In last year’s address I looked at the circulation of coinage among the Scandinavians in the Celtic areas to the west and north of the British Isles during the ninth and tenth centuries. I suggested that their monetary economies were closer to those of Scandinavia than that of the Danelaw, largely because there was no strong pre-existing tradition of local coinages on which the Scandinavians could build. It may be no coincidence, then, that at the end of the tenth century, just when national coinages commenced in Denmark, Sweden and Norway, the Scandinavians in Dublin also inaugurated their own independent coinage – the most enduring of those that would be issued by Scandinavians in the British Isles.¹

We are fortunate that numismatics is a dynamic subject in which new evidence often occurs to extend or challenge our knowledge. Four years ago, in March 2003, to mark the twentieth anniversary of Michael Dolley’s death, I gave a lecture here to the Society about the nature of the Hiberno-Scandinavian currency reforms, and discussed in particular the three new hoards found during excavations in Dublin in the early 1990s.² By chance, on that same day, 25 March 2003, a new hoard was discovered in Glenfaba sheading on the Isle of Man, which was to be the largest and most important hoard of Hiberno-Scandinavian coins found since 1836, when the Dunbrody hoard was discovered. This new Glenfaba hoard contains 464 coins and is especially important for the study of Dolley’s Phase II and the beginning of the Hiberno-Manx coinage.³ It addresses, for example, an outstanding question about the date of the introduction of Phase II that I discussed on that evening. In this paper, after considering the general characteristics of the Dublin coinage over its 150-year history, I will concentrate on the first half century from its introduction in c.995 to the mid-eleventh century, and new perspectives cast by recent finds.

Historical background

Some of the defensive camps or Longphorts established by the Vikings in the mid-ninth century turned into permanent settlements during the later ninth century and into towns in the tenth century. Dublin was the most substantial of these and the centre of the most dominant Scandinavian kingdom in the Western part of the British Isles.⁴

The Vikings came as aggressors, became settlers, but then the tables were turned. The Scandinavians had been driven out of Dublin in 902 and returned in 917, but the town was attacked by the Irish thirteen times between 936 and 1015, and on many of these occasions taken by them. Increasingly, the Scandinavians interacted politically rather than militarily in

¹ This is a revised and extended version of the paper read at the Anniversary Meeting in November 2007. I wish to thank Dr Kristin Bornholdt Collins for advice on Manx and Irish finds and comments on this paper in draft, and Dr Stewart Lyon for stimulating correspondence and discussions on the Dublin coinage over many years. Dr Elina Screen has also made helpful suggestions while editing this.
² Michael Dolley died 29 March 1983; the lecture was given on 25 March 2003. The lecture was not published, but the present article has been revised and extended to incorporate elements from it and from another lecture that I gave to the Fifteenth International Viking Congress in Cork in 2005.
³ A full report on the coins is in preparation by Dr Bornholdt Collins, and I am grateful to her for allowing me to draw upon the evidence of the hoard in advance of her publication.
Irish affairs. The king of Dublin, Anlaf Sihtricsson, who had ruled at York in the 940s, married an Irish princess, Gormlaith, daughter of the king of Leinster, and it was their son Sihtric ‘Silkbeard’ (989–1036), who ruled over Dublin for more than 45 years, and who initiated the coinage. His family was intimately woven into several of the Irish royal lines, for after Anlaf’s death his mother married no less a figure than Brian Boru, high-king of Ireland, and after his death at the battle of Clontarf in 1014, she married his successor as high-king, Mael Sechnaill. But this latter had already had a wife who was a daughter of Anlaf Sihtricsson, and a half-sister of Sihtric. Thus Mael Sechnaill was both stepfather and brother-in-law to Sihtric. Sihtric encouraged the conversion of his people to Christianity, and by the end of his reign he had established a cathedral in Dublin in Christ Church.

The late tenth and earlier eleventh centuries was a period of flux for Dublin and its neighbours. The on-going feud between the Scandinavians of Dublin and those of Waterford, brought to a head over the disputed succession following the death in 989 of Gluniairn, king of Dublin, was exploited by the Irish kings. In 989 Mael Sechnaill, overking of the Southern Uí Néill, attacked Dublin and levied a tax on the inhabitants. Twice before 995 Ivar, king of Waterford, seized control of Dublin, but was expelled by Sihtric with the support of the king of Leinster, and in 995 Mael Sechnaill captured the regalia of the Dublin kings, the ‘Sword of Carlus’ and the ‘Ring of Thorir’. In 997 and 998, Mael Sechnaill and Brian Boru, having divided Ireland between them, took hostages from Dublin and Leinster. In 999, Dublin and Leinster led by Sihtric revolted against the domination that this act represented, but they were heavily defeated at the battle of Glen Máma, Dublin was sacked and burnt, and Sihtric was forced to recognise Brian Boru’s overlordship. For the next decade that status quo was accepted, and Brian mobilised Dubliners in support of his campaigns elsewhere in Ireland. In 1012 Dublin and Leinster once again wanted to flex their muscles and throw off the domination of the overkings. There were skirmishes during the following two years leading up to a spectacular battle on Good Friday 1014 at Clontarf a few miles south of Dublin. Although Brian Boru was killed, it was a massive defeat for the Scandinavians and men of Leinster. Dublin had become and remained a pawn passing between rulers eager to demonstrate their supremacy over all Ireland, and, more than that, its taxes, troops and fleet were a practical aid towards achieving that goal. It is against this turbulent background that Sihtric established and developed what in the circumstances was a surprisingly coherent coinage.

Although still a town with a distinct Scandinavian culture, increasingly Dublin became an integral part of the fabric of Ireland. One can understand, then, why historians and archaeologists refer to Dublin as ‘Viking’ or ‘Scandinavian’ until c.980, but thereafter, as a distinctive local culture emerged, to ‘Hiberno-Norse’ or, more commonly now, to ‘Hiberno-Scandinavian’ Dublin, for the blending of people of Norwegian, Danish, Danelaw and Irish origin was considerable.

Numismatic literature

The recognition that there was a coinage of the Scandinavians in Ireland dates back to the mid-seventeenth century in the work of Sir James Ware; however the first substantial discussion of the coinage was that of James Simon in 1749, which illustrated some thirty-seven coins he considered Irish, several of which were correctly attributed to Sihtric ‘Silkbeard’. The next advance in the subject came in 1839 with the publication of John Lindsay’s View of the Coinage of Ireland, but although this lists much more material and refers to several hoards, the interpretation is seriously flawed due to Lindsay’s zeal for attributing, or mis-attributing, coins to a range of kings from the ninth to eleventh centuries. In the later

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5 Dolley argued for a succession date of 994 for Sihtric (Dolley 1973, 148–9, 152; citing Curtis 1950, 27) but this has not been followed by most historians, who see Sihtric as the direct successor of Gluniairn (d. 989); see most recently Downham 2007, 57.
8 Ware 1654; Simon 1749.
9 Lindsay 1839.
nineteenth century, articles by Aquilla Smith and the Finnish scholar, Otto Alcenius, made useful contributions, the latter, for example, recognising that the coins of Dublin in the name of Æthelred II were merely imitations. Moving into the twentieth century, the bumper ninety-page article by Bernard Roth, ‘The coins of the Danish kings of Ireland’, in *BNJ* 1909, is an immense disappointment, for although he illustrates some 240 coins photographically, a substantial number are Scandinavian (which he admits he had been warned about by L.E. Bruun), while their order is rather chaotic, and the text makes little attempt to discuss the nature, structure or chronology of the coinage. By contrast William O’Sullivan’s 1949 paper on ‘The Earliest Irish Coinage’ is more scholarly, but its aim was limited to producing essentially a catalogue of types, without putting them into chronological order.

Thus when in the early 1960s Michael Dolley turned his attention to this series, he had almost a blank canvas, with a wealth of material that was ripe for study, particularly in the light of the advances recently made in the late Anglo-Saxon coinage. The result of just a few years’ work was his magisterial 1966 *Sylloge of the Hiberno-Norse Coins in the British Museum*. Its scope is wider than its title implies, for it surveys all hoards from the entire British Isles from the ninth to early twelfth centuries, and then looks in greater detail at the twenty-six that contain Hiberno-Scandinavian coins. Their analysis forms the basis for the chronological structure that Dolley places on the coinage, which he divides into seven fundamental phases. The book is admittedly difficult to use, for he was too deferential to O’Sullivan, discussing the coinage in O’Sullivan’s type order, but the work is enormously original and his judgements have by and large stood the test of time.

Since 1966 there have been further advances, most notably by Dolley himself who continued to produce articles and short notes clarifying the attribution of certain coins as between England, Scandinavia and Dublin, compiling virtually a corpus of the first Dublin issue (Crux type), identifying an independent Hiberno-Manx coinage, and publishing additional material from hoards, notably those from the Isle of Man. Kristin Bornholdt Collins built upon this latter work, making the Manx finds and coinage the subject of her doctoral thesis. Michael Kenny has published a number of new hoards, including Dundalk, Collinstown, Tonyowen and Clonmacnoise, but his most significant contribution has been his Royal Irish Academy paper on the pattern of coin hoards as evidence of coin use among the Irish. The same topic was also discussed by Margaret Gerriets. Together they have convincingly overturned one of the long-held assumptions – which Dolley also followed – that the Irish did not use coinage and that coin hoards could be taken as evidence of a local Viking presence. Gerriets also published an interesting assessment of the use of money in pre-Viking Ireland based on the evidence of the plentiful Irish law tracts, from which she concluded that goods and wealth were exchanged by social means rather than in market transactions. Work on the non-coin element of the Viking-Age silver hoards by James Graham-Campbell and John Sheehan has given us a more balanced view of the economy, which was considered in more detail in my last Address.

Since Dolley’s death in 1983 there has been little research on the Dublin coinage itself. Robert Heslip produced an historiographic survey of the Hiberno-Scandinavian coinage, and in collaboration with Peter Northover he organised a programme of metallic analyses of Hiberno-Scandinavian coins in the Ulster Museum, showing that a high silver content was

10 Smith 1882 and 1883; Alcenius 1901, 23–6.
11 Roth 1909.
12 O’Sullivan 1949.
13 Dolley 1966.
14 Dolley 1972, 1973b, 1975a, 1976a; and other articles listed in Dolley’s bibliography (Thompson 1986).
17 Gerriets 1985a.
18 Gerriets 1985b.
maintained throughout the coinage.\footnote{Heslip 1985; Heslip and Northover 1990.} Bill Seaby's Sylloge of the Ulster Museum collection substantially increased the number of published coins available for study.\footnote{Seaby 1984.} He had undertaken with great labour a die-study of virtually the whole of the Hiberno-Scandinavian series, and relevant die-links are recorded in the Belfast Sylloge and some hoard reports,\footnote{Seaby 1984 and 2002; Blackburn and Seaby 1976.} but unfortunately since his death in 1991 the notes on his die-study have not been located. Lastly, I have contributed die-studies of two of the issues in Phase I – the Helmet and Quatrefoil types – while distinguishing a separate imitative series associated with the Irish Sea area.\footnote{Blackburn 1990a and 1996.} The most important new evidence to have come to light are the finds from the Dublin excavations from the 1960s onwards – almost a hundred single-finds and three large hoards – but they are still essentially unpublished apart from a summary listing of the single-finds in Patrick Wallace's contribution to the Dolley Memorial volume.\footnote{Wallace 1986.}

With three major collections, London, Copenhagen and Belfast, already published in the SCBI series,\footnote{Galster, Dolley and Steen Jensen 1975; Seaby 1984.} and those of the Manx Museum and the National Museum of Ireland in preparation by Bornholdt Collins, and Stockholm by myself, before long the source material for the Hiberno-Scandinavian coinage will have been exceptionally well published – better perhaps than any other comparable coinage of medieval Europe. The time will then truly be ripe for a detailed study and reassessment of the entire series, set in its historical and economic context.

The nature of the coinage and its seven phases

The Hiberno-Scandinavian coinage consists exclusively of silver pennies, typical of the currency of north-west Europe at that time. No struck halfpennies have been identified in the series, but none were produced in England either, except for a brief issue during the reign of Henry I (1100–35). The great majority of the coins are uninscribed, or at least have meaningless pseudo-epigraphy. Only in the very earliest issues are there legible inscriptions, and some of those are copied directly from Anglo-Saxon coins. Where the inscriptions are purposeful, they name Sihtric as king of the Dubliners, and on the reverse the mint name of Dublin and a handful of what we may take to be local moneyers. In the earliest issue, Crux, the obverse legend takes the form \textit{SITI RX DIFLINME}, variously abbreviated,\footnote{Dolley 1973b, 50–1.} while in the Long Cross and later issues the inscription reads \textit{SIHTRC RE+ DYFLMN}, or versions of it.\footnote{Hildebrand 1886, 484–5.} Two of the most interesting forms of obverse inscription occur on rare instances where an English die-cutter had been commissioned to make dies for use in Dublin, in one case reading \textit{SIHTRIC CVNVNG DYFL}, using the Old Norse \textit{cununc} for ‘king’, and in the other \textit{SITERIC REX IRVM}, ‘king among the Irish’.\footnote{Dolley 1966, 126 and no. 28; Blackburn 1996, 4–5.} In the 1020s the inscriptions become garbled through repeated copying and soon become just meaningless strokes. It is somewhat surprising that none of the rulers of Dublin attempted to restore the literacy of the coinage at any stage in the remaining century and a half, when the neighbouring English coinage was thoroughly literate.
Dolley's division of the coinage into seven Phases was inspired, for it not only groups the hundreds of different types and varieties according to their date of issue, but it also draws attention to significant changes in the monetary system. Illustrations of representative coins of the various phases are shown in Fig. 1, and Dolley's original chronology and his revised version of 1975 are set out in Table 1. Phase I was a period in which contemporary Anglo-Saxon issues were copied, but in an organised way, for the five types seem to have been used sequentially at Dublin and there is no muling of obverse and reverse types between them. By contrast, in Scandinavia there was considerable mixing of designs among the imitations. Phases II and III, however, are based on the by then old, anachronistic Long Cross design,

29 Dolley 1966, 119–45.
30 Malmer 1997.
but deliberately distinguished with additional marks, coins of Phase II having a small pellet added to each quarter of the reverse cross, and those of Phase III a stylised branch-like hand in two reverse quarters. Phase IV is the smallest and least satisfactory of the groups, for it comprises coins that appear to be transitional between Phases III and V, but their absence from certain Irish and Manx hoards spanning these Phases prompted Dolley to suggest that they come from another mint, possibly Waterford. Following recognition of a group of coins from a Northern Italian hoard, Dolley enlarged the scope of Phase IV to include several types originally designated Phase V.

Phase V is by far the most complex and enigmatic group, for although it also copies various contemporary English types, it does so in a much less organised way, mixing and muling designs to an extent that makes it hard to place any internal structure on the phase. It spans a long period, and if we had just one contemporary hoard from Dublin itself, we might be able to see if there was a system of renovatio monetae in operation. Phases VI and VII belong to the late eleventh and twelfth centuries. Phase VI marks a reversion to a single design, based on the traditional Long Cross type but with a crosier before the face. It is reasonably plentiful today, most specimens deriving from a single hoard found at Donough Henry, Co. Tyrone, 1823. Phase VII is another large group embracing a variety of types struck as bracteates or semi-bracteates on which very little has been published. Dolley has suggested that they may be the product of several mints.

Although the Dublin coinage was extensive and lasted for a century and a half, the monetary system has had the reputation for being unsophisticated and rather chaotic, at least compared with that in operation in Anglo-Saxon England. This impression comes in part from the language used by Dolley and Seaby to describe the coins: in Phase I ‘Imitations of Æthelred II’s Long Cross type’, in Phase II ‘Reduced-weight imitations of Æthelred’s Long Cross type’, and in Phase III ‘Further-reduced-weight imitations of Æthelred’s Long Cross type’ etc. Many of the hoards in which these coins occur, whether in Ireland or on the Isle of Man, are of mixed character, with coins from a range of different Hiberno-Scandinavian types often combined with Anglo-Saxon coins and even some Continental issues.

The implication that this was a light-weight, illiterate, derivative coinage within a bullion economy is not flattering. In this lecture I hope to demonstrate that such a charge is misplaced. In many aspects the coinage conformed to those of other contemporary states. It is wrong to call them imitations, for the designs were purposefully chosen and in many cases deliberately differentiated from the English prototype. The standards of production, including the fineness and weight, were well controlled. The weights compare favourably with contemporary English issues, although that may not have been intentional, for the Dublin coinage was not primarily produced for international trade, but for the local economy in and

### TABLE 1. Chronology for the Phases.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Dolley 1966</th>
<th>Galster, Dolley and Steen Jensen 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>c.995–c.1020</td>
<td>c.997–c.1020</td>
</tr>
<tr>
<td>Phase II</td>
<td>c.1015–c.1035</td>
<td>c.1020–c.1035</td>
</tr>
<tr>
<td>Phase III</td>
<td>c.1035–c.1055</td>
<td>c.1035–c.1055</td>
</tr>
<tr>
<td>Phase IV</td>
<td>c.1055–c.1065</td>
<td>c.1055–c.1065 or a little later?</td>
</tr>
<tr>
<td>Phase V</td>
<td>c.1065–c.1095</td>
<td>c.1065–c.1095</td>
</tr>
<tr>
<td>Phase VI</td>
<td>c.1095–c.1110</td>
<td>First half of 12th cent.?</td>
</tr>
<tr>
<td>Phase VII</td>
<td>c.1110–c.1150</td>
<td>Mid-12th cent.?</td>
</tr>
</tbody>
</table>

31 Dolley 1983; Dolley 1987, 826.
32 Dolley and Lane 1968 discusses the hoard, while the types are silently redesignated in Galster, Dolley and Jensen 1975, pls 10–11. The revised classification was followed in Seaby 1984, pl. 13.
33 Dolley 1983, 124, briefly suggesting that the true bracteates were struck at Dublin and Ferns, and the semi-bracteates at Clonmacnoise. I understand that there is a substantial discussion of the coinage of Phase VII and its mints in Dolley’s unpublished report on the Dublin excavation finds, which is still intended to form part of the final publication of the excavations.
34 Dolley 1987, 817–18, gives a brief survey of the Hiberno-Scandinavian coinage that is somewhat disparaging, laying emphasis on the light weight of many issues and the repeated recurrence of the Long Cross design of Æthelred II.
35 These are the terms used in cataloguing the coins in various volumes of the SCBI.
around Dublin. Hiberno-Scandinavian coins are rarely found in England, which is perhaps surprising given the ease with which one might think Phase I coins could be passed off as Anglo-Saxon. Of the seven Dublin coins now recorded as finds from England (below, Appendix), four of them are indeed Phase I types.

From the end of the tenth century the kings of Dublin appear to have imposed a regulated monetary system there based on the Hiberno-Scandinavian coinage and from which foreign coin was excluded. Such an arrangement was the paradigm of an effective monetary system operated by powerful states, such as Carolingian Francia and Anglo-Saxon England, though less familiar in kingdoms the size of Dublin. Yet there were good precedents, for in both York and Hedeby the Scandinavians established their own controlled monetary economies in the tenth century.36 The evidence for the Dublin economy comes partly from hoards: none of the four hoards found in or close to Dublin after the commencement of the Hiberno-Scandinavian coinage contained any Anglo-Saxon or other foreign coins.37 More telling, however, are the finds from the Dublin excavations. Rich though this material is, it has still to be adequately published, but a survey by Pat Wallace of the finds from the 1960s and 1970s excavations is sufficient to show how dominant the Dublin coinage was (Fig. 2).38 From the late ninth and tenth centuries the coins are all Anglo-Saxon or Anglo-Scandinavian, but after 1000 of the sixty-six coins found only four are Anglo-Saxon, and those are from the early eleventh century, as the system was becoming established. Thus from the first two decades of the century, during Phase I, half the finds are English, and although the sample is very small (just four coins) this suggests that contemporary Anglo-Saxon coins may have circulated alongside their Dublin counterparts. With the introduction of Phase II, in the period 1020–40, the proportions change radically, for the English element has fallen to less than 20%, and thereafter it is eliminated. On this evidence, the effective policy of exclusion of foreign coinage within Dublin seems to date from c.1020.

However, this is jumping ahead, for I would like to look in more detail at the introduction of the coinage and the individual phases, to see what light these shed on the monetary policy of the Dublin kings. In order to do this it is necessary to consider the currency into which the new coins were introduced.

![Graph](https://via.placeholder.com/150)

Fig. 2. Finds from Dublin Excavations 1962–81 (87 coins, of which 25 are Anglo-Saxon and 62 Hiberno-Scandinavian; source Wallace 1986).

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36 For York see Blackburn 2004, 344–6; for Hedeby see Wiechmann 1996, 190–3.
37 The hoards are Clondalkin (no. 2), Co. Dublin, c.1830 (dep. c.997); River Liffey, Co. Dublin, c.1940 (dep. c.1040); Clondalkin (no. 1), Co. Dublin, 1816 (dep. c.1065); Dublin (Christchurch Cathedral), c.1870 (dep. c.1100 or later).
Currency in Dublin in the later tenth century

The nature of the economy in tenth-century Ireland varied from region to region, and developed during the course of the century. There is a range of hoard compositions, from ones containing only whole silver ornaments, or whole ornaments, ingots and hack-silver, or a mixture of such silver and coins, to hoards containing only coins. The coin element may be whole or fragmented. Whole ornaments dominate in the far west of Ireland, while the coin hoards are concentrated in the Midlands with Dublin at the centre of the distribution, and the mixed hoards lie on the outer fringe of this group. In Dublin and its close hinterland the five recorded hoards from the second half of the tenth century contained just coins, and those all Anglo-Saxon. It seems as if a de facto coin economy developed there, albeit one based on imported coins which were probably valued according to their intrinsic silver content with perhaps some premium. Silver bullion may also have been used for certain transactions, as hacksilver and weights were plentiful in the Dublin excavations, if often difficult to date. Yet coins must have been prized more highly for they were hoarded separately and, we may suppose, preferred for some purposes or by certain groups in society. The evidence for a coin economy in Dublin in the early 990s is particularly persuasive, for we are enormously fortunate to have three substantial hoards recovered during archaeological excavations in 1993-4.

These hoards were found in the same general area in the southern part of the Anglo-Norman walled town, two in tenements at 26–29 Castle Street in 1993 and the third on nearby Werburgh Street in 1994. They each contained only Anglo-Saxon coins, and virtually all of these were whole pennies. A third hoard from Castle Street from the same late tenth-century contexts consisted of only hack-silver – fragments of two arm-rings – suggesting the coexistence of a bullion economy as well as a coin economy in the 990s. The two Castle Street coin hoards were distinctly different from one another (Table 2), for No. 1 terminates in Second Hand and Benediction Hand coins of Æthelred II and so has a tpq of c.990, while No. 2 contains a substantial number of coins of the succeeding Crux issue and its tpq is thus a few years later. If the two hoards were assembled on different occasions, it is nonetheless possible that their non-recovery by their owner or owners was prompted by the same event. The same applies to the Werburgh Street hoard, which like Castle Street (No. 2) ends with Crux coins of Æthelred. In the case of the Castle Street (No. 2) hoard one can narrow down the date the coins were assembled by looking at their weights and comparing these with the normal distribution of Crux coins generally. As part of the system of periodic recoinages after Edgar’s coinage reform the weight standard was reduced during the course of an issue and raised again at the beginning of the next issue, though not always to the original level set by Edgar. There were exceptions and local variations at some mints which complicate the pattern, but as a general principle this holds good and provides a means of establishing whether a sample of coins belongs to the beginning, middle or end of an issue. Comparing the weights of the Crux coins in the Castle Street (No. 2) hoard with the distribution of all Crux coins recorded by Peterson (Fig. 3), it is clear that the Castle Street coins belong to the heavier end of the distribution and this is confirmed by the average weights which for Castle Street coins is 1.60 g

39 See the discussion in my previous address; Blackburn 2007, 126–30.
40 Bullock (No. 2), Co. Dublin, 1840?, dep. c.970; Dalkey, Co. Dublin, c.1840, dep. c.970; Dublin (Castle St, No. 1), 1993, dep. c.990; Dublin (Castle St, No. 2), 1993, dep. c.995; Dublin (Werburgh St), 1994, dep. c.995.
41 These hoards were initially listed by Michael Kenny and Bill Lean and commented upon by Stewart Lyon, and they will be published by Kristin Bornholdt Collins in SCBI Dublin. I am grateful to them for providing information on the finds and for permission to draw upon it here. A preliminary report on the Benediction Hand coins of Æthelred II in the hoards has appeared in Bornholdt Collins and Screen 2007.
43 The literature on weight variation is extensive; see for example Petersson 1969; Lyon 1976, 195–205; Metcalf 1998, 56–69.
compared with 1.48 g for all Crux. It is evident, then, that the Castle Street (No. 2) hoard was assembled mid-way through the Crux issue. Unfortunately, the same analysis cannot be carried out on the Werburgh Street hoard since its coins are quite heavily corroded and damaged, as too are those in the Castle Street (No. 1) hoard. It is worth observing, however, that among the twelve Crux coins of York in the Werburgh Street hoard, there are none from the local-style dies that were prevalent during the latter part of the issue.

If only one of these hoards had been found, we would not know whether it was representative of the money circulating in Dublin in the early 990s or comprised, for example, money accumulated by a merchant with special contacts with England. However, the fact that we have three hoards of very similar structure shows that they were a reflection of the currency in Dublin. In Table 2, their compositions are compared with one another and with a smaller hoard of similar date from Kildare, some 30 miles south-west of Dublin.

**TABLE 2.** Compositions of the three Dublin hoards and the Kildare hoard.

<table>
<thead>
<tr>
<th></th>
<th>Kildare 1923</th>
<th>Dublin Castle St (No. 1)</th>
<th>Dublin Castle St (No. 2)</th>
<th>Dublin Werburgh St</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reform Small Cross (c.973–79)</td>
<td>3%</td>
<td>8%</td>
<td>5% (11%)</td>
<td>2% (3%)</td>
</tr>
<tr>
<td>First Hand (c.979–85)</td>
<td>74%</td>
<td>68%</td>
<td>31% (62%)</td>
<td>31% (60%)</td>
</tr>
<tr>
<td>Second Hand (c.985–91)</td>
<td>21%</td>
<td>20%</td>
<td>5% (11%)</td>
<td>13% (25%)</td>
</tr>
<tr>
<td>Benediction Hand (c.991)</td>
<td>3%</td>
<td>4%</td>
<td>8% (16%)</td>
<td>6% (12%)</td>
</tr>
<tr>
<td>Crux (c.991–97)</td>
<td>3%</td>
<td>4%</td>
<td>8% (16%)</td>
<td>6% (12%)</td>
</tr>
<tr>
<td>Number of coins</td>
<td>34</td>
<td>79</td>
<td>242</td>
<td>125</td>
</tr>
<tr>
<td>Deposit date</td>
<td>c.990</td>
<td>c.990</td>
<td>c.995</td>
<td>c.995</td>
</tr>
</tbody>
</table>

**Notes:**
1. Dates of issues are those conventionally given by Dolley, and should be regarded as only approximate.
2. Figures in brackets represent the proportions within the pre-Crux element of the hoard.

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45 Data based on 114 Crux coins from the Castle Street (No. 2) hoard and 3,209 Crux coins analysed by Petersson (1969, p. 197, table 2). Petersson (1969, 108–9) suggested that there were two principal weight standards used in the Crux issue, an earlier one with a mode of c.1.65 g and a later one with a mode of c.1.42 g, and this is supported by a stylistic analysis of coins of the York mint; Blackburn 1982, 337. It is possible that there were more stages in the weight reduction, as seen in other types, e.g. five in both Last Small Cross and Quatrefoil (Blackburn and Lyon 1986, 253–6; Blackburn 1990b, 65–70).

46 Blackburn 1982.
All four hoards start with the Reform Small Cross issue of Edgar, Edward the Martyr and Æthelred II, contain a larger element of First Hand than Second Hand coins, and most remarkably include some of the exceptionally rare Benediction Hand type. In the two latest hoards half the coins are of the Crux type. However, if one only considers the pre-Crux element of these two hoards, they are very similar to one another and to the proportions in the earlier two hoards. The slightly smaller element of Benediction Hand coins in the Kildare and Castle Street (No. 1) hoards, if it is statistically significant, may indicate that those hoards were closed while Benediction coins were still arriving in Dublin – indeed one would expect some to have come over with early Crux coins.

Looking at the regional breakdown of each type across the three Dublin hoards, the consistency is not as great as the foregoing analysis would imply. Table 3 shows for each hoard and type the percentage of the coins from each of seven regions. Many of the figures are based on such small numbers of coins that variations between the hoards may not be statistically meaningful, although there are some interesting trends. In order to judge the significance of a higher or lower proportion of coins from one region or another, one should take account of the proportion they typically represent among other finds. Metcalf, when seeking to estimate the relative output of late Anglo-Saxon mints, chose as a large and well-documented sample the coins in the Stockholm systematic and Copenhagen collections, and figures based on these have been included for comparison in Table 3. This sample is not a true reflection of mint output, as it will have been influenced by the composition of the coinage that was exported to Scandinavia, and so might, for example, favour mints from eastern England. Nonetheless, it provides a useful comparison for the coins exported to Ireland.

It is not surprising that the representation of the North-Western mints is consistently higher in the Dublin hoards than in the Scandinavian sample, where they form a very small element. Without a die-study, it is difficult to judge whether this is because they were under-represented in the Scandinavian finds or over-represented in the Dublin hoards, but both factors are probably at play. However, North-Western coins are still not particularly prominent in the Dublin hoards, normally accounting for less than 10 per cent of the coins except in the Benediction Hand type. Mints in the adjoining West Midlands are rather poorly represented. For all the other English regions the proportions found in the Dublin hoards are broadly similar to those in the Scandinavian sample. It is particularly of note that the prolific mints in the South East and South West are as well represented in Dublin as in Scandinavia. The balance of northern to southern mints seen here contrasts with that observed by Bornholdt Collins in the Irish and Manx hoards from the third quarter of the tenth century.

A typical pre-reform hoard from Ireland might contain c. 14% coins from the South and the Midlands, c. 42% from North-West Mercia and the North Midlands, and c. 37% from the North East. The southern element in the three Dublin hoards represents c. 60% of the coins. Dolley had observed that the output of the Chester mint had fallen dramatically in the 980s and earlier 990s, a result, he suggested, of the Viking raid on Cheshire in 980. He also argued that this was accompanied by a marked shift in Dublin’s trade away from Chester in favour of ports in the South West. Yet the trade routes to Dublin may have been still wider, embracing the Channel ports, to achieve the balanced currency reflected in the Dublin hoards.

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47 As Bornholdt Collins and Screen (2007) have shown, these four hoards together provide no less that 30 of the 176 Benediction Hand coins known from all sources (i.e. 17%).
48 The proportions in the pre-Crux elements for the two later hoards are shown in brackets in Table 2.
49 As suggested by the Isleworth hoard of 1886, the only English hoard to contain Benediction Hand coins, which had two Second Hand, three Benediction Hand and twenty-three Crux coins (plus some more allegedly in the possession of workmen); Grueber 1886, 161–3; Blackburn and Pagan 1989, no. 184. The Reslöv hoard from Skåne, Sweden, points in the same direction, with three First Hand, twenty-seven Second Hand, twenty-two Benediction Hand and eighty-eight Crux coins; CNS 3.4.22, discussed in Blackburn 1988, 167–8.
50 The mints included in each region should be obvious, though some divisions are arbitrary, thus the North West comprises Chester, Shrewsbury, Stafford and Tamworth, and the North East just York and Lincoln, while the East Midlands includes Colchester and Maldon.
52 Bornholdt Collins 2003, 265–74, app. IV.
53 Bornholdt Collins 2003, 272, table 5.10.
### TABLE 3. Regional analysis of the three Dublin Hoards (per cent.).

<table>
<thead>
<tr>
<th>Region</th>
<th>Reform Small Cross</th>
<th>First Hand</th>
<th>Second Hand</th>
<th>Benediction Hand</th>
<th>Crux</th>
<th>Total</th>
<th>Total Pre-Crux</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Castle St (No. 1)</td>
<td>Castle St (No. 2)</td>
<td>Castle St (No. 1)</td>
<td>Castle St (No. 2)</td>
<td>Castle St (No. 1)</td>
<td>Castle St (No. 2)</td>
<td>Castle St (No. 1)</td>
</tr>
<tr>
<td>North West</td>
<td>8 17 – –</td>
<td>3 7 8 8</td>
<td>2 6 8 –</td>
<td>5 33 63 38</td>
<td>2 – 11 2</td>
<td>3 9 14 6</td>
<td>4 9 16 9</td>
</tr>
<tr>
<td>North East</td>
<td>14 33 – –</td>
<td>12 13 8 15</td>
<td>– – – –</td>
<td>– – – –</td>
<td>14 – 7 38</td>
<td>11 11 6 23</td>
<td>6 11 5 9</td>
</tr>
<tr>
<td>W Midlands</td>
<td>7 33 31 –</td>
<td>3 11 – –</td>
<td>2 – – 6</td>
<td>2 – 5 –</td>
<td>7 – – 2</td>
<td>5 10 2 2</td>
<td>3 10 4 2</td>
</tr>
<tr>
<td>E Midlands</td>
<td>18 17 23 50</td>
<td>11 4 14 3</td>
<td>5 – 8 19</td>
<td>2 – 5 –</td>
<td>13 – 6 3</td>
<td>11 4 9 6</td>
<td>8 4 13 8</td>
</tr>
<tr>
<td>E Anglia</td>
<td>7 – – – –</td>
<td>8 7 4 8</td>
<td>6 – 8 –</td>
<td>11 33 11 13</td>
<td>7 – 7 7</td>
<td>7 6 6 6 6</td>
<td>8 6 5 6</td>
</tr>
<tr>
<td>Uncertain</td>
<td>– – 8 – –</td>
<td>– – – –</td>
<td>– – 8 –</td>
<td>– – 1 2</td>
<td>– – 1 1</td>
<td>– – 2 –</td>
<td>– – 2 –</td>
</tr>
<tr>
<td>No. of coins</td>
<td>115 6 13 2</td>
<td>371 54 76 39</td>
<td>300 16 13 16</td>
<td>149 3 19 8</td>
<td>1295 – 121 60</td>
<td>2230 79 242 125</td>
<td>935 79 121 65</td>
</tr>
</tbody>
</table>

**Note:** Scand sample = A control sample representing coins in Stockholm systematic collection (Hildebrand 1881) and SCBI Copenhagen as used by Metcalf (1981, app. V; 1998, 293–301) to estimate relative mint output and the ranking of the mints; for Benediction Hand type based on Bornholdt Collins and Screen 2007, less the coins from the three Dublin hoards.
Broadly, then, the three Dublin hoards are made up of a balanced mixture of coins from all regions of England, spread over the five successive issues. There are, however, as one might expect, small groups of associated coins that had probably arrived and remained together. One within the Castle Street (No. 2) hoard is a group of twelve Benediction Hand coins of Chester, by four moneyers, all heavily die-linked. They probably came with some of the early Crux coins of Chester in the hoard that are also die-linked. A second distinctive group, evident from Table 3, can be detected through an unusually high proportion of North-Eastern coins of the Crux issue in the Werburgh Street hoard. These comprise seven coins of Lincoln and fourteen of York (including two Benediction Hand/Crux mules), and the associated group that has bolstered the North East percentage probably comprised several of the York coins including the rare mules. That such small groups should be present among the more recent elements of the hoards does not detract from the general impression that these hoards have been drawn from a reasonably homogeneous currency.

The consistency among the hoards, in terms of both types and regional distributions, is powerful evidence for these being representative of the currency in circulation in c.990/c.995. It is instructive to consider how a currency of this composition would have been achieved, for it is quite different from that found in England, where with regular recoinages coins of earlier types were quite soon removed from general circulation. Thus of the thirty-five English hoards deposited between c.973 and c.1042, thirty are single-type hoards, three have two sequential types, and only two have more than two types. One of these multi-type hoards is the so-called ‘Cnut hoard’ from the East Midlands containing 8,000 or more coins and clearly a large accumulated store of wealth, while the other is the anomalous Welbourn, Lincs., hoard with eight recorded coins. The composition of the currency in Dublin c.995, as indicated by the Castle Street (No. 2) and Werburgh Street hoards, can best be explained as the product of fifteen to twenty years of regular coin importation from England, probably through trade. The presence of Benediction Hand coins, which were in circulation in England for only a short time, suggests a regular export.

It is interesting that in all four hoards the earliest coins are of the Reform Small Cross type, but there is not one coin pre-dating Edgar’s monetary reform of c.973. Yet the many hoards from Ireland and the Irish Sea littoral deposited c.970 show that pre-Reform coins had been plentiful. Why did none of these survive in Dublin in the 990s? They could not have been reminted in Ireland, for there was no mint at this period, so they must have been exported or melted down as bullion. These were normal processes that one could expect to have resulted in a degree of ‘wastage’ from the currency reducing the proportion of older coins, but the fact that no pre-Reform coins occurred in the hoards suggests that they were preferentially targeted. Their demonetisation in England after c.973 should not have affected their utility in Dublin, except perhaps to those merchants who were trading directly with the English. But more telling may have been their reputation for being debased, for one of the aims of Edgar’s reform was to restore the weight and fineness to the standards of Alfred’s reign. Such a reputation could well have resulted in their being rejected when the four hoards were being assembled – just as cut halfpennies seem largely to have been – and indeed rejected from the type of de facto coin economy that the hoards appear to represent.

This evidence suggests that on the eve of the introduction of a locally-produced coinage, Dublin enjoyed a vibrant coin economy based on good quality Anglo-Saxon silver pennies. Unlike in England, they comprised a variety of types and their weight range overall would have been considerable. In England coins passed by tale at a value higher than their intrinsic worth, set by government via the mints. In Dublin their natural value would have been closer to their intrinsic worth, though some premium would have been accorded to them for the convenience of having silver in the form of coins. Yet this natural overvalue is unlikely to have been sufficient to enable coins with such a weight range to pass at an equal value, except

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55 The twelve coins are struck from two obverse and four reverse dies.
56 Allen 2006, 494–5, and app. 3A.
58 Within the Castle Street (No. 1) hoard sound coins vary in weight from 1.85 g to 1.14 g.
perhaps in smaller transactions. For any substantial payment in Dublin, it is likely that Anglo-Saxon coins were used by weight, rather than counted out by tale.

The contrast between the three recent Dublin hoards and the next hoard from the Dublin area is dramatic. The c.1830 hoard from Clondalkin, a defended monastic site now in a suburb of Dublin and in the late tenth century within the jurisdiction of the kingdom of Dublin, can only have been deposited two or three years later than the Castle Street (No. 2) and Werburgh Street hoards. It contained upwards of seventy-five pennies of the Crux type, but all of them apparently belonged to Sihtric’s new Hiberno-Scandinavian coinage. If this hoard is as representative of the Dublin currency as those three we have just discussed, a remarkable change had occurred in just a few years, with the previous stock of Anglo-Saxon coins being swept away and replaced with locally-produced Dublin coins. Radical as this may seem, it is a plausible explanation of the evidence. The Clondalkin hoard does not look like a group of coins taken directly from the mint, as they are struck from many different dies and name several moneyers. This coinage was produced on a large scale, and it is feasible that it could have reminted all the cash held in Dublin. Even if the Clondalkin hoard contained some Anglo-Saxon Crux coins that were not recorded, it is clear that the new coinage made a dramatic impact on the money in circulation.

**Phase I – The first Hiberno-Scandinavian coinage**

If the currency of Dublin in the late tenth century was so heavily dependent on the contemporary Anglo-Saxon coinage, as the three Dublin hoards imply, it is not surprising that when the Dubliners started producing a coinage of their own it should have been so strongly influenced by that of the Anglo-Saxons. Indeed for the first twenty-five years, during what Michael Dolley termed Phase I, the designs were copied directly from five successive English issues – *Crux*, *Long Cross*, *Helmet* and *Last Small Cross* of Æthelred and *Quatrefoil* of Cnut – and it is reasonably clear from the Scandinavian hoard evidence that each of the Dublin issues was broadly contemporaneous with its English prototype. In particular, the hoards from List (Schleswig-Holstein) and Igelösa (Skåne) suggest that the large Long Cross issue was pretty well entirely struck during the currency of the type in England.

Many of the coins carry the name of Sihtric and a Dublin mint signature (Fig. 4), but particularly after the Crux issue a significant proportion have either the name of the English king or an English mint or moneyer. (Dolley took immense pleasure in unravelling this net of misleading ‘imitations’ and ‘imitations of imitations’. The reason for their existence was not that they were intended to be smuggled into England and passed off as official – although a few do seem to have been – but, being primarily an economic rather than political coinage, those in charge of the mint were content to emulate English coins still more closely if it helped to secure acceptance for them in Ireland and the rest of the Viking world. The level of literacy among the Scandinavian communities in Britain, even within the ruling elite, was evidently low – this is strongly indicated by the ninth- and tenth-century coins from the Danelaw, as well as those from Dublin. Thus when the die-cutters were selecting coins to use as their models they could not easily distinguish between ones reading Sihtric and ones reading Æthelred, and perhaps more importantly people within the ruling administration did not monitor and pull up the die-cutters when they got it wrong.

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59 Dolley 1966, 55–6; Dolley 1973b; Seaby 1984, 1–3. Out of a corpus of 88 Hiberno-Scandinavian Crux coins published by Dolley (1973b), thirty-seven are documented as coming from the Clondalkin hoard, and a further thirty-seven are attributed to it; no English Crux coins can be attributed to the find.
60 A sample of 86 coins in Dolley’s corpus was struck from 50 obverse and 51 reverse dies; 32 coins were obverse singletons and 33 were reverse singletons. Projecting from this one can estimate that the whole issue was struck from 80 obverse and 83 reverse dies (mid-points, subject to a degree of uncertainty). It is dangerous to extrapolate from these figures to estimate the total number of coins that were struck, but one can say that they would have numbered in the hundreds of thousands and perhaps over a million.
61 Blackburn 2004, 338.
A number of the dies used in Dublin were actually English in origin, some obtained from mints in Western England; Seaby and Dolley identified Crux, Long Cross, and Last Small Cross dies previously used at Watchet, Worcester and Chester. However, others had been used at mints elsewhere; Bill Lean and I have identified two in the Helmet type taken from London and York. In some cases Dublin moneyers actually commissioned English die-cutters at London and Chester to make them Long Cross and Quatrefoil dies in the name of Sihtric. And we even find three obverse dies of Long Cross and Helmet types of clear Hiberno-Scandinavian style being used in the regular coinage at York. This all goes to reinforce the close nexus between the English and Hiberno-Scandinavian coinage throughout Phase I, not only in terms of chronology, but also ideas and technology. This is also reflected to some extent in the weight standards adopted in Dublin.

Weights and fineness

The system of weights for the Hiberno-Scandinavian coins of Phase I is less well-ordered and sophisticated than that followed by the English issues. There are not such well-defined standards, but there is some correlation with weights of the English coins (Table 4). The weights of Sihtric’s Crux type follow those of the English Crux coins already circulating in Dublin when the coinage was first instituted, but Sihtric did not reduce the standard as the English mints did later in the issue. This can be seen from Fig. 5, which compares the weights of Hiberno-Scandinavian Crux coins with those of English Crux coins generally and with those in the Castle Street (No. 2) hoard. As a result the average weight of the Hiberno-Scandinavian coins is marginally heavier than the English (1.54 g, compared with 1.48 g) and it is considerably heavier than the late Small Crux coins (1.32 g) which were probably their contemporaries.

With the Long Cross type the pattern changes. Whereas the English coins reverted to a heavier weight standard, Dublin continued striking to the same weight standard as the previous issue, c.1.5 g. Before long, however, the Dublin moneyers allowed the standard to fall to c.1.25 g, perhaps on news from merchants trading with England that the weight of the penny had been reduced there. Thus the Long Cross coins with the obverse legend 5YMN fall into the lower part of the distribution, and the same is true of the coins from the hoard from List gathered towards the end of the Long Cross issue. The weight reduction may also have had the effect of driving heavier coins out of circulation, for they were not present in the List gathered towards the end of the Long Cross issue.
In the Helmet, Last Small Cross and Quatrefoil types there was a slow but progressive reduction in the weight of the Hiberno-Norse penny, but although the average weights were lower for the Dublin issues, the individual weights normally fell within the overall range of weights for the Anglo-Saxon coins.

How carefully were the Dublin moneyers trying to conform to a weight standard? Bertil Petersson studied the weight variation between die-duplicates, on the assumption that they were mostly struck close in time and probably to the same weight standard. He found that 42% of his sample lay within 0.3 g of each other, and 72% lay within 0.6 g. The comparable figures for the five Dublin issues of Phase I are presented in Table 5. These show that the Dublin moneyers were not as accurate in the adjustment of the flans for their coins, for only 25% or so of the coins fell within the 0.3 g range, and about 40% were within 0.6 g. However, even if the tolerance was wider, it is clear that they were still striving to strike their coins to a

![Fig. 5. Comparison of weights of Hiberno-Scandinavian Crux coins, English Crux coins in the Castle Street (No. 2) hoard and all Crux coins (data for all Crux from Petersson 1969).](chart)

**TABLE 4. Average weights of Hiberno-Scandinavian and Anglo-Saxon coins c.995–1035.**

<table>
<thead>
<tr>
<th></th>
<th>Hiberno-Scandinavian</th>
<th>Anglo-Saxon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crux</td>
<td>1.54 g</td>
<td>1.48 g</td>
</tr>
<tr>
<td>Long Cross</td>
<td>1.35 g</td>
<td>1.57 g</td>
</tr>
<tr>
<td>Helmet</td>
<td>1.18 g</td>
<td>1.36 g</td>
</tr>
<tr>
<td>Last Small Cross</td>
<td>1.14 g</td>
<td>1.32 g</td>
</tr>
<tr>
<td>Quatrefoil</td>
<td>1.03 g</td>
<td>1.06 g</td>
</tr>
<tr>
<td><strong>Phase II:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>1.29 g</td>
<td>1.06 g</td>
</tr>
<tr>
<td>Middle</td>
<td>1.19 g</td>
<td>1.02 g</td>
</tr>
<tr>
<td>Late</td>
<td>1.05 g</td>
<td>1.07 g</td>
</tr>
<tr>
<td>Very Late</td>
<td>0.7 g</td>
<td>1.07 g</td>
</tr>
</tbody>
</table>

*Note: Weights of Anglo-Saxon coins based on Petersson 1969. These are a composite, based on coins struck to various different standards within one type.*

How carefully were the Dublin moneyers trying to conform to a weight standard? Bertil Petersson studied the weight variation between die-duplicates, on the assumption that they were mostly struck close in time and probably to the same weight standard. He found that 42% of his sample lay within 0.3 g of each other, and 72% lay within 0.6 g. The comparable figures for the five Dublin issues of Phase I are presented in Table 5. These show that the Dublin moneyers were not as accurate in the adjustment of the flans for their coins, for only 25% or so of the coins fell within the 0.3 g range, and about 40% were within 0.6 g. However, even if the tolerance was wider, it is clear that they were still striving to strike their coins to a

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70 Petersson 1969, 142–4 and table 49a.
71 The figures are quite consistent between issues, apart from the Helmet type which is based on a small sample.
standard. By contrast, another group of Quatrefoil imitations attributed to an unlocated mint in the Irish Sea area, perhaps Meols, were rather less well adjusted, while the contemporary Scandinavian imitations of Anglo-Saxon types were not regulated at all.\footnote{For the ‘Irish Sea’ imitations see Blackburn 1996, 12; for examples of Scandinavian imitations see Blackburn 1985, 106–7; Malmer 2007, 42–3.}

The counterpart to the regulation of coin weights is management of the fineness of their silver. Heslip and Northover have shown that the metal used for coins of Phase I is indistinguishable from that of contemporary Anglo-Saxon coins, with finenesses in the range of 93–97\%.\footnote{Heslip and Northover 1990, 104.} Much of the silver may have come from reminting English coins, but in so far as other sources of mixed bullion and older pre-reform coins were used these must have been refined to the contemporary standard of fineness. This supports the suggestion above that the pre-reform coins were rejected from circulation because of their reputation for being of inferior fineness. In later phases of the Hiberno-Scandinavian coinage the proportion of zinc is higher, showing that there was a change in refining technique, with brass rather than a copper/brass alloy being added to adjust the fineness.

The rationale for the Phase I coinage

The evidence of the Clondalkin hoard suggests that, in establishing a mint in Dublin and introducing his own version of the Crux type, Sihtric was embarking on an ambitious monetary reform, intending to replace the existing stock of Anglo-Saxon coins in Dublin with his own local coinage.\footnote{See above, p. 123.} The attractions for any ruler of minting their own coins were the profits to be gained from the mint, as well as the convenience of having a sound currency in which to collect revenues and taxes, and distribute them. Those profits could be enhanced if the circulation of foreign coins were banned, obliging people to take them to the mint for restriking into the local type and pay an appropriate fee. Such a measure requires both political and economic muscle, if it is to be effective and not drive away trade. Sihtric’s compromise was to introduce his own version of the familiar Crux type, in which people had confidence, and to adopt its standards of weight and fineness.

Less than a hundred specimens of Sihtric’s Crux type are known today, and the great majority of these derive from the Clondalkin hoard.\footnote{See above, n.59.} Despite the substantial scale of the issue,\footnote{See above, n.60.} only a handful of specimens have been found in Scandinavia, which contrasts with the

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### TABLE 5. Weight differences among Hiberno-Scandinavian die-duplicates.

<table>
<thead>
<tr>
<th></th>
<th>No. of comparisons</th>
<th>Within 0.03 g</th>
<th>Within 0.06 g</th>
<th>Within 0.09 g</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anglo-Saxon</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edgar-Harthaegnut</td>
<td>389</td>
<td>42%</td>
<td>72%</td>
<td>83%</td>
</tr>
<tr>
<td><strong>Hiberno-Scandinavian</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crux</td>
<td>58</td>
<td>26%</td>
<td>41%</td>
<td>50%</td>
</tr>
<tr>
<td>Long Cross</td>
<td>139</td>
<td>26%</td>
<td>41%</td>
<td>63%</td>
</tr>
<tr>
<td>Helmet</td>
<td>18</td>
<td>17%</td>
<td>28%</td>
<td>39%</td>
</tr>
<tr>
<td>Last Small Cross</td>
<td>101</td>
<td>25%</td>
<td>37%</td>
<td>51%</td>
</tr>
<tr>
<td>Quatrefoil</td>
<td>8</td>
<td>25%</td>
<td>38%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Other insular coinages</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Irish-Sea’ Quatrefoil</td>
<td>22</td>
<td>9%</td>
<td>36%</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Notes:**
1. Data for Anglo-Saxon coins from Petersson 1969, Table 491.
2. The ‘No. of comparisons’ indicates the number of times weights can be compared within a group of die-duplicates. Thus one pair of die-duplicates allows one comparison, but a group of three die-duplicates allows four comparisons, and four die-duplicates allows eight comparisons.
later issues of Phase I. This suggests that the coinage was very short-lived, both in production and circulation. We have seen from the absence of the new Dublin coins from the Castle Street (No. 2) and Werburgh Street hoards that it was introduced during the latter stages of the issue in England, and some of the Dublin coins copy the style of bust from the late English variety known as Small Crux. This prompted Dolley to date the introduction of the Dublin Crux coinage to c.997, relying on his own chronology of the English issue to 991–997.77 Today there is scepticism about the assumption underlying Dolley’s late Anglo-Saxon chronology, namely that a regular sexennial cycle of recoinages was both intended and largely adhered to between 973 and 1036.78 I prefer, then, to use the less precise c.995 for the introduction of the coinage, recognising that it could fall within a range of several years between then and the end of the millennium.

Phase I Long Cross coins reached Scandinavia and the southern and eastern Baltic in considerable numbers. The Stockholm systematic collection drawn from Swedish hoards contains at least seventy-eight specimens compared with only two of the Crux type. This is largely a reflection of their very different survival rates, rather than the size of the issues, although we have no estimate of the number of dies originally used in the Long Cross issue as a die-study has yet to be carried out. In Insular hoards, too, Crux coins are rarely found in conjunction with Phase I Long Cross. This is strong evidence that on the introduction of Long Cross there was a recoinage in Dublin which was reasonably effective in removing the Crux coins before they had time to penetrate other regions. With two recoinages in quick succession, it is probable that Sihtric intended from the outset to establish a system of *renovatio monetae*. However, in terms of manipulation of the weight standard, as we have seen, the Dublin coinage was not as sophisticated as the Anglo-Saxon system on which it was modelled.

The Helmet, Last Small Cross and Quatrefoil issues of Dublin are scarcer than the Long Cross type, and it is not clear whether they succeeded in recoining the previous issues, if that was the intention. Based on die studies, the Helmet type is estimated to have been struck from around 40 pairs of dies,79 and Quatrefoil around 25 pairs.80 Unlike the Crux issue, the Helmet and Quatrefoil coins got to the Northern Lands in reasonable numbers, while none has been found in Ireland, but that merely reflects the general scarcity of finds of this period from Ireland. There have been three additions to the 1990 corpus of thirty-one Helmet coins,81 including one which confirms that the Hiberno-Scandinavian-looking obverse die used to strike some nineteen York coins of the moneyer Colgrim, had previously been used in Dublin.82 There are also three additions to the thirty Quatrefoil coins attributed to Dublin in 1996.83

Phase II – A coinage of national identity

For twenty-five years the Hiberno-Scandinavian coinage had shadowed its Anglo-Saxon counterpart, drawing upon the reputation of the latter to give it economic respectability, but also perhaps reflecting Dublin’s dependence on English coinage as a medium of trade. The

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77 Dolley 1973a.
78 There is a considerable literature discussing the chronology, including Brand 1984; Stewart 1992, 49–56; Jonsson 1987, 191–2; Blackburn 1991, 161–2.
79 The point estimates are 38 obverse and 40 reverse dies, but the 95% confidence ranges are 24–66 obverse dies and 24–69 reverse dies; Blackburn 1996, 3 n.6, based on the corpus in Blackburn 1990a.
80 The point estimates are 27 obverse and 25 reverse dies, but the 95% confidence ranges are 17–44 obverse dies and 16–40 reverse dies; Blackburn 1996, 2 n.5.
81 Blackburn 1990a: the three additions are: a. Fitzwilliam Museum, fd Torksey, Lincs. 1992/3 (see below, Appendix, no. 2), from the same dies as no. 19; b. one from new dies in a private Swedish collection from a German sale in 1990 (reading *HÆ BÆRLÆFÆD RÆ+ ANGIL* and *HÆ NEM NM O BHI*; wt. 1.02 g; pers. comm. K. Jonsson); and c. one in the Stockholm cabinet, ex Kannungs hoard (Hellvi par., Gotland, SHM 20879; wt. 1.04 g) from the same obverse die as C1–6 and the same reverse as 17.
82 The last coin cited in the previous note provides a die-link with the York coins; Blackburn 1990a, 13–15, 21.
83 Blackburn 1996; the three additions are: a. Baldwin sale 31 (14 Oct. 2002), lot 152 (wt 0.81 g, pierced) and b. Manx Museum; ex Glenfaba hoard 2003 (wt 0.99 g), both coins struck from the same obverse as IS21 and the same reverse as HN3 and HN9, showing that IS21 belongs to the Dublin series and not the ‘Irish Sea imitations’ as I proposed. IS21 is thus the third addition.
abandonment of this system in c.1020 and the reversion to copying the Long Cross type, though at a lower weight standard, may be interpreted as a sign of weakness and insularity, an impression reinforced by Dolley’s description of these coins as ‘Reduced-weight imitations of Æthelred II’s Long Cross pence’.84 However, I would argue that their introduction should be seen as a major coinage reform, and one requiring considerable political and economic strength to effect. The Long Cross type in England is notable for having been struck to the heaviest standard and having the highest average weight of all late Anglo-Saxon issues.85 In Dublin’s Phase I Long Cross was the largest issue, and apart from the short-lived Crux type it was also the heaviest. Looking back in 1020, a Dubliner would surely have regarded Long Cross as their most successful coinage, and may well not have thought of it as an English type – Long Cross had ceased to circulate in England some fifteen years earlier.

The new design was deliberately differentiated from the earlier type in two subtle but fundamental ways (Fig. 6). On the obverse the large pellet behind the king’s head was replaced by a cross, and on the reverse a tiny pellet was placed in the centre of each quarter of the reverse. By abandoning the use of contemporary Anglo-Saxon coin designs and adopting a deliberately distinct version of their former Long Cross issue, they were creating for the first time a distinctive ‘national’ coinage for the kingdom. Indeed the Long Cross type, adapted in various ways, would become an iconic design for the Dublin coinage recurring again and again over the following hundred and fifty years.

As with the earlier Phase I issues, the change of design was probably part of a wider coinage reform, involving the complete recoinage of the remaining Phase I currency, a more concerted attempt to exclude foreign coins, and an increase in the weight of the penny. To demonstrate that there was an effective recoinage, one would like to have a hoard from Dublin itself from early in Phase II, but the few hoards from elsewhere in Ireland or the Isle of Man, most notably the Glenfaba and Fourknocks hoards, suggest that few Phase I coins remained in circulation by the later 1020s. Moreover, the finds from the Dublin excavations imply that contemporary Anglo-Saxon coins were more effectively excluded from circulation in Phase II.86 Towards the end of Phase I the average weight of the penny had fallen to 1.03 g, while the earlier coins of Phase II average 1.29 g (Table 4), which seems to represent a restoration of the standard to that of the Phase I Long Cross issue.

**Dating the earliest Phase II coins**

During the course of Phase II there are changes in style, literacy and weight of the coins, and additional ornaments are added usually behind the bust or on the neck on some coins. In the Copenhagen Sylloge, the Phase II coins were divided into an earlier and a later grouping,87 and this has been followed in subsequent volumes. Even within the earlier grouping there is considerable variation, with some coins that are particularly close in style to coins of Phase I Long Cross, heavy in weight and of good literacy. Since the early 1970s, Stewart Lyon had privately expressed the opinion that certain of these coins were struck during Phase I, close in time to the Long Cross and Helmet issues. The case for this was strengthened in 1987 with the publication of the ‘Everlöv’ hoard from Skåne in the Swedish *Corpus Nummorum Saeculorum* series.88 This large hoard has a *tpq* of 1014 and an insular element with 335 Anglo-Saxon coins, ending in Last Small Cross, and thirteen Hiberno-Scandinavian coins ending with the Helmet type, plus one penny of early Phase II.89
The arguments for dating some early Phase II coins to immediately after Phase I Long Cross and/or Helmet type may be summarised as follows:

1. There is a close stylistic similarity between Phase I Long Cross/Helmet and some early Phase II coins. This similarity in style goes down to such minute details that it is clear that certain Phase II dies were carefully copied coins of Phase I. For example, two small marks, probably die flaws, in the field behind the head on Fig. 6, 3, are copied as small pellets on Fig. 6, 4, and on the reverses of the same coins the die-cutter has copied the pellets in the cusps of the upper three terminals of the long cross, and the thick die flaw above the O and the thin one below it in the field. The bust of Fig. 6, 4, on the other
hand, is closer to that on Fig. 6, 2, and the pellet after the F of FÆREMIN, comes from a coin such as this.

2. There is no stylistic similarity with Phase I Last Small Cross and Quatrefoil. Was this because there was continuity between Phase I Long Cross/Helmet and early Phase II, or were the Phase II coins carefully copying Phase I Long Cross?

3. The moneyers Car, Godric and Siulf, who are named on early Phase II coins, are not known from Phase I Last Small Cross or Quatrefoil coins, but they are named on Helmet coins. Stegen, on the other hand, is only known in Phase I Quatrefoil and Phase II. Were the moneyers named on Phase II coins actually active at the time, or were the names copied from earlier coins?

4. The weights of early Phase II coins are similar to those of late Phase I Long Cross and Helmet, but higher than Last Small Cross and Quatrefoil coins. Was this because there was continuity in standard, or did Phase II mark a restoration to an earlier standard?

5. The ‘Everlöv’ hoard, discussed above, provides perhaps the strongest evidence that some Phase II coins pre-date the Quatrefoil issue in England. It does require some special pleading to argue that the one Phase II coin present in the hoard could be several years later than any of the other coins from the British Isles, albeit that the German and Danish element may run on slightly later.

Based on these arguments, the case for placing some Phase II coins at an early date, say c.1005, had looked persuasive, raising the further question whether this was an early isolated group that was later used as the prototype for the substantive issue of Phase II in the 1020s, or whether the Phase II issue ran continuously from c.1005 with the Hiberno-Scandinavian Last Small Cross and Quatrefoil types being struck in parallel with it? Before considering these questions we should see what light the new Glenfaba hoard sheds on the dating of Phase II.

The Glenfaba hoard and Phase II

This hoard, named after the sheading or administrative district in which it was found in order to protect its find location, was discovered in March 2003 and has been acquired intact by the Manx Museum. Its contents are summarised in Table 6. In interpreting the hoard one should bear in mind that it was assembled and deposited in the Isle of Man, and is not directly representative of the currency of Dublin, although three-quarters of the coins were produced in Dublin. The Anglo-Saxon element may have come direct to Man from England, accumulated over a long period, or via Ireland or both. The ‘Irish Sea’ imitations present in the hoard may likewise have come direct from their minting place (Meols?). The latest coins in the hoard are the Hiberno-Manx coins (struck from the so-called ‘transfer die’) and the Hiberno-Scandinavian Phase II, of which most varieties are represented except for the very late ones, such as those with ‘E’ on the neck (below p.133, Fig. 7, 2). The English element in the hoard is therefore distinctly older than most of the Hiberno-Scandinavian and Hiberno-Manx coins.


464 coins, with a plaited silver arm-ring and 25 silver ingots:

Anglo-Saxon: 79 (Crux (1), Long Cross (34), Helmet (10), Last Small Cross (25), Quatrefoil (9))

Hiberno-Scandinavian: 343: Phase I (20: Long Cross (14), Helmet (0), Last Small Cross (5), Quatrefoil (1)); Phase II (323, including several related to early Hiberno-Manx coins and that may transpire to belong to that series)

Hiberno-Scandinavian/Hiberno-Manx: 30 (from the ‘transfer’ obverse die)

‘Irish Sea’ imitations: 11 (Quatrefoil)

Scandinavian: 1 (Long Cross)

Date of deposit: c.1030
Only twenty coins of Phase I were present in the hoard, compared with some 323 coins of Phase II. The proportions in which the four Phase I types Long Cross to Quatrefoil occur broadly reflects the scarcity of the issues generally, Helmet and Quatrefoil being the rarest. There are no die-links among the Phase I coins. By contrast many of the coins of Phase II are heavily die-linked and in some most illuminating combinations. The degree of die-linking among particular groups of coins within Phase II may provide evidence for their dating. In principle, if any of the early Phase II coins in the hoard are contemporary with Phase I, then their survival rates ought to be similar, and die-links among them should be rare.

In order to shed some light on the character of the earlier grouping within Phase II, elements of several of die-linked and other associated groups in the hoard are illustrated on Plate 3:

I. Sihtric – Styrbern, with A behind bust: the Everlöv dies (Pl. 3, 1–3). Three die-duplicates struck from the same dies as the Phase II coin in the ‘Everlöv’ hoard (CNS 4.3.59:805) and SCBI 8 (BM), 68.

II. Sihtric – Færemin, Siult and Godric (Pl. 3, 4–6). Three coins sharing one obverse die but naming three different moneyers. Note that on the reverse of Pl. 3, 4 there are pellets in three of the four cusps at the ends of the cross arms, as found on some coins of Phase I (e.g. Fig. 6, 2).

III. Sihtric – Godric and Stegn (Pl. 3, 7–8). A die chain involving six coins linking two moneyers. The obverse die, with a small cross on the front of the drapery and on the final O of the legend, is copied on another die used on three coins of Siult (Pl. 3, 9).

IV. Sihtric – Car (Pl. 3, 10–12). Three coins naming the moneyer Car from one obverse and two reverse dies. In its initial state (Pl. 3, 10) the obverse die omitted the cross behind the head, but this was subsequently corrected (Pl. 3, 11–12).

V. Sihtric – Færemin and Stegn (Pl. 3, 13–16). Six coins involving two moneyers, struck from one obverse and four reverse dies.

VI. Æthelred and Sihtric – Færemin and Siult derivative (Pl. 3, 17–20). Four coins, not all die-linked, but illustrating how coin inscriptions were copied within Phase II. Pl. 3, 17 has a corrupt obverse legend +ÆDELRE+A-BRNMNO, which is repeated on Pl. 3, 18. The reverse of this has the meaningless +SMI / REN / NMO / LI, apparently a copied from the first quarter of a Siult inscription (cf. Pl. 3, 5), and the remaining three quarters from a Færemin inscription (cf. Pl. 3, 20). This blundered reverse inscription is copied on several die-linked groups within the hoard. found on many coins including Pl. 3, 19. Note the two small pellets behind the hair on Pl. 3, 17, 19 and 20, copied from an original Phase I coin (cf. Fig. 6, 3).

VII. Thymn – Færemin derivative (Pl. 3, 21–24). A well-known group of coins has the enigmatic obverse legend +DYMNROE+MNE-DI. They are securely dated to the later part of Phase I Long Cross by their occurrence in the Igelösa and List hoards. Somewhat surprisingly, twelve coins in the Glenfaba hoard have this inscription, ten of them struck from the same pair of dies. Eleven of them have no pellets in the reverse quarters or a cross behind the head, and so they would appear to belong to Phase I. One of the single coins that is not die-linked (Pl. 3, 21) appears to be a classic example of the Phase I issue in the name of the moneyer Færemin. However, the ten die-duplicates (Pl. 3, 22–3) have a cross on the neck and a distinctive curly ‘J’ or ‘serpent’ symbol behind the neck which is also found on a number of later Phase II coins, and the reverse inscription is blundered. The weight of the separate specimen (1.36 g) is slightly heavier than those of the die-duplicates (1.16 g-1.26 g). The other non-die-linked coin (Pl. 3, 24) has the same

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90 A systematic study of the die-links within the hoard with coins elsewhere is being undertaken by Dr Bornholdt Collins. Those described here are examples drawn from preliminary work we have both undertaken on the hoard. I am most grateful to Dr Bornholdt Collins for allowing me to cite her work here.

91 Dolley 1978; Blackburn and Dolley 1979.
features as the die-duplicates, but it has small pellets in three or perhaps four of the reverse quarters, and all these eleven coins clearly belong to Phase II. They demonstrate, once again, how closely a die-cutter in Phase II could copy Phase I issues when he chose to.92

Several conclusions emerge from these examples. The earliest Phase II coins, including die-duplicates of the coin in the ‘Everlöv’ hoard, are well represented in the Glenfaba hoard, and many of them are intensively die-linked within the hoard. Their survival rate in this hoard is much higher than for any of the Phase I issues. The moneyers named on early Phase II coins – Færemin, Car, Godric, Siult, Stegn, Stybern – are closely die-linked with one another, i.e. they share common obverse dies. This is not a pattern that one normally sees at Anglo-Saxon mints, where moneyers are understood generally to have operated separately from their own private tenements. Such an arrangement was probably used at Dublin too, and it seems likely that these six moneyers, including the most common one, Færemin, were not actually producing the coins, but their names were merely being copied from Phase I coinages. The die-cutter at Dublin, who is quite likely to have been just one individual, was masterful at copying other coins, paying attention to minute details that caught his eye, although he was not above making mistakes such as omitting the cross behind the head or the four pellets in the reverse quarters. He copied both Phase I coins and other Phase II coins.

These points address most of the arguments previously advanced for attributing some early Phase II coins to the period of Phase I Long Cross or Helmet. Skilful copying was the Phase II die-cutter’s business. Even the evidence of the ‘Everlöv’ hoard can be counter-balanced by the heavy die-linking involving the dies that struck the one Phase II coin in that hoard. If these were contemporary with Phase I coins, one could reasonably expect them to have survived in similar numbers to those and to exhibit a similar degree of die-linking. The Glenfaba hoard, then, seems to confirm Dolley’s view that Phase II marked a deliberate new phase of coinage that followed after the Dublin Quatrefoil issue. This could have been as early as 1018, allowing just a year or so for Quatrefoil, and this would accord better with the evidence of the ‘Everlöv’ hoard.

Phase III – A further monetary reform

Among the substantial later grouping of coins within Phase II there are many coins with special ornamental marks on the bust or in the field. These include various combinations of pellets, crosses, a quatrefoil, ‘wishbone’, T-symbol, ‘serpent’ or J-symbol (Fig. 7, 1), ‘E’, and a naturalistic representation of a hand. Most of these varieties, including the single hand, occur in the Glenfaba hoard, and Bornholdt Collins’ work on die-linking within and outside the hoard should elucidate the pattern of use of these symbols, even if their function may remain uncertain. One variety that is absent from the hoard is that with an ‘E’ on the bust and in one quarter of the reverse (Fig. 7, 2).93 It is one of the final varieties of Phase II, and it is evident that the weight standard had collapsed from around 1.05 g to 0.6 g-0.7 g. This is one of the few varieties of Phase II that occurred in the Dunbrody hoard, which contained 1,400 Hiberno-Scandinavian coins predominantly of Phase III.94 It is also the only variety known to form mules with Phase III (Fig. 7, 3).95

The introduction of a new design, distinguished by one or, more usually, two stylised hands in quarters of the reverse, heralded a reform as deliberate as that introducing Phase II. The new coins are instantly recognisable, and the fact that mules with Phase II are so rare shows that the old dies were withdrawn and replaced with new ones. Seaby has suggested that the

92 The hoard contains other examples where Phase I features, including the large pellet behind the bust and lack of small pellets in the reverse quarters, have been copied during Phase II, showing that occasionally the desire to copy a prototype displaced the principle that Phase II coins should have a different symbol behind the bust and four small pellets on the reverse.
93 E.g. Seaby 1984, nos. 115–21.
94 Hall 1974, 80; Blackburn and Seaby 1976, 32.
95 Three specimens of the Phase II/III mule are known, one in SCBI Copenhagen V 199; one owned by the present author (illus. Fig. 7, 3; bt Baldwin 1973, wt. 0.90 g); and the third in the collection of C.J. Denton; see Seaby 1984, 9.
variety with one hand on the reverse belongs early in the Phase (Fig. 7, 5), but it then settles down using the basic two-hands design, though often with the obverse marked with additional ornaments, as had occurred in Phase II. One reason for the reform is evident, for the weight standard was raised from c.0.6 g to c.1.0 g.

It is likely that in Dublin the Phase III reform was accompanied by a formal withdrawal of the preceding issues, but elsewhere this could not be enforced, and so a small number of the latest varieties are found in the hoards from Dunbrody (Co. Wexford) and Peel (Isle of Man). The excavation finds from Dublin show that Anglo-Saxon coins were now effectively excluded, and indeed they become increasingly rare in Irish hoards too. Phase III is the last Dublin issue to be found in Scandinavian hoards, and in modest numbers at that, but the export of Anglo-Saxon and German coins to the Northern Lands was also declining, and they too are scarce after c.1050, so this need not be taken as a sign of Dublin’s increasing insularity. Its primary function was, no doubt, to provide an effective currency for the kingdom of Dublin, locally and regionally in Ireland and around the Irish Sea, and importantly a source of income from the mint. It achieved that and more, providing a tangible symbol of national identity.

Conclusions

In this lecture I have surveyed the first fifty years or so of the Hiberno-Scandinavian coinage in the light of new find evidence, and I have tried to elucidate the nature of the monetary system and the policies that lay behind it. The three Dublin hoards of the earlier 990s have brought a dramatic revelation that there already existed an effective coin economy based on imported Anglo-Saxon coins. This helps one understand how Sihtric ‘Silkbeard’ could introduce so effectively a new currency based on his own local coinage. It was an ambitious project, which seems to have worked well initially. His Crux type, within a very short time, appears to have largely replaced the foreign coins circulating in Dublin. With the change of

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96 Seaby 2002, 320.
type in England, Sihtric decided to follow suit, and to remint the Crux type with his own version of the Long Cross type. This seems to have been effective, to judge from the scarcity of Dublin Crux coins in Scandinavia and elsewhere. However, the following three issues of Phase I were not struck on the same scale, and they may not have accomplished a renewal of the earlier currency, if indeed that was their goal. That Sihtric in the mid- to late 990s should have exercised the leadership and demonstrated the political and economic power necessary to establish this system of coinage casts a rather different light on the period than that of the usual narrative account of political and military events.

The initiatives introducing Phase II in c.1018 and Phase III in c.1035 likewise were radical reforms, driven by a desire to raise the weight standard for the coins, to enforce a managed coin economy excluding foreign coins, and to provide a distinctive national identity for the coinage. Certainly it was different from the Anglo-Saxon system, but then so too were the coinages of most of Continental Europe. The weight standard of the Dublin penny went through cycles of decline and restoration, but that was also typical of many Early Medieval coinages, including those in England. What followed after the mid-eleventh century is somewhat unclear. This is a period of coinage ripe for research, preferably bolstered by some new finds, to understand the complications of the many coin types that make up Phase V, the uniformity of Phase VI and the exotic bracteates and semi-bracteates of Phase VII.

**APPENDIX**

**HIBERNO-SCANDINAVIAN COINS FOUND IN ENGLAND**


6–7. Two coins of Phase V, new type with Long Cross obverse and ‘Jewel Cross’ reverse (wts. 0.41 g and 0.45 g) found during archaeological excavations in the backfill of a grave. Robinson 1993, nos 9–10.

**KEY TO PLATE 3**

Coins from the Glenfaba Hoard, Isle of Man, 2003 illustrating groups I-VII discussed on pp. 131–2 (references are to Glenfaba photo nos). Images are reproduced courtesy of the Manx Museum, Douglas.

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PLATE 3

BLACKBURN: THE DUBLIN COINAGE c.995–1050