from both bossed penannular brooches and Hiberno-Scandinavian arm-rings (Graham-Campbell 1992, 112-13, fig. 9.5). But the Scandinavian character of Dysart (no. 4) reveals only the immediate source of the silver itself, for burial at this date on Lough Ennell suggests that this hoard was in native hands.

Indeed, the fact that Lough Ennell-from its islands, crannogs and shore—has now produced as many as eight silver hoards is indicative of far more than its having been a focus for illegal prospecting in recent decades. The link to royal sites in and around this historically important lake is surely the most persuasive explanation for this particular concentration of wealth.

3. CRANNOGS

On turning to silver finds from crannogs themselves, the economic sphere remains that of high-status sites. It is, however, interesting to recall that when Wood-Martin (1886) was conducting his researches during the nineteenth century there were no silver hoards on record from Irish crannogs. Neither was there much in the way of single finds of either silver or gold, although a silver pin (with an attached chain and ring) had in fact been recovered from Lagore in 1867.¹¹ Indeed, as far as one can tell, none of these finds seems to have been of 'Scandinavian character'. Even today, single finds of Viking Age silver are rare from crannogs, apart from the Hiberno-Scandinavian arm-ring fragment and a penny of Edward the Elder (901-25) which are likewise both unstratified finds from Lagore (O'Neill



Fig. 5—Silver filigree-decorated bead fragments, Monaltyduff crannog, Co. Monaghan. Scale: x3 (courtesy of C. J. Lynn).

Hencken 1950, 87, fig. 23, 81). There are, however, also two fragments of silver filigree-decorated beads, so far unique in Ireland, which were metal-detected from Monaltyduff crannog, Co. Monaghan (Fig. 5; Wood-Martin 1886, 195-6). It is all the more remarkable, therefore, that there are now ten recorded hoards from crannogs, the majority of which (seven in all) are from County Westmeath.

County Westmeath

Two of these Westmeath crannog finds comprise coin hoards, namely those from Newtownlow, deposited c. 953 (Kenny 1984), and from an unspecified crannog in Lough Lene, deposited c. 1005 (Kelly 1994, 215). The presence of such hoards on Westmeath crannogs is not entirely surprising when one considers that tenth- and early eleventh-century coin hoards from Ireland are commonest in the midlands. The characteristic type of hoard from the Westmeath crannogs is, however, a coinless one, as is emphasised by the fact that only one of the remaining crannog hoards, that from Lugacaha (Corran Island), Lough Sewdy, has a numismatic component, and then only in the form of a single coin (see below).

There are two crannog hoards from Lough Ennell, from the islands and shores of which have come the five hoards described above. Dysart (no. 2), from a submerged crannog known as Rocky Island, consists of five unique and remarkably large ingots, weighing c. 3.1kg each (Ryan et al. 1984, 337–8; Kelly 1991, 87). Together these ingots form a hoard that is amongst the heaviest known from the Viking world. When it is remembered that another huge hoard was buried just across the lake, at Carrick, one is forcefully reminded of the wealth of the Irish kings who occupied this area. The Rocky Island crannog is located in the immediate vicinity of the twin royal residences of Dún na Sciath and Cró Inis, both historically attested as belonging to the Clann Cholmáin kings of the Southern Uí Néill during the tenth and eleventh centuries (Byrne 1973, 87). The latter site is another crannog, while the former is a raised ringfort on the adjacent shore.

The second of the Lough Ennell crannog hoards, that from Ladestown, contrasts strongly with the Rocky Island find in terms of both its size and nature.

It was found in the course of an illegal search for archaeological objects on a crannog, possibly that known as Rushy Island, located off the north-western shore of Lough Ennell. Weighing just under 0.1kg, it consists of six fragments of ingot and rod, together with two complete ingots; it is thus a hoard of undoubted 'Scandinavian character', like the Dysart (no. 4) find, already noted.

Two further Westmeath hoards are on record from a crannog in Coolure Demesne, Lough Derravaragh, in the northern part of the county. Both were found during illegal searches for archaeological objects. This crannog is a very large example, and there is also a large ringfort on the immediately adjacent shore (O'Sullivan et al. 2007, 69-74). Together these two sites almost certainly constitute a royal complex associated with the Uí Fiachrach Cúile Fobhair dynasty, from which Coolure derives its name. The first hoard, Coolure Demesne 1, was found on the south-eastern side of the crannog and comprises an ingot and three ingot fragments, together with fragments of two Hiberno-Scandinavian arm-rings. Coolure Demesne 2 was found on the northern edge of the crannog and consists of a coiled arm-ring of Hiberno-Scandinavian type and three fragments of two Hiberno-Scandinavian broad-band arm-rings (Sheehan 1992a, 48-51; O'Sullivan et al. 2007, 32, figs 32-3). Nearby, although apparently unassociated with the hoard, were found two Viking Age scale-pans (from a balance) and three lead weights with ornamented mounts.

There remains for consideration a small hoard from Lugacaha (Corran Island crannog) in Lough Sewdy. This consists of two complete examples of socalled 'ring-money' of the type characteristic of Scandinavian Scotland (Graham-Campbell 1995, 57–9). These were supposedly found with a single coin of Eadmund, 12 but two single finds of ingot fragments are also known from this crannog, which are said to have been discovered separately from this hoard.

Lough Kinale, Co. Longford

This interesting silver hoard was found in the course of an illegal search on and around Ballywillan crannog in Lough Kinale, Co. Longford, a location that has also produced important items of ecclesiastical metalwork



Fig. 6—The Ballywillan hoard, from a crannog on Lough Kinale, Co. Longford. Not to scale (courtesy of the National Museum of Ireland).

(Kelly 1994, 215). It consists of 38 objects (Fig. 6), with a total weight of almost 250g; most of these are in the form of ingots, comprising five complete examples and 23 highly fragmented pieces. The ten remaining items include hack-silver fragments derived from penannular brooches of both the bossed and ball types. The fragments of bossed brooch are of particular interest because they derive from an example that is clearly related to those that form subgroup F in Johansen's classification (1973, 105, 109-12; Graham-Campbell 1975, 45-6). These are considered to be of Hiberno-Scandinavian, rather than Irish, manufacture and—like the ball-type brooches—are of importance in testifying to contact and interaction between the Hiberno-Scandinavian and native Irish silver-working traditions. The Lough Kinale hoard is of typical 'Scandinavian character' and is most closely paralleled, in terms of its overall nature, with that from Ladestown (discussed above).

Loughcrew, Co. Meath, and Rivory, Co. Cavan

The remaining two hoards for consideration were both found during the course of illegal searches. The Loughcrew find, from a crannog on Lough Creeve, consists simply of two complete ingots and a brooch fragment (Fig. 7). When complete, however, this brooch would have been an exceptionally large example of a Norwegian variant on a Baltic penannular brooch type that is characterised by faceted hoop- and terminalknobs, together with stamped decoration (cf. Peterson 1928, 186-9). The type is of rare occurrence in the west, although one other silver fragment is on record from Ireland, although unfortunately unprovenanced (Bøe 1940, 123-4, fig. 85); from England there is a fragment in the Cuerdale hoard, deposited c. 905-10 (Graham-Campbell, forthcoming), although a complete example of copper alloy is known from Scotland, found at Gogar Burn, Midlothian (Grieg 1940, 156, fig. 71).

Parts of the Rivory hoard were recovered during two separate searches of a crannog in Lough Carrafin, Co. Cavan (Fig. 8). It consists of one complete ingot and six fragments, together with one plain rod fragment and two fragments cut from two different types of Hiberno-Scandinavian arm-ring.

THE CRANNOG FINDS

It will be noted from the foregoing survey of the hoards from crannogs that these have two major characteristics: they tend to contain ingots, either in complete or hack-silver form (or both), and they only rarely contain complete ornaments. This tendency towards ingots and hack-silver is interesting and serves broadly to distinguish the crannog finds from other categories of Irish hoard. One of the authors has recently examined the relationship between different



Fig. 7—The Loughcrew hoard, from a crannog on Lough Creeve, Co. Meath (courtesy of the National Museum of Ireland).



Fig. 8—The Rivory hoard, from a crannog on Lough Carrafin, Co. Cavan (courtesy of the National Museum of Ireland).

hoard categories and various find-contexts (Sheehan 2000a; 2004; 2007). 13 This will be explored further

The 80 recorded Viking Age silver hoards from Ireland of ninth- and tenth-century date have been classified on the basis of their compositional structure, depending on the non-numismatic objects found in them, namely ornaments, ingots and hack-silver. A fivefold division of the material results:

Class 1 hoards consist of complete ornaments;

Class 2 hoards consist of complete ingots;

Class 3 hoards consist of a combination of complete ornaments and ingots;

Class 4 hoards consist of complete ornaments and/or ingots together with hack-silver;

Class 5 hoards consist of hack-silver.

This classificatory system may be used for the purpose of more detailed analysis; thus, for example, hoards which contain hack-silver (i.e. Class 4 or 5) may be further divided on the basis of whether the hack-silver element is derived from ornaments, ingots or both of these, combined with the form of any other nonnumismatic contents. When coins are also present, the number of potential permutations and combinations is inevitably increased.

Class 1 hoards account for 30% of the total, and they form the second most common type of Viking Age hoard from Ireland (after hoards consisting solely of coins). Being composed exclusively of complete ornaments, usually of arm-ring type, it is proposed that Class 1 hoards were primarily 'social' rather than 'economic' in function. They have an associative pattern with ringforts, given that the majority of those with recorded find-contexts derive from these monuments. It is worthwhile stressing that not one Class 1 hoard is on record from an ecclesiastical site and that no coin hoard is known to derive from a ringfort. Clearly, these were two different types of hoard that served different purposes, circulating in different economic and social environments.

Most of Ireland's Viking Age coin hoards were deposited during the period between c. 940 and c. 1000 and are located within those parts of the country focused on Dublin: the north Leinster and central midland regions (Kenny 1987). Hoards with a hacksilver element, however, which account for 54% of the 80 finds under consideration here, have also been found outside these regions. The fact that fewer than one third of Class 4 and 5 hoards contain coins serves to distinguish further these finds from coin (only) hoards and also isolates them, even more, from the hack-silver hoards found in Scandinavia, which are rarely without coins. Nonetheless, it seems clear that, given their nature, Class 4 and 5 hoards did serve an economic function.

The distinction between hack-silver and ornament hoards may be reinforced by consideration of those Class 4 and 5 hoards that have recorded find-contexts, for then the crannog emerges as the settlement type most strongly associated with them. When the Class 4 and 5 hoards from small islands and lakeshore locations are also included in this figure, it emerges that the majority of hoards with a hack-silver element derive from crannog or lacustrine contexts. It is perhaps not surprising, given their developing market functions, that ecclesiastical sites also feature as find-locations of these hack-silver hoards.

These observations serve as a reminder that crannogs, excavated examples of which have produced impressive quantities of other high-quality metalwork and exotic imports, are often interpreted as prestigious sites in the context of early medieval Ireland. Indeed, it has been convincingly demonstrated by Richard Warner, in particular (1994; see also O'Sullivan 1998, 136-8), that some examples served as local or regional royal centres. Several are referred to as such in the historical sources, including those at Coolure Demesne and Lough Ennell referred to above.

The association of these forms of 'economic' hoard with crannogs and crannog environments is thus of some interest, particularly when the contrasting association of 'social' hoards with ringforts is recalled. Clearly, this pattern supports the notion that there were different types, and different levels, of interaction between the Hiberno-Scandinavians and the Irish. The crannog finds from the midland region, particularly those from the Westmeath lakes, strongly suggest that there was a close economic relationship between the Hiberno-Scandinavians of Dublin and the Southern Uí Néill rulers of this area. It is therefore to be expected that this relationship should manifest itself archaeologically: it is not surprising that the types of hoard found on 'royal' sites, such as crannogs, are similar in nature to those that were presumably current in Dublin (i.e. 'economic' ones, with a hack-silver content).

THE 'WATERY' FINDS

It is generally agreed that most Viking Age hoards should be interpreted in economic terms, largely because the majority of them are composed of silver, which is accepted as having been the standard means of exchange in the Viking world, whilst allowing for the existence of 'social' hoards (such as those noted above). A small number may, however, be interpreted as ritual deposits, including some of those found in 'watery'

contexts. It is intriguing that so many hoards exist in the archaeological record, representing the fact of non-recovery as much as of deposition. If it is assumed that the majority of Viking Age hoards deposited in the ground were retrieved by their owners at some later stage, the conclusion must be that those that remained in the earth, to become part of the archaeological record, are the exceptions. Some of these exceptions might simply be the result of the faulty memories or unexpected demise of their owners, but, as we have seen, some archaeologists argue that they are better explained as representing ritual deposition (further below).

Possible evidence for the Scandinavian practice of depositing gold or silver ornaments in watery places, as offerings, occurs amongst the finds from Ireland, as noted above. These hoards from rivers, bogs, marshy places and locations overlooking water may, perhaps, have been ritual in purpose, though we cannot rule out the possibility that the deposition/loss of a number of them may simply have resulted from the use of river fording-points. On the other hand, the two Viking Age hoards from the Bog of Cullen derive from the so-called 'Golden Bog', where many rich depositions were made during the preceding millennia; in consequence, these may well represent a different phenomenon.

During the prehistoric period the nature of hoarding was fundamentally different, throughout north-western Europe and Scandinavia, to that of the Viking Age, even though these finds appear, at their most basic level, to represent the same phenomenon: the removal of objects from use or circulation by disposal. Nevertheless, the prehistoric phenomenon is normally accepted as being ritual, ceremonial or votive in nature, with these hoards—which usually comprise bronze or iron objects, and less commonly gold (sometimes accompanied by deposits of animal bone and other materials)—frequently being interpreted as offerings (Randsborg 2002, 415). Without doubt, numerous prehistoric hoards were deposited for noneconomic reasons, and reasonable explanations for this practice, involving concepts drawn from economic anthropology relating to the fundamentals of exchange, gift-giving and conspicuous consumption, are contained within the theories advanced by Gregory (1982, 59-61) and Bradley (1985, 30-3) on ritual and votive hoarding. The main basis for the difference in interpretation between prehistoric and Viking Age hoarding concerns the different forms of wealth represented by the two groups of hoards: Viking Age hoards are made up of objects representing wealth but which may also potentially serve as currency, whereas prehistoric hoards comprise precious objects which did not apparently function as currency, although they may be interpreted as representing wealth. Both types of deposit, however, share the characteristic of representing wealth, whether economic or symbolic.

In his recent consideration of the phenomenon of prehistoric wetland hoards, Randsborg (2002, 416–17) noted that they are commonly considered to be ritual or votive in nature, on the basis that their deposition in such locations as bogs and lakes is 'irrevocable'. He warns against such assumptions, however, using the evidence of early modern hoards of silver tableware, jewellery and coins from Denmark. One third of these finds, which were probably hidden by seventeenthcentury Lutheran vicars, are from wetland contexts, and clearly any suggestion that they represent ritual deposition can be dismissed. He argues that depositing finds for safe keeping in wetlands is a sensible strategy, insofar as (i) it is easy to achieve, (ii) the material is well protected and (iii) it leaves few or no surface traces. He therefore concludes by challenging the common archaeological hypothesis that wetland hoards should always be considered as ritual in nature.

On the other hand, unlike some prehistorians, archaeologists and numismatists specialising in the historic period have rarely advanced ritual as a basis for hoard interpretation. Nevertheless there is, for Viking Age hoards at least, some justification for advancing a ritual explanation on the basis of the so-called 'Odin's Law' (see below), although only a few have been interpreted within a ritual framework. In fact, it is interesting to note the apparent reluctance among some numismatists even to use the term 'ritual'. Grierson, for instance, in his general work on numismatics used the term 'abandoned hoards' to describe those finds which he considered to have been deposited without an intention to reclaim, although he himself noted that this was a 'clumsy' term (1975, 135-6). The overall tendency has been to interpret the hoards within an economic framework, with the occasional correlation of individual hoards with crisis events-two explanations that are, of course, not necessarily mutually exclusive.

It is worth noting that there could be practical social benefits connected with ritual hoarding. The deposition of wealth for the gods may have been seen as a strategy designed to reinforce the status of the donor among his peers. Gift-giving and exchange appear to have been social institutions in Scandinavian societies, within which the donor's status and authority was enhanced (cf. Samson 1991; Graham-Campbell 2000). So-called 'ritual hoarding' may have been regarded as a way of achieving the same objective, without the potentially attendant problem of entering into a competitive gift-giving cycle and with the additional benefit of gaining the reputation of having a good relationship with the gods.

'Odin's Law', as recounted by the Icelandic

historian Snorri Sturluson, states that men would enjoy in their afterlife the treasures which they had themselves buried, but because this is recorded only in a thirteenth-century source there is inevitably uncertainty as to whether, where and when it was actually practised in the Viking world (Zachrisson 1998, 20). It is possible that it may, to some extent, simply reflect a religious rationalisation of a previous or contemporary practice. Nevertheless, it does provide some justification for advancing a ritual explanation for hoarding. This is particularly so when Snorri's full statement, which also concerns cremation of the dead, is taken into consideration:

'Thus he [Odin] established by law that all dead men should be burned, and their belongings laid with them upon the pile, and the ashes be cast into the sea or buried in the earth. Thus, said he, everyone will come to Valhalla with the riches he had with him upon the pile; and he would also enjoy whatever he himself had buried in the earth' (Heimskringla 1.8; Laing and Foote 1961, 12-13).14

Archaeological evidence from throughout the Viking world reflects the distinction that is made here between grave-goods and separately buried wealth: Viking Age grave-goods only rarely include silver or gold objects. Graham-Campbell, however, has argued that, in the case of Scotland at least, 'Odin's Law' is not relevant as an explanation for hoard deposition, given that this practice appears to have become established only after 'pagan' burial had ceased (Graham-Campbell 1995, 61; Graham-Campbell and Batey 1998, 245). The demise of pagan burial practices does not, however, necessarily imply the contemporary demise of all related beliefs.

There are several instances in the Icelandic sagas that might be considered to lend some literary support to the notion of hoarding contained in 'Odin's Law'. Most notably, in the thirteenth-century Egils saga (Fell 1975) there are two accounts of relevance: one concerning Skalla-Grim, Egil's father, and the other about Egil himself. Before Skalla-Grim died, he is said to have taken a chest of silver and a bronze cauldron to a marsh, where 'afterwards men held it as a fact' that he had 'let one or both of them drop' (ibid., 102); the saga goes on to relate how Egil buried him in a mound 'with his horse and his weapons and his smith's tools', although there was no record of any money having been 'put into the mound with him'. Not long before Egil himself died, he did something similar—and then he, in turn, was laid in a 'mound with his weapons and clothing' (ibid., 170).

It is not possible, however, to judge whether accounts of this type were written by way of recalling an actual (ancient) ritual practice or were simply

literary devices to demonstrate the (pagan) religious character of the saga heroes. After all, there needed to be some explanation for the occasional discovery of silver in Iceland; in the latter context, Egils saga states

'To the east of the farm of Mosfell a ravine runs down the hill, and it has been noticed that in rapid thaws the water comes flooding down, and afterwards when the water has subsided English coins have been found in the ravine. Some men guess that Egil must have hidden his money there.'

It follows that, if some hoards were actually consigned to the ground in accordance with Odin's perceived stricture, then they were obviously not intended for recovery and might therefore be reflected archaeologically in some way, either inherently or contextually. A prime example of this is represented by hoards from graves, which are known in small numbers in both Scandinavia and the West. For instance, a coin hoard, the deposition of which is dated to c. 870, was found 'in a coffin' in the churchyard of St Mary's Minster, Reading, which presumably relates to the fact that the 'Great Army' had its winter quarters there during 870/1 (Biddle and Blair 1988; Graham-Campbell 2004, 38). On the other hand, several Viking Age hoards from Christian cemeteries are not in fact known to have accompanied burials. These include five deposited in the Isle of Man—c. 960 at Ballaqueeney; c. 970 and c. 1045 at Andreas; c. 1065 and c. 1075 at Kirk Michael (Graham-Campbell 1983; Bornholdt Collins 2003, M1, M5, M11, M14 and M17)—and two in Ireland: c. 953 at Monasterboice, Co. Louth (Wright 1748, 17), and at Churchfield (Knock), Co. Mayo (Sheehan 1998, 200). It is possible that the important hoard, datable to the late tenth century, from 'Marl Valley' near Mullingar, Co. Westmeath, derives from a grave, but there is no certainty as to its exact findcontext (Graham-Campbell 1976, 61).

In general terms, Viking Age hoards from 'pagan' graves are almost the only ones that were, without doubt, deposited for reasons of ritual. There is, however, an obvious Christian exception in the case of the coin hoard that was deposited as an offering, c. 1035, in a foundation trench for the stone church of St Jørgensbjærg in Roskilde, Denmark (Glob 1980, no. 38; Graham-Campbell 2000, 14).

Silver and gold, whether deposited as single ornaments or in hoards, are only very rarely encountered in graves. The reason for this may have been to avoid grave-robbing, a practice which is well documented archaeologically in Scandinavia. It seems more likely, however, that silver was not usually abandoned in the form of grave-goods so as to avoid

placing this increasingly important standard means of exchange beyond permanent use. Graham-Campbell (1982, 33) has observed that silver may have been 'considered too valuable to be abandoned to the dead, regarded perhaps as farm or family wealth to be inherited like land'.

In Scandinavia, and elsewhere in the Viking world, both hoards and single finds are on record as having been found in bogs and other watery places, and it has occasionally been suggested that these circumstances imply that these were ritual offerings. Probably the most spectacular of these is the collection of objects, including weapons and brooches, from Lake Tissø, Sjælland, Denmark, which Jørgensen has proposed (as noted above) were deposited as offerings to the god Tyr. The possible deposition of a chest of silver by Skalla-Grim in a marsh, as just described, might also support the notion of hoards being deposited in wet locations for ritual reasons. In Denmark, spectacular examples of Iron Age bog sacrifices of various kinds may have influenced this type of practice. The notion has been dismissed by Randsborg (1980, 139) on the basis that none of the Danish hoards was accompanied by animal bones or other indications of offerings, but here he may be ascribing to putative Viking Age ritual hoards the characteristics of earlier cult practices.

In the case of Scotland's hoards, Armit (1996) has proposed that much of the material was consigned to the ground for ritual purposes. His reasons for this view include 'the act of burial in the ground with its concomitant difficulties of relocation, the bizarrely low recovery rate by the original owners, and the frequent choice of remote places', which, in his opinion, 'all seem to make more sense in the context of ritual offerings than pragmatic storage' (*ibid.*, 195). It is, however, difficult to concur with his conclusion because he does not discuss the issues further or present data in support of his individual points, which conflict with the opposing arguments advanced by Graham-Campbell (as outlined above).

It is impossible to quantify how common was the practice of ritual 'hoarding', in the sense of the burial of wealth without the intention of recovery, during the Viking Age. In order to do so one would have to be able to demonstrate an intention—the intention of non-recovery—and this can only manifest itself archaeologically in rare cases. It is possible, of course, that specific types of objects were selected for inclusion in ritual 'hoards', chosen because of their social or symbolic value rather than, or over and above, their intrinsic worth. Thus one might expect complete ornaments and coins to constitute such deposits, rather than ingots or hack-silver, and this would be recognisable archaeologically. It would not, however, be a sufficient factor on its own to cause a particular find

to be deemed ritual in nature; further evidence, perhaps specifically relating to the broader archaeological context of the deposit, would be necessary. Given these difficulties in identification, it is conceivable that Viking Age ritual 'hoards' were more common than has been generally accepted to date, and that at least some of the 'watery' finds noted in this paper were indeed ritual deposits.

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BIBLIOGRAPHY

- Armit, I. 1996. *The archaeology of Skye and the Western Isles*. Edinburgh.
- Bassett, G.H. 1889. Co. Tipperary, a guide and directory 1889. Dublin.
- Biddle, M. and Blair, J. 1988. The Hook Norton hoard of 1848: a Viking burial from Oxfordshire? *Oxoniensia* 52, 186–95.
- Bjørn, A. and Shetelig, H. 1940. Viking antiquities in Great Britain and Ireland (ed. H. Shetelig), Part 4. Viking antiquities in England, with a supplement of Viking antiquities on the continent of western Europe. Oslo
- Blackburn, M. 2007. Currency under the Vikings. Part 3: Ireland, Wales, Isle of Man and Scotland in the ninth century. *British Numismatic Journal* 77, 119–49.
- Blackburn, M. and Pagan, H. 1986. A revised checklist of coin-hoards from the British Isles, c. 500–1100. In M.A. S. Blackburn (ed.), Anglo-Saxon monetary history: essays in memory of Michael Dolley, 291–331. Leicester. (Cf. updated online version at http://www.fitzmuseum.cam.ac.uk/coins/hoards/.)
- Boe, J. 1940. Viking antiquities in Great Britain and Ireland (ed. H. Shetelig), Part 3. Norse antiquities in Ireland. Oslo.
- Bornholdt Collins, K.A. 2003. Viking-age coin finds from the Isle of Man: a study of coin circulation, production and concepts of wealth. Unpublished Ph.D thesis, University of Cambridge.
- Bourke, C. 1993. Patrick: the archaeology of a saint. Belfast.
- Bradley, R. 1985. Consumption, change and the archaeological record: the archaeology of deliberate deposits.

 Occasional Paper 13, Department of Archaeology, University of Edinburgh.

- Briggs, C.S. and Sheehan, J. 1987. A hoard of dispersed Viking-age arm-rings from the Liffeyside, Co. Dublin. Antiquaries Journal 67, 351-3.
- Byock, J., Walker, P., Erlandson, J., Holk, P., Zori, D., Gudmundsson, M. and Tveskov, M. 2005. A Vikingage valley in Iceland: the Mosfell archaeological project. Medieval Archaeology 49, 195-218.
- Byrne, F.J. 1973. Irish kings and high-kings. Dublin.
- Cahill, M. 2006. John Windele's golden legacyprehistoric and later gold ornaments from Co. Cork and Co. Waterford. Proceedings of the Royal Irish Academy 106C, 219-337.
- Campbell, T. 1777. A philosophical survey of the south of Ireland in a series of letters to John Watkinson, M.D. London.
- Coles, J.M. Scottish early Bronze Age 1968. metalwork. Proceedings of the Society of Antiquaries of Scotland 93, 1–110.
- Day Catalogue 1913. Catalogue of the Day collection, Sotheby's, 19-22 May 1913. London.
- Dolley, R.H.M. 1967. Lough Lene find of 1843. Coins and Medals (June 1967), 336-9, 355, 357.
- Eldjárn, K. (rev. A. Friðriksson) 2000. Kuml og haugfé. Akureyri (1956).
- Eogan, G. 1983. Hoards of the Irish later Bronze Age. Dublin.
- Farrell, R.T., Kelly, E.P. and Gowan, M. 1989. The Crannog Archaeological Project (CAP), Republic of Ireland I: a pre-preliminary report. International Journal of Nautical Archaeology and Underwater Exploration 18 (2), 123-36.
- Fell, C. (trans. & ed.) 1975. Egils saga. London/Toronto.
- Glob, P.V. (ed.) 1980. Danefæ. Copenhagen.
- Graham-Campbell, J.A. 1972. Two groups of ninthcentury Irish brooches. Journal of the Royal Society of Antiquaries of Ireland 102, 113-28.
- Graham-Campbell, J.A. 1974. A Viking age gold hoard from Ireland. Antiquaries Journal 54, 269-72.
- Graham-Campbell, J.A. 1975. Bossed penannular brooches: a review of recent research. Medieval Archaeology 19, 33-47.
- Graham-Campbell, J.A. 1976. The Viking-age silver hoards of Ireland. In B. Almqvist and D. Greene (eds), Proceedings of the Seventh Viking Congress, Dublin 1973, 39-74. Dublin.
- Graham-Campbell, J. 1980. Viking artefacts: a select catalogue. London.
- Graham-Campbell, J. 1982. Viking silver hoards: an introduction. In R. T. Farrell (ed.), The Vikings, 32-41. London.
- Graham-Campbell, J. 1983. The Viking-age silver hoards of the Isle of Man. In C. Fell et al. (eds), The Viking Age in the Isle of Man, 53-80. London.
- Graham-Campbell, J. 1986. The re-provenancing of a

- Viking-age hoard to the Thames, near Deptford (S.E. London). British Numismatic Journal 56, 186-7.
- Graham-Campbell, J. 1992. The Cuerdale hoard: comparisons and context. In J. Graham-Campbell (ed.), Viking treasure from the north west: the Cuerdale hoard in its context, 107-15. Liverpool.
- Graham-Campbell, J. 1995. The Viking-age gold and silver of Scotland (AD 850-1100). Edinburgh.
- Graham-Campbell, J. 2000. The power of silver. In E. Roesdahl and P. Meulengracht Sørensen (eds), Beretning fra nittende tværfaglige symposium, 7–20. Højbjerg.
- Graham-Campbell, J. 2004. The archaeology of the 'Great Army' (865-79). In E. Roesdahl and J. P. Schjødt (eds), Beretning fra treogtyvende tværfaglige vikingesymposium, 30-46. Højbjerg.
- Graham-Campbell, J. 2007. Reflections on 'Silver economy in the Viking Age'. In J. Graham-Campbell and G. Williams (eds), Silver economy in the Viking Age, 215-23. Walnut Creek, CA.
- Graham-Campbell, J. (forthcoming). The Cuerdale hoard and related Viking-age silver and gold, from Britain and Ireland, in the British Museum. London.
- Graham-Campbell, J. and Batey, C.E. 1998. Vikings in Scotland: an archaeological survey. Edinburgh.
- Gregory, C. 1982. Gifts and commodities. London.
- Grieg, S. 1940. Viking antiquities in Great Britain and Ireland (ed. H. Shetelig), Part 2. Viking antiquities in Scotland. Oslo.
- Grierson, P. 1975. Numismatics. Oxford.
- Gwynn, A. and Hadcock, R.N. 1970. Medieval religious houses: Ireland. Dublin.
- Hall, R. 1973. A hoard of Viking silver bracelets from Cushalogurt, Co. Mayo. Journal of the Royal Society of Antiquaries of Ireland 103, 78–85.
- Hall, R. 2007. Exploring the world of the Vikings. London.
- Hårdh, B. 1996. Silver in the Viking Age: a regionaleconomic study. Acta Archaeologica Lundensia, Series in 8°, 25. Stockholm.
- Johansen, O.S. 1973. Bossed penannular brooches: a systematisation and study of their cultural affinities. Acta Archaeologica 44, 63-124.
- Jørgensen, L. 2003. Manor and market at Lake Tissø in the sixth to eleventh centuries: the Danish 'productive' sites. In T. Pestell and K. Ulmschneider (eds), Markets in early medieval Europe: trading and 'productive' sites, 650-850, 175-207. Macclesfield.
- Kelly, E.P. 1991. Observations on Irish lake dwellings. In C. Karkov and R. Farrell (eds), Studies in Insular art and archaeology, 81-99. American Early Medieval Studies 1. Ohio.
- Kelly, E.P. 1993. Treasure-hunting in Ireland—its rise and fall. Antiquity 67, 378-81.
- Kelly, E.P. 1994. Protecting Ireland's archaeological

- heritage. International Journal of Cultural Property 2 (3), 213-25.
- Kenny, M. 1984. A find of Anglo-Saxon pennies from Newtownlow, Co. Westmeath. Ríocht na Midhe 7 (3), 37-43.
- Kenny, M. 1987. The geographical distribution of Irish Viking-age coin hoards. Proceedings of the Royal Irish Academy 87C, 507-25.
- Laing, S. and Foote, P. 1961. Snorri Sturluson, Heimskringla 2. London.
- Lewis, J. 1982. Silver ingots from the Cuerdale hoard in two northern collections. Lancashire Archaeological *Journal* 2, 47–80.
- National Museum of Ireland 1973. Viking and medieval Dublin. Dublin.
- O'Curry, E. 1873. On the manners and customs of the ancient Irish. London.
- O Floinn, R. 1998. The archaeology of the early Viking Age in Ireland. In H. B. Clarke et al. (eds), Scandinavia and Ireland in the early Viking Age, 131-65. Dublin.
- O'Neill Hencken, H. 1950. Lagore crannog: an Irish royal residence of the 7th to 10th centuries A.D. Proceedings of the Royal Irish Academy 53C, 1–247.
- O'Sullivan, A. 1998. The archaeology of lake settlement in Ireland. Discovery Programme Monographs 4. Dublin.
- O'Sullivan, A., Sands, R. and Kelly, E.P. 2007. Coolure Demesne Crannog, Lough Derravaragh: an introduction to its archaeology and landscapes. Bray.
- Peterson, J. 1928. Vikingetidens smykker. Stavanger.
- Randsborg, K. 1980. The Viking Age in Denmark. London.
- Randsborg, K. 2002. Wetland hoards. Oxford Journal of Archaeology 21 (4), 415-18.
- Roesdahl, E. 2003. What may we expect? On the problem of Vikings and archaeology in Normandy. In A.-M. Flambard Héricher (ed.), La progression des Vikings, des raids à la colonisation, 207–11. Rouen.
- Ross, M.C. 1961. Arts of the Migration Period in the Walters Art Gallery, Baltimore. Baltimore.
- Ryan, M., Ó Floinn, R., Lowick, N., Kenny, M. and Cazalet, P. 1984. Six silver finds of the Viking period from the vicinity of Lough Ennell, Co. Westmeath. Peritia 3, 334-81.
- Samson, R. (ed.) 1991. Social approaches to Viking studies. Glasgow.
- Sheehan, J. 1982. A Viking-age silver hoard from the River Shannon, Co. Clare. North Munster Antiquarian Journal 24, 89-91.
- Sheehan, J. 1989-90. A Viking-age silver arm-ring from Portumna, Co. Galway. Journal of the Galway Archaeological and Historical Society 42, 125-30.
- Sheehan, J. 1992a. Coiled armrings: an Hiberno-Viking silver armring type. Journal of Irish

- Archaeology 6, 41–53.
- Sheehan, J. 1992b. The Rathmooley hoard and other finds of Viking-age silver from Co. Tipperary. Tipperary Historical Journal 5, 210-16.
- Sheehan, J. 1998. Early Viking-age silver hoards from Ireland and their Scandinavian elements. In H. Clarke et al. (eds), Scandinavia and Ireland in the early Viking Age, 166–202. Dublin.
- Sheehan, J. 2000a. Ireland's early Viking-age silver hoards: components, structure and classification. In S. Stummann Hansen and K. Randsborg (eds), Vikings in the West (= Acta Archaeologica (Supplementa II) 71), 49–63.
- Sheehan, J. 2000b. Viking-age silver and gold from County Clare. In C. Ó Murchadha (ed.), County Clare studies, 30-41. Ennis.
- Sheehan, J. 2004. Social and economic integration in Viking-age Ireland: the evidence of the hoards. In J. Hines et al. (eds), Land, sea and home, 177-88. Society of Medieval Archaeology Monograph 20. Leeds.
- Sheehan, J. 2007. The form and structure of Vikingage silver hoards: the evidence from Ireland. In J. Graham-Campbell and G. Williams (eds), Silver economy in the Viking Age, 149-62. Walnut Creek, CA.
- Sheehan, J. 2008. The *longphort* in Viking Age Ireland. Acta Archaeologica 79, 282–95.
- Sheehan, J. (forthcoming). The character and cultural context of the Inis Cáthaig/Scattery Island silver hoard. The Other Clare.
- Sheehan, J., Stummann Hansen, S. and Ó Corráin, D. A Viking-age maritime haven: a 2001a. reassessment of the island settlement at Beginish, Co. Kerry. Journal of Irish Archaeology 10, 93–119.
- Sheehan, J., Stummann Hansen, S. and Sikora, M. 2001b. Retracing Ireland's lost archaeology: J.J.A. Worsaae (http://publish.ucc.ie/cocoon/doi/worsaae).
- Vallancey, C. 1804. Of golden implements and ornaments of gold and silver found in Ireland. Collectanea de Rebus Hibernicis VI (ii), 237-89.
- Wallace, J.N.A. 1938. The Golden Bog of Cullen. North Munster Antiquarian Journal 1, 89–101.
- Warner, R. 1994. On crannogs and kings. Ulster Journal of Archaeology 57, 61-9.
- Wilde, W.R. 1862. A descriptive catalogue of the antiquities of gold in the Museum of the Royal Irish Academy. Dublin.
- Wood-Martin, W.G. 1886. The lake dwellings of Ireland. Dublin/London.
- Wright, T. 1748. Louthiana, vol. 3. London.
- Zachrisson, I. 1998. Gård, gräns, gravfält: sammanhang kring ädelmetalldepåer och runstenar från vikingetid och tidigmedeltid i Uppland och Gästrikland. Stockholm.

NOTES

- ¹ This joint paper originates in one delivered by James Graham-Campbell, with John Sheehan's assistance, on the occasion of the conference organised by Dr Niall Brady in the National Museum of Ireland (in 2004) in memory of Professor Robert Farrell (Cornell University) and his contributions to the 'Crannog Archaeological Project', which he was instrumental in establishing in 1987 (Farrell et al. 1989).
- ² The compound *flodeng* is not given in the Danish-English Dictionary (J. Magnusson, O. Madsen and H. Vinterberg; 5th edn, revised by H. Vinterberg and B. Ladgaard, 1947), on the basis of which it might be suggested that this should be emended to flod[s]eng, which has the meaning of 'river-bed' (p. 81). The ring may be identified as NMI W.96 (Fig. 2).
- ³ British Museum reg. no. 1872,5-20,15. See also Graham-Campbell, forthcoming, no. 10 and Sheehan, forthcoming.
- ⁴ Following the definition used in Graham-Campbell, forthcoming: 'manufactured in a Scandinavian tradition (whether or not imported from Scandinavia)'.
- ⁵ For a brief discussion on the use of terms such as 'Viking', 'Scandinavian', etc. in Ireland, see Sheehan et al. 2001a, 93-4.
- ⁶ This ingot, NMI W.3, is published as an

- unprovenanced find by Bøe (1940, 107, fig. 73,d); it was identified as part of a hoard, provenanced to Newry, by Sheehan (1998, 199).
- ⁷ These illustrations are reproduced in Graham-Campbell 1974, pl. lii, a & b.
- ⁸ *Ibid.*, pl. liii.
- ⁹ It has recently been stated by Richard Hall (2007, 126) that this hoard perished in 1981 when Tynan Hall was destroyed; this is, happily, not the case and the find remains in private possession.
- ¹⁰ Unless otherwise stated, all deposition dates for hoards with coins in this paper are after Blackburn and Pagan 1986.
- 11 This is first recorded at the sale of Robert Day's collection (Day Catalogue 1913, lot 485, pl. xviii); it is now in the Walters Art Gallery, Baltimore (Ross 1961, 108, no. 52).
- ¹² See British Numismatic Journal 58 (1988), 154, no. 159.
- ¹³ See also comments on this work by Graham-Campbell (2007, 218-21).
- ¹⁴ It is important to bear in mind, however, that Snorri cannot have been transmitting a native tradition because it does not appear that cremation was normally practised in Iceland during the Viking Age (cf. Eldjárn 2000), although an important example has recently been excavated at Mosfell (Byock et al. 2005, 214-17).