ADDRESS BY STEWART LYON
PRESIDENT OF THE BRITISH NUMISMATIC SOCIETY

HISTORICAL PROBLEMS OF ANGLO-SAXON COINAGE—(4) THE VIKING AGE

Introduction

Two years ago I reviewed the coinage of the ninth century in an attempt to identify the areas in which the numismatic evidence appeared to have a significant bearing on the political history of the period. This year, in my final Address, my aim is to draw attention to the significance of the coins for the political and economic history of the century and a half from Alfred’s treaty with the Danes which followed the capture of London in 886 until the end of Danish rule in England in 1042.

The volume of the material is so great that in the course of a short address I can do little more than illustrate the results of past numismatic research and point the direction for future work.

The Cuerdale hoard

Our knowledge of the coinage of England during the last fifteen years of the ninth century is heavily dependent on the enigmatic Cuerdale hoard of 1840. Cuerdale is the name for the area on the south bank of the Ribble, just east of Preston, where nowadays the M6 motorway crosses the river. In the first volume of the British Numismatic Journal1 W. J. Andrew recorded a tradition long held by the people of Walton-le-Dale, the village at the south-western end of Cuerdale, that ‘if you stood on the headland and looked up the valley of the Ribble, towards Ribchester, you would gaze over the greatest treasure that England had ever seen. So firmly was belief in the truth of the legend impressed on the minds of the farmers’, wrote Andrew, ‘that several attempts were made to discover the treasure: indeed, only some thirty years before its discovery, one of them ploughed a field near the actual site, twice over in the same furrows, in the hope of gaining the trove.’

The hoard was discovered by a labourer who was removing earth from a ridge about forty yards from the river. The chest in which it was contained could therefore have been buried by someone who was setting out on a voyage over the Irish Sea, or who was returning from such a voyage; alternatively its owner might have been using the Roman road from Wigan which must have crossed the river at Walton-le-Dale.2 The contents amounted to at least 7,000 coins and nearly one thousand ounces of silver ingots, ornaments, etc. To put this in perspective the coins would have weighed about 300 Troy ounces, barely a quarter of the total weight of the treasure. If we take a Troy ounce as being rather more than the weight of four Anglo-Saxon shillings of silver3 the Cuerdale treasure must have weighed in the region of 6,000 of these shillings, or five-sixths of a king’s simple wergild or blood price. This is a substantial sum by any reckoning.

1 BNJ i (1904), pp. 12-16.
3 See my previous Address on denominations and weights (BNJ xxxviii (1969), at p. 218).
The coins in the hoard are remarkable in many respects. If we exclude the handful of Kufic coins those in the names of English kings and archbishops account for one part in seven; Carolingian and other continental coins for another part; the memorial coinage to the martyred king Edmund of East Anglia two parts, and the so-called Northumbrian viking coinage the remaining three parts.

Of the southern English coins, only one, of Archbishop Ceolnoth,¹ can be dated with confidence to before c. 874. There were no coins of the *lunette* type which was current when Alfred came to the throne in 871 and which appears to have been continued for the first few years of his reign. The great majority were of the non-portrait issues of Alfred which seem to have superseded the *London monogram* and similar portrait types towards the end of the 880s.² But about fifty were portrait and non-portrait coins of Edward the Elder by no fewer than twelve moneyers, together with two pence of Bath with no moneyer's name. Since all but one of these moneyers used very similar reverse dies in Alfred's reign it seems likely that the latest English coin in the hoard dates from within five years after Alfred's death. It is interesting to note that the range of the twenty-six weighed pennies of Edward in *BMC* (excluding the Museum's Bath penny) is 23.2 to 25.7 grains (1.50–1.67 g.) with an average of 24.5 grains (1.59 g.); the Bath penny weighs 28.0 grains (1.81 g.).

Among the continental coins was an Italian fragment issued in the names of Pope Benedict IV and Louis the Blind. It appears to be limited in date to 901–3 since Louis was not crowned emperor until 901 and Benedict died in 903. There were also a number of coins of Lotharingia which have been attributed to Louis the Child (900–11). These are the latest coins that can be at all closely dated, and they appear to be contemporary with the latest English coins in the hoard. The bulk of the continental coins, however, were from mints in Aquitaine and the Loire valley. More than 70 per cent of them bore the name 'Charles', either literally as *Carlus* or in the form of the *Karolus* monogram. These could be coins of Charles the Bald (d. 877), Charles the Simple (king of all Francia from the death of Odo in 898) or coins of a *type immobilisé* issued between these dates. In the case of the mint of Melle, which accounts for about five out of six coins of 'Charles', the type seems to have been immobilized, but even at the mints which also struck in the name of Odo, who usurped the throne from 887 till 898, the 'Charles' coins still have not been satisfactorily divided between those struck before his reign and those minted afterwards. It might help our understanding of the origins of the Cuerdale hoard if this were to be done.³

Looking at the coins of Odo as a clear example of an issue which is contemporary with the bulk of the English coins in Cuerdale, we find that nearly 60 per cent are from the mint of Limoges. With the caution that the coins in the *BM Sylloge* greatly underrepresent that mint, it can be noted that their average weight is 25.7 grains (1.67 g.), about 5 per cent higher than the English coins of Edward the Elder.

Nearly as large as the southern English and the continental group together was the segment of the hoard representing the memorial coinage to Edmund of East Anglia,
who had been murdered by the Danes in 870. Invoking the name of the canonized martyr, the originators of the series used designs for obverse and reverse which were traditional in East Anglia. In a recent paper commemorating the 1100th anniversary of Edmund’s martyrdom, C. E. Blunt says that ‘bearing in mind the fact that East Anglia had had an active mint or mints in the lifetime of Edmund and that the numismatic evidence points clearly to there having been substantial issues there in the later years of Edward the Elder, there seem good grounds for believing that the St. Edmund coins . . . were for the most part issued from one or more mints in East Anglia’. He goes on to suggest that the great number and variety of the coins found at Cuerdale is not inconsistent with an issue which could by then have lasted ten years, pointing to the king having been recognized as a saint little more than twenty years after his death.2

There are two features of particular interest in the St. Edmund coinage. One is the Germanic flavour of the list of moneyers;3 the other is the metrology of the coins. A distribution of the weights of 633 Cuerdale pence in the British Museum shows a median weight of almost exactly 21 grains (1.36 g.), with fewer than a quarter of the coins weighing 22 grains or more.4 It appears therefore that the weight standard of the St. Edmund coins in the Cuerdale hoard was barely five-sixths that of the contemporary issues from mints in the area under English control, and four-fifths of the standard in use in Francia.

The difference in weight standards is significant. As I have argued previously,5 Alfred raised the weight standard of the coinage under his control from its previous level of around 20 grains (1.30 g.) to over 24 grains (1.56 g.) beginning with the London monogram type. The ninth-century East Anglian coinage was marginally heavier on average (c. 21 grains) than that of Wessex, and the St. Edmund coinage was in the East Anglian tradition. Notwithstanding the Germanic names of the moneyers, it is hard to take seriously the argument advanced by F. Banks that the coins were a gift to the impoverished church in East Anglia from their brethren on the Continent.6 The duration of the issue, and its gradual degeneration in both style and, subsequent to Cuerdale, in weight also, make nonsense of this theory.

If the St. Edmund coinage still leaves us with unsolved problems they are minor ones compared with those presented by the viking coinage which comprises three of the seven parts of the hoard. Like the St. Edmund coinage it would be little known to us today were it not for this hoard; as it is, we have 3,000 coins. Most are in the names of one or other of two kings, Siefred or Sievert and Cnut: the evidence of a study of the dies is that the coins in the name of Cnut are, in general, the later.7 Many bear the name of a city, Ebraice civitas; more have an enigmatic substitute in the word Cunnetti; the two groups are joined through common dies in the name of Cnut. A fair number of coins have ecclesiastical inscriptions on one or both sides, namely Dīns (i.e. Dominus) Deus O (i.e. Omnipotens) Rex and/or Mirabilia Fecit. A few bear the Karolus monogram—a clear link with the Continent. Some imitative pieces in the name of Cnut carry the name of the Frankish port of Quentovic.

1 Early coins of the series use the vocative form Seo Eadmunde Rex.
3 Ibid., pp. 242.
4 Ibid., p. 250.
Once again Banks sees this as a coinage struck on the Continent and sent as a gift to the impoverished church in the Danelaw. Once again, however, the weights of the coins are in the ninth-century English tradition, and there is sufficient variation in style and internal evidence of appreciable duration for a single donation to be ruled out. The obvious interpretation of Ebraice is that it is a Latinizing of York, unusual in that the Roman name of the city was Eboracum but not unusual in that the feminine gender is normally adopted in ninth-century English mint-signatures. The combination of the Karolus monogram with Ebraice stresses the Frankish inspiration of the coinage but does not destroy the attribution to York, for the same combination is found on a post-Cuerdale issue of coins in the name of St. Peter, and its gradual evolution on that coinage to the form Eborace is conclusive. The arguments have been well stated by B. H. I. H. Stewart and there is no need to repeat them here.

We are still left, however, with the problem of the identity of Siefred/Sievert and Cnut, and the meaning of Cunnetti. Since the chronicler Æthelweard refers to a pirate named Sigeferth from the land of the Northumbrians, who raided Devonshire in 893–4, it seems reasonable to identify him with the Siefred/Sievert of the coins. But York appears to have been ruled by one Guthfrith until 895, whoever Cnut was he was not Guthfrith, as numismatists at one time believed, for it is clear that the coinage in the name of Cnut continued until close to the deposition of the hoard or even beyond. Speculation about the meaning of Cunnetti continues unabated: in particular are the coins to be read as a whole, viz. Cnut rex Cunnetti, or not?

There is another problem presented by the hoard, namely the large quantity of imitative coins which it contained. Mostly these copied Alfred’s London monogram and non-portrait two-line types. Many can be distinguished by their crude style and blundered inscriptions; others can be identified by their light weight. But there is a puzzling group of coins which can scarcely be described as imitative, for they have a distinctive obverse inscription Ælfred (or Elfred) Orsnaforda (or Ohsnaforda); the moneyer’s name is Bernwald. These used to be attributed to a mint at Oxford. However, their average weight is more in keeping with Danelaw minting, and Messrs. Dolley and Blunt have mentioned the possibility of Horsforth, now part of Leeds. An obvious difficulty in accepting this attribution (assuming it is philologically acceptable) lies in the use of Alfred’s name so close to the viking mint of York. This is reinforced by the presence in the Cuerdale hoard of a coin of Bernwald of southern style in the name of Edward the Elder. Without denying that most of the Orsnaforda coins are Danelaw imitations I think the similarity of style of one or two of them (which read Ohsnaforda) with the coin

---

1 Cf. Dorovernia (Canterbury), Dorobrevia (Rochester), Londiniæ (London, in the monogram on Alfred’s coins).
4 For a full discussion see Lyon and Stewart, art. cit.
5 Miss M. M. Archibald has suggested to me that this approach is particularly relevant to the London monogram issue. It may also apply to the non-portrait types, our knowledge of which is dominated by Cuerdale. For example, the Vatican hoard of c. 1928 (BNJ xxxii (1964), pp. 7–29), deposited early in Athelstan’s reign, contained eighteen coins of Alfred, only two of which weighed less than 23.5 grains (1.53 g.). This attribution was rejected by C. L. Stainer (Oxford Silver Pennies, Oxford, 1904).
6 21.2 grains for thirty coins (BMC 118–47).
7 R. H. M. Dolley and C. E. Blunt, ‘The Chronology of the Coins of Ælfred the Great, 871–99’, in Anglo-Saxon Coins at p. 91. The argument is supported by reference to the use of a ‘cross on steps’ on one of Bernwald’s coins, similar to that used by Siefred.
of Edward the Elder suggests that the prototype was southern and may indeed have been from Oxford (Pl. IX, 11–12; significantly, the Alfred coin is of full weight).

Finally, for the deposition of the hoard it would be hard to improve on the generally accepted dating of c. 903. In his Presidential Address to the Royal Numismatic Society in 1958 Mr. Blunt drew attention to an apparent influx of Irish-Norwegians into Lancashire after their expulsion from Ireland in 902, and suggested that it might 'have its relevance in considering the circumstances in which the Cuerdale hoard came to be deposited'. Mr. Blunt has for personal as well as numismatic reasons made a special study of this hoard over many years, and it is fitting that he should retain the last word on the subject.

**Edward the Elder to Edgar’s reform**

The numismatic history of the seventy years after the burial of the treasure at Cuerdale follows the varying success of the English kings in their struggle to reconquer the Danelaw. The English coinage was based essentially on the non-portrait/two line horizontal inscription type introduced by Alfred, with intermissions of portrait coins, pictorial reverses, and circular reverse inscriptions bearing the name of the mint. The ultimate coinage of the Norse kings of York in the middle of the century copied the English, but their earlier coins incorporated Scandinavian motifs.

Although smaller hoards generally cover a more compact period, the Chester hoard of 1950, which was deposited late in Edgar’s reign, includes coins of Edward the Elder and even a single coin of Alfred. This suggests that there was no complete recoinage between c. 887 and c. 973, though a glance at a tray of pence of Edward the Elder will show from the evidence of ‘overstrikes’ that some reminting took place.

The tenth century saw the expansion of the number of mints from a few major cities into a network including most boroughs. The majority of the coins issued before Edgar’s reform do not bear the name of the mint, and their classification rests firstly on regional styles of lettering and ornaments, and secondly on the association of mint-signed and unsigned coins bearing the same moneyer’s name and having the same epigraphic style. A detailed study of the coinage as a whole is needed, and it is to be hoped that the two scholars who have worked most closely in this field—Mr. Blunt and Mr. Dolley—will publish one.

Among the mints named on the coins is *Weardburh*, which must surely be identified with the fortress built by Alfred’s daughter Æthelfleth, Lady of the Mercians, in 915. In view of the doubt which exists today about its location it is of no little interest that it was sufficiently enduring to possess a mint, not only in Æthelstan’s reign but also in Edgar’s, as F. Elmore Jones and C. E. Blunt have shown. They point to the title given to

---

3. i.e. the striking of a new coin using an old coin as though it were a blank.
5. For an assessment of Æthelfled’s achievement see F. T. Wainwright, ‘Æthelfled Lady of the Mercians’ in *The Anglo-Saxons*, ed. P. Clemoes (Cambridge, 1959), pp. 53–69. On a personal note Dr. Wainwright taught me history at school and was largely responsible for stimulating my interest in the Anglo-Saxon period. A pupil of Sir Frank Stenton, his untimely death was a loss to numismatics and to the study of place-names as well as Dark Age history.
Ethelstan on his two surviving coins of *Weardburh* as only known otherwise on coins of Gloucester, Hereford, and Stafford, and the moneyer’s name as otherwise occurring at Shrewsbury, and suggest a very tentative attribution of the *Weardburh* coins to the West Midlands, possibly to the country that marched with Wales.

The post-Cuerdale viking coinages of the tenth century begin with the St. Peter pence of York, which may have been an ecclesiastical issue in the tradition of the *Dominus Deus* series\(^1\) or alternatively a municipal issue.\(^2\) These were the St. Peter coins without sword, and their style gradually degenerated, as did their weight and diameter. In this respect they parallel the later St. Edmund coinage. The chronology of the St. Peter series has been discussed most recently by B. H. I. H. Stewart,\(^3\) who has shown on the hoard evidence that the latest St. Peter coins, depicting a sword on the obverse and a mallet on the reverse cannot be dated much, if at all, before 925.\(^4\) In suggesting, too, that the very rare St. Martin coinage of Lincoln may date from the early or mid 920s he modifies the dating of both series as expounded by Mr. Dolley in his useful monograph *Viking Coins of the Danelaw and of Dublin*.\(^5\) They may even have continued beyond the death in 926–7 of the Norse king Sihtric Caoch, of whom there are very rare coins with a design similar to the earliest of the sword St. Peter’s (i.e. those with a cross on the reverse). Thus Athelstan’s capture of York may not have led to the immediate cessation of the Viking coinages, although York certainly became a major mint for the English king.

When Athelstan died in 939 Anlaf Guthfrithsson, king of Dublin, invaded Northumbria and occupied York; next year a treaty with Edmund gave him Leicester, Derby, Nottingham, and Lincoln as well. The viking coinage from 939 to 944, when it is recorded that Edmund expelled Anlaf Guthfrithsson’s successors, Anlaf Sihtricsson and Regnald Guthfrithsson, has been brilliantly reconstructed by Michael Dolley, who in the process has shown from the coins that there was a fourth king at York during this period, Sihtric Sihtricsson.\(^6\)

The last chapter in the saga was written by Eric Bloodaxe, son of Harold Fairhair of Norway, who seized York for a time in 947–8 but was forced out by Eadred. Anlaf Sihtricsson was restored from 949 to 952, but Eric then returned, as Sir Frank Stenton puts it, ‘in defiance alike of the Irish vikings and the king of England’.\(^7\) He was expelled again in 954 by the Northumbrians and Eadred finally regained the city. Mr. Dolley has also succeeded in identifying coins of each phase of this chapter which completes what Professor Gwyn Jones has called ‘a kaleidoscopic picture of change’.\(^8\)

For nearly twenty years the pedestrian English coinage continued, first under Eadwig and then under the young king Edgar. Some remarkable halfpence enlivened it,\(^9\) but whether it was the light weight of the pence or a debasement of their silver, or whether Edgar wished to mark his delayed coronation,\(^10\) there was a transformation in the last years of his reign which was to leave its mark on the coinage of the next three centuries.

---

\(^1\) *Supra*, p. 195.


\(^3\) Art. cit.

\(^4\) For example, the 1958 hoard from Morley St. Peter, Norfolk, which was deposited early in Athelstan’s reign, contained thirteen pence without sword and only one with sword; this had a cross, not a mallet, on the reverse.

\(^5\) Published by the Trustees of the British Museum, 1965.


\(^10\) Dolley and Metcalfe, art. cit., p. 152.
Edgar’s reform and its consequences

Whatever the reasons for Edgar’s reform it resulted in virtually every English penny minted from then until 1278 bearing on the obverse the king’s name and title and on the reverse the moneyer’s name and the mint of issue. It resulted, too, in a series of changes of design, synchronized at all mints. While these changes may not have involved a complete recoinage of previous issues they may well have led to the gradual changing of old money for new so that witnessed payments, and in particular payments of taxes, could be made in coins of the current issue. Unfortunately the documents are silent on this point, but a highly organized system such as this must have had a definite fiscal motive.

Until well into the reign of William the Conqueror there are variations of weight standard within each issue which in general are in a downward direction, with a recovery at the beginning of the next issue. Sometimes, however, the trend is reversed during the currency of an issue, the most striking example of this apparently coinciding with the abolition of heregeld in 1051. In the early issues at least, geographical variations in weight standards are found, as in Æthelred II’s crux and long cross issues when the Winchester mint, like others in central Wessex, never varies from the initial standard of the issue while mints elsewhere in the country drop the standard by as much as 25 per cent. A detailed analysis of the metrology of nearly 35,000 coins from Edgar’s reform to the Norman conquest is given in a recent publication by the Swedish historian Bertil Petersson which is essential reading for the serious student of the period.

The scholar who has inspired and led the extensive research work that has been carried out into the post-reform coinages in the past two decades is, of course, Michael Dolley, and the results of his unparalleled zeal and enthusiasm have aroused much interest among historians. In one important respect I should, however, record my doubt, and that is his attempt to fit the coinage from Edgar’s reform to the death of Cnut—a period of between sixty and sixty-two years—into ten more or less rigid sexennial issues. This mainly depends for its justification on certain aspects of the hoard evidence and on the identification of the opening or closing of certain mints with events mentioned in the Anglo-Saxon Chronicle. It also depends on classifying as two distinct issues the so-called first hand and second hand types of Æthelred, which are distinguished from one another too subtly for this judgement to have gained universal acceptance. Equally, however, I am reluctant to accept without more evidence Petersson’s emendation of the ten sexennial issues to eight septennial issues and a final one of four years. It seems to me that the need for a new issue could have been influenced by some factor which did not recur at equal intervals: a possibility suggested by Petersson’s own analysis is that the average weight of the coins in circulation was not allowed to fall below some critical figure.

In considering when the changes of design took place insufficient attention seems to have been paid to relating the composition of the Scandinavian hoards to the recorded circumstances in which the country was harried by the vikings and large tributes were

---

2 H. B. A. Petersson, Anglo-Saxon Currency (Lund, 1969). The text should, however, be read critically, for it goes far beyond the evidence in its development and application of Sture Bolin’s theory of overvalued coinage—see my review article just cited.
3 The evidence is reviewed, hypercritically, by Petersson at pp. 72–8.
4 Petersson, op. cit., p. 86.
For example, the mints in the Thames estuary, especially Colchester, Maldon, and Southwark, are greatly over-represented in Æthelred’s crux issue, including late (i.e. light) coins. This could relate either to Olaf Tryggvason’s expedition of 991, when the battle of Maldon was fought and 10,000 pounds were paid, or to Olaf and Swein’s assault on London of 994. Alternatively could not this latter attack, which was followed by the harrying of the coast of south-east England, the taking of winter quarters at Southampton, their forces being provisioned throughout the West Saxon kingdom and the payment to them of 16,000 pounds in money, be connected with the large influx of early long cross coins into Scandinavia which has been demonstrated from H. R. Mossop’s die-study of the mint of Lincoln?

That the vikings left England for two or three years following Olaf’s confirmation at Andover is borne out by the Chronicle. If their return to Scandinavia occasioned the influx of these coins, the long cross issue would have begun in 994, against Dolley’s date of 997 and Petersson’s of 996. But we would still have to account for the tributes of 24,000 pounds in 1002 and 36,000 pounds in 1007: the latter was paid during the currency of the helmet type according to both Dolley and Petersson, but that type is much scarcer in Scandinavian finds than either the long cross issue which preceded it or the last small cross type which followed it. Payments during this final issue of Æthelred, such as the 21,000 pounds in 1014, occasion no surprise, but if the sums of the previous decade were taken back to Scandinavia in coin it is not easy to determine in what currency they were paid. Pending a reconciliation of the hoards and the documents the chronology of Æthelred’s coinage, particularly the middle issues, cannot be regarded as established beyond reasonable doubt, whether on Dolley’s hypothesis or Petersson’s.

Mint organization in late Anglo-Saxon England

In conclusion I would like to say a few words about the mint organization which is disclosed from a study of the post-reform issues of late Anglo-Saxon England. Apart from the inscriptions on the coins we have three principal tools which help us in deducing information about this organization. Two of these have already been mentioned in a pre-reform context, namely die-cutting style and metrology. For the post-reform issues style is a powerful weapon, because although different hands could produce very similar letter founts the portraits they engraved are easier to distinguish. It thus becomes possible to isolate schools of die-cutting within a particular issue. Combining the evidence of style with the evidence of metrology enables one to determine whether the hands concerned were at work simultaneously or consecutively.

It does not necessarily follow that because a particular hand can be identified with a particular mint or group of mints it was at work in that area. The possibility must always be admitted that a group of engravers worked at a centre such as London or Winchester and that each engraver serviced the mints in a given area. However, the more one examines the coins of Æthelred II and Cnut the less likely this explanation appears, for that period at least. The evidence of localized die-cutting is almost overwhelming at times.

Control of design from Winchester in the middle of Æthelred’s reign can be demonstrated by the experiments that took place there before a design was changed. The

1 Anglo-Saxon Chronicle, s.a. 994.
2 H. R. Mossop and others, The Lincoln Mint c. 890–1279 (Newcastle upon Tyne, 1970), p. 18 and Fig. 1.
attempt to introduce an intermediate small cross type between crux and long cross is an example. But by the end of the reign the experiments were taking place in London. A startling example of this is the Bergen coin, broken into fragments, which depicts the king in a pointed helmet on a coin which is otherwise of the last small cross type (Pl. IX, 9). The pointed helmet was not, in fact, used as a regular design till the issue next but one following.

The third tool which reinforces style and metrology is the die-link. If two coins are struck from the same pair of dies they are described as die duplicates, but if only one die is common to the two coins there is said to be an obverse die-link or a reverse die-link between them, according to whether the common die is the obverse or reverse respectively. The simplest example is where the common die links two obverse or reverse dies which differ only in detail. Such a case may indicate that the linked dies were used concurrently with the common die, or that one of the linked dies was superseded by the other during the lifetime of the common die. Links of this kind are useful to numismatists in establishing the chronology of a sequence of dies.

Sometimes the death or expulsion of one king and the accession of another did not immediately lead to a new issue but merely resulted in the king’s name being changed on new obverse dies. A reverse die link between obverse dies of the two reigns establishes the first die as in use at the end of one reign and the second die at the beginning of the other. Such links occur between Edgar and Edward the Martyr, and between Edward the Martyr and Æthelred II, in the first small cross issue which began the reform. More significantly for its historical implications, a common reverse die links an obverse die of the ninth-century Archbishop Wulfhere of York with an obverse of each of the Northumbrian kings Æthelred and Osberht. On the strength of this and other numismatic evidence H. E. Pagan has recently proposed a revision of the dates of the kings and archbishops which have come down to us via Symeon of Durham and Roger of Wendover.

A common form of obverse die-link is where an obverse die has been used by more than one moneyer at the same mint. This could mean that one moneyer was superseded by another, but more usually it indicates that obverse dies were not the exclusive property of one moneyer. In the thirteenth century it is commonplace to find multiple die-links involving all the moneyers at a mint, and in this case we can draw the conclusion that the obverse dies in use at the mint were stored together and were issued indiscriminately to the moneyers whenever work recommenced.


2 I am grateful to Mr. Dolley for supplying me with a photograph of this coin the significance of which was immediately apparent to him when he discovered it many years ago on a visit to Norway.


4 Edgar and Edward are linked by the York moneyer Dun (*BMC* Edgar 169 and *BMC* Edward 7; an unpublished die-link). A Stamford link between Edward and Æthelred was published by W. C. Wells in *BNJ* xxiv (1942), p. 77.


6 See, for example, the variations in die-linking at Lincoln as shown in the diagrams following the plates in Mossop.
The most interesting die-links from the point of view of mint organization, however, are those in which a common obverse die is found with reverse dies bearing different mint-signatures. If the moneyer is the same, and the mints are adjoining, the implication is that he serviced both mints. Die-links in this category include several between Winchester and Southampton in the reigns of Æthelred and Cnut. There is also the important link in Cnut's quatrefoil type between Exeter and Gothaburh involving the Exeter moneyer Carla. This link, taken with the stylistic evidence of other coins, enabled Dolley and Elmore Jones to establish Gothaburh as a mint within reasonable distance of the Devon burh and possibly identical with the fortress of Iudanburh where Archbishop Wulfstan was held prisoner by King Eadred.

As a further example of the importance of obverse links of this class in establishing the location of unidentified mints, the problem can be cited of two mints which are die-linked in the first hand type of Æthelred II and which are named on the coins as Brygin and Niwan. The moneyer’s name is Æthestan. Michael Dolley, who discovered the die-link, plausibly identified Brygin with Bridgnorth in Shropshire, and suggested that Niwan was to be found nearby. This attribution now seems unlikely, because yet another reverse die of Æthestan’s has been found with the same obverse and this time the mint-signature is Caft, which is an unusual but not unique abbreviation of Shaftesbury in Dorset (PL IX, 1–4). I hesitate to speculate on the identity of Brygin and Niwan in the light of this discovery, but it would be surprising if they were very far from Shaftesbury.

When the die-link involves different moneys at different mints the explanation may not be so simple. What, for example, are we to make of links such as the hitherto unpublished one between London and Gothaburh in last small cross? The obverse die is of impeccable style for a mint in the south-west. It was used by two Gothaburh moneys, one of whom is also known for Exeter in the same issue. There is, however, a coin in my own collection which combines this obverse die with a reverse of the London moneyer Leofwine (Pl. IX, 10). Not only is there no other instance known to me of an obverse die of Exeter style being associated with a London mint-signature, but also the reverse die of Leofwine is of a style of lettering quite foreign to London. The style is, I think, very similar to that used on one of the Gothaburh dies. Was Leofwine’s coin really struck at London? And what is perhaps even more disconcerting, had this die-link been discovered before the links between Gothaburh and Exeter what theories might have been advanced about the location of Gothaburh?

As it happens, Leofwine of London is also involved in two other links of the same kind in last small cross. In one of these (Pl. IX, 5–6) he uses an obverse die which is otherwise known for the emergency mint of Sith(m)esteburh, which has been identified by Dolley and Elmore Jones with the hill fort of Cissbury, Sussex, on the strength of a die-link with Chichester in Cnut’s quatrefoil issue. Leofwine’s reverse die seems to have stylistic affinities with the die that is linked to ‘Gothaburh’. In the final link so far discovered, Leofwine is associated with the Stamford moneyer Æscman (Pl. IX, 7–8). The obverse die is of a style firmly associated with a die cutter who also served the mint

---

1 See for example BNJ xxxv (1966), pp. 25–33.
3 BNJ xxviii, pp. 92–9.
4 Hild. Æthelred 3335.
5 The coins are illustrated in BNJ xxviii (1956), Pl. XXII, nos. 6–7.
6 Loc. cit. no. 7.
7 BNJ xxviii, pp. 277–82.
8 Leofwine’s coin is Hild. Æth. 2705 (1-08 g.).
of Lincoln. In this case the style of Leofwine's reverse die is also typical of the Lincoln area.\(^1\)

It would, I suggest, be going far beyond the evidence to say that the explanation for this curious set of die-links must be that all the coins involved (including the ‘Gothaburh’, ‘Sith(m)esteburh’, and Stamford coins) were struck at London. Nor does it seem possible to argue that the three obverse dies were sent to London from their respective mints and were used there by Leofwine: the stylistic evidence of his reverse dies is against such a hypothesis. One is driven to the conclusion that Leofwine was no ordinary moneyer, and that he actually travelled (with the king?) to ‘Gothaburh’, Cissbury, and Stamford and was required to coin silver in each of these places. The London mint-signature can be explained on the basis that he was not officially authorized to mint coins at any of the three mints involved, and that the responsibility for any deficiency in the coins he struck there could not therefore be placed on the local minting authority. Only by using the signature of his accredited mint could he effectively be brought to account.

This conclusion, if valid, is of the greatest importance in studying the mint organization of the period. It provides at one and the same time a means of explaining unusual obverse die-links between different moneyers at different mints, and a warning against accepting the mint-signature on a coin at its face value, particularly if the coin is a stylistic oddity for the mint.

Finally, if a link does not simply involve one obverse and two reverse dies but extends to a chain of mints, and if it also involves ‘mules’—that is, coins with an obverse of one issue and a reverse of another—it becomes necessary to consider whether the coins were minted outside England. Many examples of chain links of this kind are known: sometimes they involve dies which are undoubtedly of English workmanship and others which are crude imitations.\(^2\) In such cases we must presume that the English dies were captured or were deliberately exported. That exporting did occur seems clear from some quatrefoil dies of Cnut with his Danish title which can only have been cut at the centre responsible for the Lincoln mint.\(^3\) The reverses bear the names of moneyers Godwine and Leofnoth, who for some reason are attributed to Winchester though no moneyer of the latter name is known from a true coin of that mint.\(^4\)

Much remains to be learnt about mint organization in late Anglo-Saxon England from a thorough analysis of dies. Systematic searching for links between mints has so far been limited to a few of the issues which are visually easy to work with.

**Conclusion**

May I end on a personal note? In setting myself the task of delivering a series of addresses of this kind during my Presidency I was only too well aware of the gaps in my understanding, both of coins and of history. I expected to add more to my own knowledge in the process than I was likely to add to that of my fellow members. Certainly I have learnt much: I hope I have not done so at the expense of boring my audience at five consecutive Anniversary Meetings.

---

\(^1\) The coins involved are Hild, Æth. 2682 (1.02 g.) and 3432 (1.27 g.).

\(^2\) See, for example, *BNJ* xxx (1961), pp. 235-51.

\(^3\) Compare, for example, Lockett Sale Catalogue, Pt. III (Continental) lot 567 with the Lincoln coins illustrated in Mossop.

\(^4\) For a discussion of Leofnoth see *BNJ* xxx (1961), p. 244, and Pl. XIII.
KEY TO PLATE IX

1-4 Æthelred II, first hand type, moneyer Æthestan, from a common obverse die. The order of striking appears, from the rust-marks, to be as shown:
1. Mint-signature ‘Niwan’: SHM INV. 9392-2 (1.49 g.).
2. From same dies as 1: Stockholm, Systematic Collection, duplicate of Hild. Æthelred 3447 (1.62 g.; the Hildebrand coin weighs 1.60 g.).
3. Mint-signature ‘Brygin’: Stockholm, Hild. Æthelred 104 (1.52 g.).
4. Mint-signature ‘Caft’ (Shaftesbury): Stockholm, Hild. Æthelred 3335 (1.38 g.).

5-6 Æthelred II, last small cross type, from a common obverse die of a 'London' style:
5. Moneyer Godwine (GODRINE), mint-signature ‘Sithe’ (Cissbury): Hild. Æthelred 3409 (1.22 g.).
6. Moneyer Leofwine (LEOFINE), mint-signature ‘Lun’ (London): Hild. Æthelred 2705 (1.08 g.).

7-8 Æthelred II, last small cross type, from a common obverse die of 'Northern A (Lincoln)' style:
7. Moneyer Æscman, mint-signature ‘Stan’ (Stamford): Hild. Æthelred 3432 (1.27 g.).
8. Moneyer Leofwine (LEOFINE), mint-signature ‘Lunden’ (London): Hild. Æthelred 2682 (1.02 g.).

9 Æthelred II, last small cross type, unique variety with obv. king wearing a pointed helmet; rev. +EALDRED MON LUND: Bergen museum (photograph kindly supplied by Mr. Dolley).

10 Æthelred II, last small cross type, from an obverse die also used at ‘Gothaburkh’ by moneyers Gods and Wulnicer (Hild. Æthelred 1131 and 1137—respectively 1.77 and 1.11 g.—see BNJ xxviii (1956), Pl. XXII, (6-7):
   Moneyer Leofwine, mint-signature ‘Lunde’ (London): author’s collection (1.31 g.).

11-12 Coins of Alfred and Edward the Elder, moneyer Bernvald, from reverse dies of similar style: both from the Cuerdale hoard:

Note. Nos. 1-9 are enlarged ×2; nos. 10-12 are actual size.