

ANGLO-SAXON NUMISMATICS

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At the founding of the British Numismatic Society the state of knowledge of the coinage of England between the departure of the Romans and the Norman Conquest is best exemplified by three very different publications from the last two decades of the nineteenth century. They are, first and more generally, *A Catalogue of English Coins in the British Museum, Anglo-Saxon Series, Volume I* (1887) by Charles Francis Keary and *Volume II* (1892) by Herbert A. Grueber and Keary (*BMC*); secondly, for the late period, *Anglo-Saxon Coins in the Royal Swedish Cabinet of Medals at Stockholm, all found in Sweden*, by Bror Emil Hildebrand (1881) ('Hildebrand'); and, thirdly, the catalogues of the hitherto unrivalled collection that had been formed by Hyman Montagu and was sold by Sotheby, Wilkinson & Hodge between 1895 and 1897 ('Montagu').

Hildebrand recorded more than 10,000 coins, almost all of them from Edgar's reform of c.973 onwards and about four-fifths attributable to the reigns of Æthelred II and Cnut. A very small proportion (about 2%) have since been recognised as Scandinavian or Irish imitations or genuine Danish issues.¹ Fewer than 100 are earlier than Æthelred. In contrast, *BMC* listed nearly 7,000 specimens, of which almost 4,000 were earlier and 3,000 later than Edgar's reform. Because, like Hildebrand, its composition was heavily weighted by coins derived from large hoards, the pre-reform component contained especially large numbers of some series, notably ninth-century Northumbrian 'stycas' (22%), pence of the Mercian king Burgred (6½%), coins attributed to Alfred (11½%), and the St Edmund memorial coinage of the East Anglian Danes (15%). Of the post-reform coins, more than half were of Edward the Confessor.

Finally, Montagu gave details of over 2,000 pre-Conquest coins, some 800 from before and 1,200 after Edgar's reform. Thus when the Society was formed, details of nearly 5,000 pre-reform and about 18,000 post-reform coins were available from these publications alone to collectors and scholars interested in the issues of Anglo-Saxon England and the Viking rulers of the Danelaw.

The classification devised by the compilers of *BMC* was more mechanical than perceptive. One of its weaknesses was a tendency to give principal class numbers not only to substantive issues but also to minor varieties, and even in some cases to extremely rare 'mules' between different types, thereby making it difficult to see the wood for the trees. Sale catalogues, including Montagu, gave more prominence to where a pre-reform coin or a comparable specimen was illustrated, be it in Ruding, Hawkins or *BMC*, than to its *BMC* type number. In the post-reform period Hildebrand's alphabetical nomenclature was often preferred, for apart from a failure to recognise and eliminate Danish types, particularly those minted in the names of Cnut and Harthacnut at Lund – a failure largely shared by *BMC* – it clearly gave subsidiary status to minor varieties and mules.

This, therefore, was the base from which Anglo-Saxon numismatics entered the twentieth century. In the first thirty years there was little progress in interpreting the coinage of the three centuries before Edgar's reform, though some classifications were refined. Thus A.B. Creeke reviewed the so-called sceatta and styca coinages of the kings of Northumbria and archbishops of York,² but attributed to kings Æthelred I, Eardwulf and Ælfwald II in the period 790–810 coins that subsequent research would show to be derivative issues from several decades later. Nathan

¹ H. Bertil A. Petersson, 'Coins and weights: Late Anglo-Saxon pennies and mints, c.973–1066 (Appendix Part Two: The weights of the coins in the Hildebrand collection)', *Studies in Late Anglo-Saxon Coinage [SLAC]*, *Numismatiska Meddelanden* 35, edited by Kenneth Jonsson (Stockholm, 1990), 377–423, coded 0.

² A.B. Creeke, 'The regal sceatta and styca series of Northumbria', *BNJ* 1 (1903–4), 65–96, and 'The sceatta and styca coinage of the early Archbishops of York', *BNJ* 2 (1905), 7–20.

Heywood divided the coinage of the Mercian king Burgred (852–74) into four groups based on differences in the detail of the three-line reverse design, designating them 1–4 although a similar classification, (a)–(d), had been adopted in *BMC*.³ Philip Carlyon-Britton (Pl. 2), on the other hand, put forward a reasoned argument for Offa's imitation of an Arabic gold dinar having been intended as a mancus.⁴ He also rejected C.L. Stainer's dismissal from Oxford of the 'Orsnaforda' pence in Alfred's name;⁵ in this he was supported by the historian Alfred Anscombe, a member of the Society, who advanced a strong philological case for the reading *OHSNAFORDA*, found on a few specimens, being an acceptable early equivalent of the later *Oxnaforda*.⁶ However, neither he nor Carlyon-Britton, nor even Michael Dolley (Pl. 6c) and Christopher Blunt (Pl. 4d) who supported Stainer,⁷ seems to have considered the possibility that the pence reading *OHSNAFORDA* were true coins of Oxford while those reading *ORSNAFORDA* were copies from the Danelaw.⁸

For the post-reform issues on the other hand, serious attempts were made to create definitive sequences of the types used up to the Norman Conquest, excluding those of Scandinavian origin, with Alexander Parsons tackling the period to 1042 and Carlyon-Britton the reign of Edward the Confessor. We will return to these after assessing the progress made with the pre-reform coinage, most of it after World War II under the outstanding leadership of Blunt and Dolley.

A. The coinage before Edgar's reform of c. 973

Southern England before Offa

Leaving aside exceptional productions such as the mounted 'medalet' naming Bishop Liudhard, chaplain to the Frankish princess Bertha who had married king Æthelberht of Kent, and dated by Philip Grierson c.580,⁹ the earliest coinage of southern Anglo-Saxon England consisted of small gold coins of about 1.3 grams (20 Troy grains) which were modelled on the Merovingian *tremissis* and have traditionally been called 'thrymsas' by numismatists. As time progressed these issues, mostly without meaningful inscriptions, became increasingly alloyed with silver until, before the end of the seventh century, they constituted an unashamedly silver coinage to which the name 'sceattas' has been attached.

These names are misleading to historians. Professor Philip Grierson showed in 1961 that the so-called 'thrymsas' can be equated with the shillings of the Kentish laws, comprising twenty *sceattas*, which would make a *sceat* a weight of gold equivalent to a Troy or barley grain,¹⁰ though it is debatable whether a grain of that size actually formed part of any weight system used in Anglo-Saxon England. The term *sceat* is later found in contexts which appear to value it at one-fortieth of an ounce of silver,¹¹ or about ten or twelve times its weight as a unit of gold, a difference that could point to the ratio between gold and silver at that time. The silver coins that numismatists have called 'sceattas' may therefore be twice as heavy as the units whose name they have been given. Ian Stewart has said that the continued use of this term for what are really early pennies is 'intolerable' and that to avoid confusion with the later broad pennies they could conveniently be called *denarii*,¹² but his strictures seem so far to have fallen on deaf numismatic ears. How the

³ N. Heywood, 'The kingdom and coins of Burgred', *BNJ* 3 (1906), 59–66.

⁴ P.W.P. Carlyon-Britton, 'The gold mancus of Offa, King of Mercia', *BNJ* 5 (1908), 55–72.

⁵ C.L. Stainer, *Oxford Silver Pennies from A.D. 925 – A.D. 1272* (Oxford, 1904), xxiii–xxxiv; P.W.P. Carlyon-Britton, 'The Oxford mint in the reign of Alfred', *BNJ* 2 (1905), 21–30.

⁶ A. Anscombe, 'The inscription on the Oxford pennies of the *OHSNAFORDA* type', *BNJ* 3 (1906), 67–100.

⁷ R.H.M. Dolley and C.E. Blunt, 'The chronology of the coins of Ælfred the Great', *Anglo-Saxon Coins* (London, 1961), 77–95 at p. 91.

⁸ Stewart Lyon, 'Historical problems of Anglo-Saxon coinage – (4) The Viking Age', *BNJ* 39 (1970), 193–204 at pp. 196–7.

⁹ Philip Grierson, 'The Canterbury (St Martin's) hoard of Frankish and Anglo-Saxon coin-ornaments', *BNJ* 27 (1952–4), 39–51.

¹⁰ P. Grierson, 'La Fonction sociale de la monnaie en Angleterre aux VIIe–VIIIe siècles', in *Moneta e scambi nell'alto Medioevo* (Spoleto, 1961).

¹¹ For example, in the Lindisfarne Gospels the Latin *dragmas decem* in Luke 15:8 is glossed in the late tenth century as *fif sceattas teast um*, or ten times five *sceattas*; see *BNJ* 38 (1969), p. 217. This precise reckoning implies that a *sceat* was reckoned to be one-fifth of a drachm, a traditional unit equivalent to one-eighth of an ounce.

¹² Ian Stewart, 'Anglo-Saxon gold coins', *Scripta Nummaria Romana: Essays presented to Humphrey Sutherland*, edited by R.A.G. Carson and C.M. Kraay (London, 1978), 143–72, at p. 144.

transition from gold shillings to silver pennies was managed in practice in terms of nomenclature and accounting relationships is an unanswered question.

The gold 'thrymsas', as we shall continue to call them for convenience, were the subject of a study by Humphrey Sutherland in 1948,¹³ updated by Ian Stewart (Pl. 6d) in 1978¹⁴ and subsequently by Michael Metcalf (Pl. 8d) in a three-volume study that was principally devoted to the 'sceattas' and is the essential starting point for further research into that series,¹⁵ though earlier work by P.V. Hill in the late 1940s and early 1950s¹⁶ and especially Stuart Rigold (Pl. 6b) in the 1960s and 1970s¹⁷ pointed the way. Rigold in particular made an important advance by using the evidence of finds to identify and classify the earliest 'sceattas'. Metcalf has diligently assembled and charted a steadily increasing corpus of finds, mainly by metal-detectorists, thereby enabling him to associate most of the diverse types that constitute this mostly anonymous coinage with the geographical areas in which they are likely to have been produced. Analysis of their silver content has also facilitated the ordering of their relative chronology.

The names which occasionally occur on 'sceattas' were once thought to be royal but are now considered to denote moneyers. However, in the mid-eighth century an East Anglian king called Beonna issued pence struck on slightly larger flans with his own name and title, partly in runes, on the obverse and the moneyer's on the reverse. A hoard which greatly increased our knowledge of his coinage was uncovered at Middle Harling, Norfolk, between 1981 and 1983 and written up by Marion Archibald (Pl. 8c).¹⁸ Since then a coin of his probable contemporary, Æthelberht I (749–?), has been found in excavations at Burrow Hill, Suffolk.¹⁹ The remarkable penny of Æthelberht II (killed by Offa in 794) which copies the wolf-and-twins reverse of the Constantinian *Urbs Roma* issue had been discussed by Carlyon-Britton many years earlier.²⁰

Southern England – Offa

The coinage of Offa has always been highly prized by collectors because of its artistic quality, but because the surviving material comes from single finds and, very likely, at least one hoard unfortunately found too early to have been recorded for posterity, little attempt to interpret it was made before Christopher Blunt's fundamental and detailed study in the numismatic *festschrift* for the historian Sir Frank Stenton on the occasion of his eightieth birthday in 1960.²¹ Blunt divided the coinage into a light issue, on flans that were small but somewhat larger than those used by Beonna, and a heavier group from late in the reign, struck on larger flans, reflecting changes in the coinage of Charlemagne a year or two earlier. A coinage struck for Offa in East Anglia was identified, but it was clear that the coins of greatest artistic merit, both with and without a portrait, represented the work of an engraver or engravers in the south-east during the light issue.

In 1986 Ian Stewart set out epigraphic criteria for distinguishing between coins from Kent and those from London;²² then in 1997 came a second wide-ranging review, in which Derek Chick reported progress towards developing a chronology for Offa's coinage.²³ As he says, 'the duration of the light coinage, its internal dating and chronology and its likely date of inauguration, particularly in relation to the issues of Heahberht and Egbert II of Kent have been an enduring enigma'.²⁴

¹³ C.H.V. Sutherland, *Anglo-Saxon Gold Coinage in the light of the Crondall Hoard* (Oxford, 1948).

¹⁴ Stewart, 'Anglo-Saxon gold coins' (see note 12).

¹⁵ D.M. Metcalf, *Thrymsas and Sceattas in the Ashmolean Museum Oxford*, Volumes I–III (London, 1993–4).

¹⁶ In *BNJ* 26 (1949–51), 129–54, 251–79; and *BNJ* 27 (1952–4), 1–38.

¹⁷ S.E. Rigold, 'The two primary series of sceattas', *BNJ* 30 (1960–1), 6–53 and *BNJ* 35 (1966), 1–6; also 'The principal series of English sceattas', *BNJ* 47 (1977), 21–30.

¹⁸ M.M. Archibald, 'The coinage of Beonna in the light of the Middle Harling hoard', *BNJ* 55 (1985), 10–54.

¹⁹ M.M. Archibald and V. Fenwick with M.R. Cowell, 'A sceat of Ethelbert I of East Anglia and recent finds of coins of Beonna', *BNJ* 65 (1995), 1–19.

²⁰ P.W.P. Carlyon-Britton, 'A penny of St Æthelberht, King of East Anglia', *BNJ* 5 (1908), 73–84.

²¹ C.E. Blunt, 'The Coinage of Offa', *Anglo-Saxon Coins*, edited by R.H.M. Dolley, (London, 1961), 39–62.

²² Ian Stewart, 'The London mint and the coinage of Offa', *Anglo-Saxon Monetary History [ASMH]*, edited by M.A.S. Blackburn (Leicester, 1986), 27–43.

²³ Derek Chick, 'Towards a chronology for Offa's coinage: An interim study', *The Yorkshire Numismatist* 3 (1997), 47–64.

²⁴ Chick, as in n. 23, p. 48.

There is no doubt that its resolution is needed to establish when the 'sceatta' coinage was finally swept away and by whom.

Chick's proposal is that the Mercian broad penny coinage probably began with a monogram type at London c. 760–765, quickly followed by the earliest of Offa's East Anglian issues by the moneyer Wilred (who had previously coined for Beonna). Canterbury may have minted the monogram type for Offa before the battle of Otford (776), perhaps preceded by Heahberht of Kent and followed, after the battle, by Egbert with a parallel issue by Archbishop Jænberht (on this occasion styled *pontifex*, not *archiepiscopus*). Then in the late 770s Offa introduced at London the splendid portrait and non-portrait coinage for which he is renowned and which soon involved the Canterbury mint, with coins also struck there in the name of Offa's queen, Cynethryth, and in the joint names of Offa and the archbishop – an ecclesiastical association repeated briefly at London with Bishop Eadberht.²⁵

This scheme is ingenious but attributes to the 760s a coinage that has survived in much smaller numbers than would have been expected had a major re-coinage of the southern 'sceattas' been necessary at that time. Chick's promised comprehensive study is keenly awaited.

Southern England – Mercian decline and fall, 796–879

The coinage of southern England after the death of Offa until the disappearance from history of the last Mercian king, Ceolwulf II, in 879 has been the subject of several major studies that have so far stood the test of time. Blunt, Lyon and Stewart brought together their research on aspects of the coinage of the first forty-five years in a paper published in the *Journal* for 1963.²⁶ Reinforcing the few mint-signed coins with a stylistic die-study, they allocated the moneyers active between 796 and 825 between Canterbury, Rochester, London and East Anglia. In the process they showed that Ceolwulf I (821–823) was the last Mercian king to be recognised on pence minted in Kent, while his successors Beornwulf and Ludica maintained a hold on East Anglian minting for a further four years. There was a period of uncertainty at Canterbury during Ceolwulf's reign when both the royal and archiepiscopal moneyers issued coins without the name of king or archbishop, as though they were unsure whose authority they should be acknowledging. The historian Nicholas Brooks would prefer the anonymous coinage to have taken place during the last years of the reign of Ceolwulf's predecessor Coenwulf, when archbishop Wulfred was suspended from office, and to have ceased by September 822, when Ceolwulf was belatedly consecrated king, apparently by the archbishop.²⁷ However, the typological numismatic evidence suggests that the two royal moneyers of Canterbury (out of a complement of six) who are known to have struck coins in Ceolwulf's name may have done so both before and after they participated with the others in the anonymous coinage, in which case the latter cannot have begun under Coenwulf. After Ceolwulf the coins tell us that Kent was ruled by a king called Baldred, presumably with Mercian approval since there is no evidence that Beornwulf, who seems to have worked closely with Archbishop Wulfred, tried to oust him.²⁸ The Canterbury and Rochester moneyers evidently had no compunction about minting in his name, nor subsequently for Egbert of Wessex who conquered Kent after defeating Beornwulf in 825; what happened to Baldred is not recorded.

Egbert's coinage had already been the subject of an important paper by Blunt.²⁹ He had endorsed G.C. Brooke's identification of a group of moneyers operating in Wessex, apparently at Winchester; his later study with Lyon and Stewart enabled another group to be identified as royal moneyers of Rochester, thus complementing a known ecclesiastical issue in the name of St Andrew, to whom the cathedral there was dedicated. Egbert also occupied London for a short time in 829 and interrupted the ephemeral coinage there of the Mercian king Wiglaf's only known moneyer.

²⁵ Chick, as in n. 23, p. 57.

²⁶ C.E. Blunt, C.S.S. Lyon and B.H.J.H. Stewart, 'The coinage of Southern England, 796–840', *BNJ* 32 (1963), 1–75.

²⁷ Nicholas Brooks, *The Early History of the Church of Canterbury* (Leicester, 1984), p.135.

²⁸ Brooks, as in n. 27, p. 136.

²⁹ C.E. Blunt, 'The coinage of Ecgbeorht, King of Wessex, 802–39', *BNJ* 28 (1955–7), 467–76.

The coinage of Egbert's successor as king of the West Saxons, Æthelwulf, was studied by R.H.M. Dolley and K. Skaare in the Stenton *festchrift* volume.³⁰ They showed that two *officinae* were responsible for the then known coins of the reign apart from a unique penny by one of Egbert's 'Winchester' moneyers. These *officinae* were identified by the present writer³¹ as continuations of the Canterbury and Rochester mints of previous rulers. Dolley and Skaare had pointed out that a unified type was introduced in the final years of the reign for the king's two *officinae* and adopted also by Archbishop Ceolnoth, and that the die-cutting became centralised at one of them. It could now be seen that the two *officinae* began by using separate engravers for this (*Open Cross*) type as in previous issues before Canterbury took responsibility for them both.

After Æthelwulf's death in 858 the *Open Cross* type was continued in Kent by his successor there, his son Æthelberht. Whether it was also minted by the latter's elder brother Æthelbald, who had earlier seized control of Wessex, is not known, for no coins of Æthelbald have survived. During his own reign Æthelberht replaced the *Open Cross* type with a new one we call *Floreate Cross*, pence of which have survived in very small quantities. It seems that this type did not extend beyond Æthelberht's death in 866, for the coins of his successor and younger brother, Æthelred I, all show the moneyer's name in one of two horizontal patterns, the commonest of which had been in use in Mercia since 852 (*Lunettes*).

The Mercian king Wiglaf had been succeeded by Berhtwulf in 840 and his coinage has recently been studied in depth by James Booth.³² He concludes that the revival of Mercian coinage took place in London using dies that had been cut for Berhtwulf by Æthelwulf's Rochester engraver, perhaps facilitated by the temporary transfer to London of one of the Rochester moneyers (Brid). Subsequently local engravers took over. Reverse designs were not standardised, but when Burgred succeeded Berhtwulf in 852, probably at much the same time as Æthelwulf introduced the *Open Cross* type, the Mercian mint or mints adopted the so-called *Lunettes* type to which reference has already been made. Burgred's coinage was studied by Hugh Pagan as long ago as 1965³³ and commented on by the present writer³⁴ and again by Pagan in an important review of the southern coinage of 796–874 (the year of Burgred's deposition).³⁵ Alfred took over the *Lunettes* model when he succeeded his brother Æthelred in 871 and continued with it for a short time after Burgred's removal from the Mercian scene, by which point the coins had become heavily debased.

An interesting question is whether the standardised issues from *Open Cross* onwards, particularly those of the West Saxon kings, were intended as *renovatio* coinages, having a limited lifetime before being demonetised. Michael Dolley argued that they were,³⁶ and underlined his point by referring to hoards that contained few coins of West Saxon kings before Æthelred but a run of East Anglian pence extending back to the 830s. (Presumably these would only have been valued as bullion in territory which came within a *renovatio* economy.) The last significant coinage that may have come within such a system before Edgar's reform of c. 973 is the *Cross and Lozenge* issue of Alfred, Ceolwulf II of Mercia and Archbishop Æthelred of Canterbury, which has recently been the subject of a definitive study by Mark Blackburn and (Professor) Simon Keynes.³⁷ Being of fine silver, it would in any case have been essential to call in such a base coinage as the later *Lunettes* pennies. Not long after Ceolwulf's unrecorded demise Alfred must have decided to abandon a system of successive portrait issues that had been in operation for more than twenty-five

³⁰ R.H.M. Dolley and K. Skaare, 'The Coinage of Æthelwulf, King of the West Saxons, 839–58', *Anglo-Saxon Coins* (see note 21), pp. 63–76.

³¹ Stewart Lyon, 'Historical problems of Anglo-Saxon coinage – (2) The ninth century, Offa to Alfred', *BNJ* 37 (1968), 216–83 at p. 226.

³² James Booth, 'Monetary alliance or technical co-operation? The coinage of Berhtwulf of Mercia (840–852)', *Kings, Currency and Alliances*, edited by M.A.S. Blackburn and D.N. Dumville (Woodbridge, 1998), pp. 63–104.

³³ H.E. Pagan, 'Coinage in the age of Burgred', *BNJ* 34 (1965), 11–27.

³⁴ Lyon, 'Historical Problems – (2)' (see note 31), 230–4.

³⁵ Hugh Pagan, 'Coinage in southern England, 796–874', *ASMH* (see note 22), pp. 45–65.

³⁶ Michael Dolley, 'Ælfred the Great's abandonment of the concept of periodic recoinage', *Studies in Numismatic Method presented to Philip Grierson*, edited by C.N.L. Brooke, B.H.I.H. Stewart, J.G. Pollard and T.R. Volk (Cambridge, 1983), pp. 153–60.

³⁷ Mark Blackburn and Simon Keynes, 'A corpus of the Cross-and-Lozenge and related coinages of Alfred, Ceolwulf II and Archbishop Æthelred', *Kings, Currency and Alliances* (see note 32), pp. 125–50.

years, in favour of a utilitarian coinage with a circled small cross on the obverse and the moneyer's name, horizontally but without lunettes, on the reverse. Dolley viewed this as a wise decision by Alfred that would facilitate trade across the newly-established boundary between his territory and the Danelaw and make it easier for his Danish neighbours to strike English-looking coins.³⁸

East Anglia, c. 827–c. 870

When the Mercians lost control of East Anglia c. 827, the moneyers who had previously minted for the Mercian kings now produced a coinage for a king Athelstan who is otherwise unknown to history. He was evidently succeeded by another unknown king, Æthelweard, probably early in the 840s, who was followed in 855 by the historical Edmund. After the Danes killed him in 869 they may have installed client kings, for a very few specimens exist of coins naming either an Oswald or an Æthelred which have East Anglian attributes.³⁹ The coinage up to the death of Edmund was the subject of a definitive study twenty years ago by Hugh Pagan,⁴⁰ the first since Daniel Henry Haigh in 1845.

Northumbria to 867

Northumbria is responsible for some very early royal 'sceattas' in the name of king Aldfrith (685–704) featuring an animal on the reverse, now believed by Dr Anna Gannon of the British Museum to be a lion. After a lapse of time a similar but neater coinage was introduced on quite an extensive scale by Eadberht (737–58), who also produced an issue jointly with his brother, Archbishop Egbert of York, on which the animal was replaced by the standing figure of the archbishop. Much rarer coins with the animal are known for Alchred (765–74), Æthelred I (probably from his first reign, 774–9) and Ælfwald I (779–88), and there were joint issues with Archbishop Egbert (who died in 766) by Æthelwald Moll (759–65) and Alchred. The series attracted attention in the Society's early years, but has been studied in detail in modern times by James Booth,⁴¹ with an important postscript by Lord Stewardby.⁴²

With the small 'sceatta' flan still retained, the animal reverse gave way in due course to a moneyer's name, possibly under Ælfwald I if the relevant coins were not struck for another Ælfwald c. 808–10, though the flowering of the new issue seems to be attributable to Æthelred's second reign (789–96). It is possible that the Eanbald named on some of Æthelred's coins is the archbishop of that name who died in 796, but the consensus seems to be that a moneyer of the same name is intended. This series was also published in detail by Booth, after which were discovered the first two coins correctly attributable to Eardwulf (796–808, possibly restored briefly in 810).⁴³

Thereafter the Northumbrian coinage becomes progressively more debased until the silver content virtually disappears. These so-called 'stycas', which run through from c. 810 to the fall of York to the Vikings in 867, have survived in large quantities, and after detailed studies by the present writer in the mid-1950s and Hugh Pagan in 1969,⁴⁴ a complete die-analysis of the thousands in Yorkshire public collections was undertaken by Elizabeth Pirie and published in 1996.⁴⁵ It is a remarkable technical achievement but her interpretation of the material is controversial: her

³⁸ Dolley, 'Ælfred's abandonment' (see note 36) at p. 157.

³⁹ North 480, 480/1, 487–8.

⁴⁰ H.E. Pagan, 'The coinage of the East Anglian kingdom from 825 to 870', *BNJ* 52 (1982), 41–83.

⁴¹ James Booth, 'Sceattas in Northumbria', *Sceattas in England and on the Continent*, edited by D. Hill and D.M. Metcalf, BAR British Series 128 (1984), pp. 71–111.

⁴² Lord Stewardby, 'A second coin of King Ethelwald and Archbishop Ecgberht', *Chris Rudd List* 42 (1999), 2–3.

⁴³ James Booth, 'Coinage and Northumbrian history: c. 790–c. 810', *Coinage in Ninth-Century Northumbria*, edited by D.M. Metcalf, BAR British Series 180 (1987), 57–89; E.J.E. Pirie, 'A significant addition to the coinage of Northumbria', *BNJ* 65 (1995), 20–31; M. Blackburn and A. Gillis, 'A second coin of King Eardwulf of Northumbria and the attribution of the moneyer coins of King Ælfwald', *BNJ* 67 (1997), 97–9.

⁴⁴ C.S.S. Lyon, 'A reappraisal of the sceatta and stycas coinage of Northumbria', *BNJ* 28 (1955–7), 227–42; H.E. Pagan, 'Northumbrian numismatic chronology in the ninth century', *BNJ* 38 (1969), 1–15.

⁴⁵ E.J.E. Pirie, *Coins of the Kingdom of Northumbria c. 700–867* (Llanfyllin, 1996).

introduction should be read in conjunction with the papers given to a symposium in Oxford a decade previously.⁴⁶

Alfred to Edgar, c. 880–c. 973

Probably soon after 880, Alfred introduced the non-portrait coinage of pennies (and, for the first time, round halfpennies) with the moneyer's name in horizontal lines that was to be the staple design of the Anglo-Saxon coinage until Edgar's reform of c. 973. Minting can be deduced to have spread in Alfred's reign to towns in the north-west such as Chester and Shrewsbury, while Bath, Gloucester, Oxford, Winchester and Exeter are all named on coins of special types that are admittedly very rare. There was also a special portrait issue at London, with a monogram of LVNDO-NIA on the reverse, occasionally supplemented by a moneyer's name. It used to be assumed that this issue marked Alfred's reoccupation of the walled city in 886, but the connection has been challenged, most recently by Mark Blackburn, supported on historical grounds by the historian Simon Keynes.⁴⁷ It may be no coincidence that this issue appears to be contemporary with the unique portrait penny of Gloucester, for they may be designed to proclaim, in the aftermath of the demise of Ceolwulf, that Alfred's royal power (he is ÆLFRED REX at London, simply ÆLFRED at Gloucester, with no territorial limitation such as the SAXONIORVM which is sometimes found, abbreviated, in the *Cross and Lozenge* issue) now extended to the Mercians' two most prestigious cities.

Before we leave Alfred, two papers by Dolley and Blunt should be mentioned that laid the groundwork for a study of the whole of his coinage.⁴⁸ Although in some respects their conclusions are outdated as a consequence of later work, they had a profound influence on how Alfred's coinage was perceived.

The coinage of the period from the death of Alfred in 899 to Edgar's reform was extensively analysed in Blunt's last major work, *Coinage in Tenth-Century England*, written in conjunction with Stewart and Lyon but not published until 1989, although Blunt, who died in 1987, was able to mark up the printer's copy of the proofs of the whole book.⁴⁹ For a few years after c.928 all coins struck outside the central Danelaw were mint-signed, as can be seen from two essential companion volumes: Blunt's seminal study of the coinage of Alfred's grandson, Athelstan⁵⁰ and the *Sylloge* volume covering the British Museum's coins from Athelstan to the reform of Edgar.⁵¹

Viking coinages, c. 880–954

There were two periods of Viking coinage in England, the first from soon after the division of the country along the line of Watling Street by the treaty between Alfred and Guthrum until Athelstan's completion in 927 of the recovery of the Danelaw, and the second from Athelstan's death in 939 until the expulsion of Eric Bloodaxe from York in 954. The first period brought forth at York the first silver coinage ever produced there on broad flans; it consisted of pennies and round halfpennies in the names of local rulers c. 895–905 and was discussed more than forty years ago by Lyon and Stewart.⁵² It was followed at York by issues in the name of St Peter, at first without Viking ornamentation but later, in the 920s, depicting a sword and a mallet or Thor's hammer.

⁴⁶ *Coinage in Ninth-Century Northumbria* (see note 43).

⁴⁷ Mark Blackburn, 'The London mint in the reign of Alfred', *Kings, Currency and Alliances* (see note 32), pp. 105–23, and in the same volume, Simon Keynes, 'King Alfred and the Mercians', pp. 1–45.

⁴⁸ C.E. Blunt and R.H.M. Dolley, 'The hoard evidence for the coins of Alfred', *BNJ* 29 (1958–9), 220–47; R.H.M. Dolley and C.E. Blunt, 'The chronology of the coins of Ælfred the Great 871–99', *Anglo-Saxon Coins* (see note 21), 77–95.

⁴⁹ C.E. Blunt, B.H.I.H. Stewart and C.S.S. Lyon, *Coinage in Tenth-Century England from Edward the Elder to Edgar's Reform* (Oxford, for The British Academy, 1989).

⁵⁰ C.E. Blunt, 'The Coinage of Athelstan, 924–939', *BNJ* 42 (special vol., 1974).

⁵¹ *SCBI* 34, *British Museum: Anglo-Saxon Coins V: Athelstan to the Reform of Edgar 924–c.973*, by Marion M. Archibald and C.E. Blunt (London, 1986).

⁵² C.S.S. Lyon and B.H.I.H. Stewart, 'The Northumbrian Viking Coins in the Cuerdale Hoard', *Anglo-Saxon Coins* (see note 21), 96–121.

Between these two St Peter issues there was a brief coinage attributable to Regnald I (c. 919–21), a Norse ruler from Dublin. The sword St Peter issue corresponds with the rule of Sihtric Caech (c. 921–7), whose name is only found on sword coins with reverse minting inscriptions that mark them as from the area south of the Humber, in particular Lincoln. For a discussion of these post-Cuerdale issues and references to previous work, see *Coinage in Tenth-Century England*, Chapter 4.

The first period also saw the introduction, soon after the treaty, of a coinage in Guthrum's baptismal name of Athelstan, modelled on that of his sponsor. Since Guthrum died in 890 his coins are essentially of the 880s. They were in a minority in a hoard mainly consisting of Danelaw copies of Alfred's coinage, found at Ashdon, north Essex, in 1984. The hoard also provided the first known coin – a fragment, unfortunately, as were many of the others in the hoard – to name a ruler who appears to be the Northumbrian king Guthfrith (c. 883–895) though only the letters **x GV DE F...E** have survived.⁵³ The hoard contained no specimens of the prolific East Anglian coinage invoking the martyred and canonised Edmund, which is therefore unlikely to have begun during Guthrum's lifetime. The St Edmund coinage, which was heavily represented in the Cuerdale hoard and continued until late in the reign of Edward the Elder, is ripe for a study in depth, though Blunt gave a general survey in 1969.⁵⁴ It may have been followed by the illiterate imitations of Edward's final issues, especially the portrait type from London, that formed the heavily die-linked bulk of a hoard found at Morley St Peter, near Norwich, in 1958.⁵⁵

Mention has already been made of the Danelaw imitations of Alfred's Oxford (*Ohnsaforda*) pence in the corrupt form *Orsnaforda*.⁵⁶ None were found at Ashdon, and the stylistic resemblance with early coins of Edward the Elder by the same moneyer, Bernwald, suggests that the prototypes should be dated late in Alfred's reign,⁵⁷ though conflicting evidence for a date nearer 880 seems to be provided by an ill-recorded hoard from Lower Thames Street, London.⁵⁸

The second period of Viking coinage can itself be divided in two. Anlaf (*Óláfr*) Guthfrithsson came from Dublin on receiving the news of Athelstan's death in October 939 and seized York and the Five Boroughs south of the Humber, as his coins bear witness. He died in 941 and was succeeded by another Dubliner, Anlaf (*Óláfr*) Sihtricsson, from whom Edmund retrieved the Five Boroughs in 942. This Anlaf and his cousin Regnald Guthfrithsson, together (presumably) with an unknown Sihtric who issued coins in concert with the other two, were expelled in 944 and York reverted temporarily to English rule. Eric (*Eiríkr*) Haraldsson of Norway, known as Bloodaxe, recovered York for the Vikings from Eadred in 947–8, was then driven out but Anlaf returned from 949–52, only to be replaced by Eric until the latter was killed two years later.

The coinage of the second period has not proved easy to distinguish from the later issues of the first period, let alone to determine its relative chronology, not least because of the difficulty of separating and allocating the different Sihtrics, Anlafs and Regnalds when the coins of all are scarce. The problem was discussed but not solved by Derek Allen in the 1930s,⁵⁹ but Michael Dolley came closer in 1958.⁶⁰ An exposition of the present position, with references to recent work, is to be found in Chapter 14 of *Coinage in Tenth-Century England*.

B. The sequence of coin types after the reform of c. 973

Close to the end of Edgar's reign, arguably as late as 973, the regionally diverse coinage in circulation was swept away and replaced by a unified type bearing on the obverse a circled bust of the king facing left and on the reverse a circled small cross. For the first time every coin, wherever in

⁵³ M.A.S. Blackburn, 'The Ashdon (Essex) hoard and the currency of the southern Danelaw in the late ninth century', *BNJ* 59 (1989), 13–38.

⁵⁴ C.E. Blunt, 'The St Edmund memorial coinage', *Proc. of the Suffolk Inst. of Arch.* 31 (1969), 234–53.

⁵⁵ *SCBI* 26 (Museums in East Anglia), 1–45 and plates I–XXII.

⁵⁶ See above, p. 000.

⁵⁷ Lyon, 'Historical problems of Anglo-Saxon coinage – (4)' (see note 8), 196–7.

⁵⁸ Blackburn, 'The London mint' (see note 47), p. 110, n. 19 and pp. 120–1, n. 49.

⁵⁹ Derek Allen, 'Northumbrian pennies of the tenth century', *BNJ* 22 (1934–7), 175–86.

⁶⁰ R.H.M. Dolley, 'The post-Brunanburh Viking coinage of York', *NNA* 1957–8, 13–88.

the kingdom it was minted, would bear the name not only of the moneyer but also the town where he worked or with which he was associated. From Æthelred onwards new obverse and reverse designs were introduced periodically, but in 1903 their purpose and the organisation they involved were yet to be explored. Before this could happen agreement was needed on their sequence, the starting point being Bror Emil Hildebrand's classification in the first (1846) edition of his catalogue, based on his study of the growing number of Swedish Viking-age hoards.

Edward the Confessor

The first attempt at a new chronology was for the coinage of Edward the Confessor and was proposed by Carlyon-Britton, not in the *Journal* but in the *Numismatic Chronicle* for 1905.⁶¹ He divided the coinage into eleven types, of which the first was really only a short-lived continuation at some mints of his predecessor Harthacnut's *Arm & Sceptre* issue. As well as numbering them, he for the first time gave them descriptive names, most of which are still used today in their original form or with minor modification. He justified the order of the types by a consideration of mules between them, and in only one respect did that logic lead him astray: he placed the *Pacx* type fourth of the substantive issues after *Radiate/Small Cross*, *Trefoil-Quadrilateral* and *Small Flan* when, as we shall see, later scholarship has shown it to be the first. There are two reasons why he did so. First, he mistakenly identified one mule as combining a reverse of the *Radiate/Small Cross* type with an *Arm & Sceptre* obverse in Edward's name, when in fact the portrait depicts no arm and belongs to the *Pacx* issue; secondly, he thought he had identified mules between *Pacx* obverses and *Expanding Cross* reverses of the York mint, when it is now recognised that there was a local engraver at York in the latter issue who depicted the king's portrait in the style of issues of the late 1030s and early 1040s including *Pacx*.⁶² As a result, Carlyon-Britton suggested Michaelmas 1051 as the date for the introduction of the *Pacx* type, giving three years to each of the three other substantive issues prior to *Expanding Cross* and two years each to *Pacx*, *Expanding Cross* and the five subsequent types.

Æthelred II

Attention was next focused on the types of Æthelred II. Hildebrand had designated them with upper-case letters of the alphabet, starting with Type A. Following the type letter, a numeral indicated a major division of the type, while a lower-case letter denoted a limited variety. To make it easier to discuss how the debate developed, Table 1 relates the Hildebrand designations, ignoring varieties, to those in *BMC* and the corresponding terms generally used today.

TABLE 1

<i>Reign</i>	<i>Hildebrand</i>	<i>BMC</i>	<i>Modern</i>
Edward the Martyr	A	i	Normal Small Cross
	B	ii	(Not recognised)
Æthelred II	A	i	First / Intermediate / Last Small Cross
	B1	iiia	First Hand
	B2	iiid	Second Hand
	B3	iiif	Benediction Hand
	C	iiia	Crux
	D	iva	Long Cross
	E	viii	Helmet
	F	ix	(Danish issue)
	G	x	Agnus Dei

⁶¹ P.W.P. Carlyon-Britton, 'Edward the Confessor and his coins', *NC* 1905, 179–205.

⁶² Peter Seaby, 'The sequence of Anglo-Saxon coin types, 1030–50', *BNJ* 28 (1955–7), 111–46, at p. 118.

With the exception of Type F, which has long been acknowledged to be Danish, Hildebrand's sequence of Æthelred's types remains valid provided credit is given for his observation that Type A is not a single issue. On the other hand the *BMC* designations are unhelpful, with many whole numbers missing from the table because they were assigned to varieties or mules, leaving some main types with alphabetical suffixes.

Type A was the cause of a clash in the pages of *NC* for 1910 between research-minded collector, Alexander Parsons, and young British Museum curator, George Brooke.⁶³ Parsons contended that Hildebrand's order was wrong and in particular that Type A was Æthelred's last type, not his first. The sequence he proposed was in fact B, C, E, D, A, with the excessively rare G (a medal in his opinion, not a coin) connected in time with A by virtue of a mule with obverse G and reverse A. An important part of his reasoning was that Type A was the only one in which the copulative between moneyer's name and that of his town was predominantly shown as ON as distinct from the traditional M-O or an intermediate form such as MoN or MON, and that ON became almost universal by the middle of Cnut's reign. His argument for putting E before D was similar but very much weaker.

Brooke penned a severely critical response, which in respect of some purely speculative arguments was well justified. On the fundamental question of the positioning of Type A, he pointed out that Hildebrand had not stated that Type A came first but that it was used throughout the reign in conjunction with the later types, a conclusion which he (Brooke) interpreted as meaning that because of its ease of engraving it was recalled into use when tributes had to be raised urgently.⁶⁴ He also used the copulatives on the coins in the British Museum to dismiss Parsons' reversal of Types D and E (although, curiously, he subsequently adopted it in *English Coins*) and he rejected the idea that the *Agnus Dei* pieces (Type G) were medals. Parsons replied apologetically that in the absence of a translation from the Swedish he had not appreciated Hildebrand's view of Type A, but he again argued cogently that Type A was a late issue.⁶⁵

There was another reason why Parsons had not believed Type A to be early, namely the apparent introduction of Type B (*Hand*) by Edward the Martyr on the strength of a unique coin of Canterbury with a pedigree going back to Cuff. Bought for the British Museum at the Montagu sale (lot 751), this coin came to be recognised as an altered penny of Æthelred. The original inscription is visible beneath the alteration,⁶⁶ though neither this fact nor the consequent reattribution appears to have been published. Sir Charles Oman, in 1931 (*The Coinage of England*), still counted the piece for Edward the Martyr; Brooke, the next year (*English Coins*), did not. It would not be surprising if the alteration was the work of the notorious John White.

The Chester hoard of 1914⁶⁷ established beyond doubt that even if most *Small Cross* coins were late, there must also have been an issue at the beginning of the reign, so William C. Wells was able to write a decade later that 'no satisfactory suggestion has yet been put forward to enable us to correctly allocate, with any degree of certainty, the sequence of the various types'.⁶⁸ It was not until Michael Dolley undertook a detailed examination of the Swedish material in the 1950s that the true nature of Type A became apparent. Dolley showed that it was not issued intermittently and certainly not in parallel with other issues. There was a small issue at the beginning of the reign, continuing for a short period the *Reform Small Cross* type of Edgar which had been maintained by Edward the Martyr. An attempt to resurrect the type more than fifteen years later as a successor to the *Crux* type was quickly aborted and the obverse dies used up with *Crux* reverses, but not before a few of the smaller mints had released some pennies of what we now call *Intermediate Small Cross*. To the remainder of Type A – the overwhelming majority of its extant

⁶³ *NC* 1910, H. Alexander Parsons, 'The coin-types of Æthelred II', 251–90; George C. Brooke, 'Mr Parsons' arrangement of the coin-types of Æthelred II. A criticism', 370–80; H. Alexander Parsons, 'Mr G.C. Brooke on "The coin-types of Æthelred II." A reply', 381–7.

⁶⁴ Brooke, as in n. 63, p. 371.

⁶⁵ Parsons, 'Mr G.C. Brooke' (see note 63), 380–1.

⁶⁶ I am grateful to Dr Anna Gannon for this information.

⁶⁷ G.F. Hill, 'A find of coins of Eadgar, Eadward II, and Æthelred II at Chester', *NC* 1920, 141–65.

⁶⁸ William C. Wells, 'A hoard of coins of Æthelred II found in Ireland', *BNJ* 17 (1923–4), 51–9, at p. 51.

coins – Dolley gave the name *Last Small Cross*, for it does indeed represent the final issue of the reign.⁶⁹

Parsons' use of the copulative ON to justify the lateness of [most] coins of Type A was sound, as was his observation that this form of the copulative was 'very tardily adopted by towns in the North'.⁷⁰ He challenged the view that the dies at this time were as a general rule made at one centre, thought to be London, and argued from his work on the sequence of types that Winchester initiated the changes in designs and inscriptions, at least in the latter part of Æthelred's reign. 'It appears probable', he wrote, 'that England was divided into what may be called "die-sinking areas", in the chief towns of which the dies for the surrounding mint boroughs were cut.' Brooke curtly dismissed Parsons's argument as 'faulty in ascribing local peculiarities [of inscription] to the engraver of the die instead of to the moneyer who was sent to London to have his dies engraved' (here citing the practice recorded in Domesday Book).⁷¹ Parsons, however, would later be proved right by the stylistic analysis of die-cutting undertaken by Dolley.

Parsons also followed Carlyon-Britton in giving descriptive names to the types he was discussing. Apart from the modern subdividing of the *Small Cross* and *Hand* types, his names are still in use today with the exception of *Quadrilateral*, now known as *Helmet* after the obverse portrait. Brooke never adopted these descriptions nor coined others, notwithstanding that his pioneering *British Museum Catalogue of the Coins of the Norman Kings*, published in 1916, gave such names to the post-Conquest issues. Even the sale catalogues of the famous collection of R.C. Lockett between 1955 and 1960 continued to avoid them in the Anglo-Saxon series. In the end it was Dolley who adopted Parsons's nomenclature, with the modifications already mentioned, though he seems not to have acknowledged his indebtedness.

Cnut, Harold I and Harthacnut

Eventually, in the *Journal* for 1927–8, Parsons tackled the reign of Cnut, having previously written on Harthacnut (1915) and Harold I (1919–20).⁷² For Cnut he dismissed as Continental (i.e. Scandinavian) two Hildebrand types (C and D) and eight varieties of other types; this also removed seven of the twenty types into which *BMC* had divided coins in the name of Cnut and two *BMC* varieties of other types. He retained as English a small number of coins of Types A and B (corresponding to Æthelred's *Small* and *Long Cross* types respectively), which he regarded as an emergency issue arising out of the troubles and confusion at the beginning of the reign, although modern scholarship would reject them all, except possibly one or two specimens of Type A.⁷³ In his article on Harthacnut he similarly, and rightly, took the knife to most of the Hildebrand and *BMC* types.

For some reason Parsons did not give descriptive names to Cnut's substantive issues, the first of which he rightly regarded as Hildebrand Type E (*BMC* viii) (modern *Quatrefoil*). There followed Type G (*BMC* xiv) (*Pointed Helmet*) and Type H (*BMC* xvi) (*Short Cross*). It was after this that Parsons went astray. He had concluded from a comparison of the *Short Cross* type with coins minted for Cnut at Sigtuna in Sweden that it would have been introduced by 1026 and have run its course by c.1030,⁷⁴ at which point it would have been replaced by Type I (*BMC* xvii) (*Arm & Sceptre*), at first briefly coupled with reverses reading PACX. In its turn, *Arm & Sceptre* would have given way to Type K (*BMC* xx) (*Jewel Cross*) shortly before Cnut's death.

In arriving at this arrangement, Parsons had to override the evidence of a *Short Cross/Jewel Cross* mule⁷⁵ that *Short Cross* was most likely to have been followed by *Jewel Cross*, not *Arm &*

⁶⁹ R.H.M. Dolley, 'Some Reflections on Hildebrand Type A of Æthelræd II', *Antikvariskt Arkiv* 9 (Stockholm, 1958), 1–41.

⁷⁰ Parsons, 'The coin-types' (see note 63), p. 266.

⁷¹ Brooke, as in n. 63, pp. 373–4. Dolley had to overcome similar objections from historians of his day.

⁷² H.A. Parsons, 'The Anglian coins of Cnut the Great', *BNJ* 19 (1927–8), 25–67; 'The coins of Harold I', *BNJ* 15 (1919–20), 1–48; 'The Anglo-Saxon coins of Harthacnut', *BNJ* 11 (1915), 21–55.

⁷³ C.S.S. Lyon, G. van der Meer and R.H.M. Dolley, 'Some Scandinavian coins in the names of Æthelræd, Cnut, and Harthacnut attributed by Hildebrand to English mints', *BNJ* 30 (1960–1), 235–51, at p. 239; Stewart Lyon, 'Die-cutting styles in the *Last Small Cross* issue of c.1009–1017 and some problematic East Anglian dies and die-links', *BNJ* 68 (1998), 21–41, at pp. 33–7.

⁷⁴ Parsons, 'The Anglian coins of Cnut' (see note 72), p. 64.

Sceptre. Because *Jewel Cross* was struck in the names of Cnut, Harthacnut and Harold he believed that it spanned the death of Cnut but that there were insufficient coins in Cnut's name for it to have been in issue as early as c.1030, hence the need for another type to fill the gap. It does not seem to have occurred to him that the *Arm & Sceptre* type of Cnut and the identical type of Harthacnut, which continued briefly into the reign of Edward the Confessor, could both be part of the same issue and belong to the sole reign of Harthacnut (1040–2), with the die engravers being permitted to shorten the name Harthacnut to Cnut (a situation that would also imply that the *Jewel Cross* type need not have begun in Cnut's lifetime). Parsons might have been deterred by Carlyon-Britton's arrangement of the coinage of Edward the Confessor, for with the latter's *Pacx* type being placed as the fourth substantive issue it would not have seemed at all likely that the coins in Cnut's name with *Arm & Sceptre* obverse and *PACX* reverse were mules spanning the transition from Harthacnut to Edward.

Not only did Parsons split the *Arm & Sceptre* issue into two parts, separated by at least five years, he also divided the *Jewel Cross* type so that coins in the name of Harthacnut with a right-facing bust were placed in his second regnal period, after Harold I's *Fleur-de-Lys* type but before the second phase of *Arm & Sceptre*.⁷⁶ However, after Dolley had shown that *Jewel Cross* was a single issue of c. 1035–7,⁷⁷ Peter Seaby re-examined the sequence of coin types up to 1050.⁷⁸ Brooke, *English Coins* (1932), had followed Parsons's ordering of the types in Cnut's name and also his reversal of the first two substantive types of Carlyon-Britton's arrangement of Edward the Confessor's coinage, so placing the first four in the sequence *Trefoil-Quadrilateral*, *Radiate/Small Cross*, *Small Flan*, *Pacx*. Seaby showed that there were reverse die-links between *Arm & Sceptre* obverses in the names of Cnut and Harthacnut, pointing to the type being a single issue. He saw signs that Edward's *Pacx* type had been misplaced, for not only were there coins that looked like mules with *Arm & Sceptre* but also, at Thetford, a moneyer called Sægrim was recorded for just two types – *Arm & Sceptre* and *Pacx*. Once Seaby had shown that *Pacx* must have come first and that Carlyon-Britton had been right to place *Radiate/Small Cross* before *Trefoil-Quadrilateral*, the order of types from the death of Æthelred until the Norman Conquest had effectively been settled. It was time to study the whole system in greater depth.

C. Towards an understanding of the administration and purpose of the changes of type after Edgar's reform

In the absence of significant written evidence about the organisation and control of the Anglo-Saxon currency, every surviving coin has to be regarded as a repository of information that can be recovered either individually or collectively. In the past fifty years, initially under the inspired leadership of Christopher Blunt and Michael Dolley, increasingly sophisticated methods have been developed for doing this. Contacts with eminent Anglo-Saxon historians were soon established, and have been maintained with their successors, so that the significance of the results of such research can be explored to the mutual benefit of both disciplines.

For the post-reform coinage the research was led from the British Museum by Dolley and there was a golden period of achievement and publication throughout the 1950s and 1960s. After he moved to Belfast in 1963 his new responsibilities as a university lecturer directed him increasingly towards Irish subjects (including, of course, finds of Anglo-Saxon coins in Ireland) and local publications, but he still maintained a keen interest in the research that other students of Anglo-Saxon coinage were undertaking, both in the British Isles and in Scandinavia. This involvement inevitably diminished after he took up a teaching post in New South Wales, and failing health took a further toll in the years before his untimely death in 1983.

⁷⁵ Parsons, 'The Anglian coins of Cnut' (see note 72), p. 51, Fig. 18, *BMC* xxa.

⁷⁶ Parsons, 'The coins of Harold I' (see note 72), p. 37.

⁷⁷ R.H.M. Dolley, 'The "Jewel-Cross" coinage of Ælfgrifu Emma, Harthacnut and Harold I', *BNJ* 27 (1952–4), 266–75.

⁷⁸ Seaby, 'The sequence' (see note 62).

Gradually in the 1950s Dolley developed a hypothesis that Edgar's reform was designed to lead to type changes every six years at Michaelmas. Within a short period of such a change the coins of the previous issue would have to be exchanged for new ones. To facilitate this, minting places would be established at boroughs throughout the country so that few people south of the Mersey and Humber would have to travel more than about fifteen miles to get to one.⁷⁹ After the reign of Cnut the gap between changes was reduced to three or sometimes two years.

The hypothesis depended on the initial *Small Cross* issue of c. 973 being replaced c. 979 by *First Hand*, followed c. 985 by *Second Hand* and (after a brief issue of *Benediction Hand*) by *Crux* c.991. After an aborted attempt to replace this with another *Small Cross* issue c. 997 the new type would be *Long Cross*, which would give way c. 1003 to *Helmet* and c. 1009 to *Last Small Cross*, in the latter case after another aborted issue, *Agnus Dei*. Cnut would introduce his *Quatrefoil* type in 1017 or perhaps 1018 after the country had settled down, with *Pointed Helmet* following c. 1023, *Short Cross* c. 1029 and *Jewel Cross* just before or just after Cnut's death in 1035.

As a series of benchmarks against which the results of further research could be measured, such a hypothesis is useful. It cannot be proved and has been criticised as inconsistent with the medieval world. Because some of the dates appear to be borne out by circumstantial evidence, Dolley became wedded to the hypothesis and fought against those who argued that the design of *Second Hand* was too close to *First Hand* to have been a replacement type and in any case its issue was not fully implemented if at all in the north.⁸⁰ The Swedish scholar Bertil Petersson thought the cycle was septennial, not sexennial,⁸¹ while in a penetrating Presidential Address which, at the time it was delivered, was considered too combative for publication in *BNJ*, John Brand advanced the case for flexibility.⁸² Mark Blackburn, on the other hand, maintained that 'in the south there is adequate evidence from the hoards and from the efficient replacement of *First Hand* dies to show that *Second Hand* was intended to be a demonetizing type.'⁸³ The subject was revisited by Ian Stewart (as he then was) in an important survey of the nature of the system of type changes, published in 1990; he concluded that the concept of a geographically limited *renovatio* made little sense.⁸⁴ Further progress in dating them will be difficult unless it proves possible to link particular minting patterns with recorded payments of tribute to the Vikings. For example, if the *Crux* type was introduced c. 991 as proposed by Dolley, the geld levied after the defeat at Maldon in that year is likely to have been paid partly in old *Hand* and partly in new *Crux* coins. An explosion of minting in the latter issue by moneyers naming Hertford, Colchester, Maldon and especially Southwark⁸⁵ may perhaps be thought more likely to be associated with that geld than the one which followed the raids on London and the south-east in 994; if so, establishing its position within the *Crux* issue could be significant in determining when that issue began. There is also a need to explain an exceptional inflow to Scandinavia of early, heavy *Long Cross* pence, which clearly had a great influence on the local copying of Anglo-Saxon coins⁸⁶ and might be thought to have represented payments carried back to Scandinavia by Vikings returning home at the completion of a successful campaign such as that of 994, which ended with Olaf Tryggvason's permanent return to Norway in 995. Dolley's dating of the introduction of *Long Cross* to c. 997 would preclude any connection with that event.

The other aspect of Edgar's reform on which much attention has been focused is the renewal of the coinage following a change of type. Dolley believed that the intention was for a compulsory reminting within a matter of weeks, but in that event one would not expect hoards deposited in

⁷⁹ R.H.M. Dolley and D.M. Metcalf, 'The reform of the English coinage under Eadgar', *Anglo-Saxon Coins* (see note 21), 136–68.

⁸⁰ For early examples see John D. Brand, 'Meretricious metrology', *NCirc* 75 (1967), p. 63, and H. Bertil A. Petersson, *Anglo-Saxon Currency* (Lund, 1969), pp. 82–4.

⁸¹ Petersson, as in n. 80, pp. 84–6.

⁸² John D. Brand, *Periodic change of type in the Anglo-Saxon and Norman periods* (Rochester, 1984, privately printed), p. 33.

⁸³ Mark Blackburn, 'Æthelred's coinage and the payment of tribute', *The Battle of Maldon AD 991*, edited by Donald Scragg (Oxford, 1991), pp. 156–69 at p. 160.

⁸⁴ Ian Stewart, 'Coinage and recoinage after Edgar's reform', *SLAC* (see note 1), pp. 455–85, at pp. 471–4.

⁸⁵ Stewart Lyon, 'Some problems in interpreting Anglo-Saxon coinage', *ASE* 5 (1976), 173–224 at p. 197 n.4.

⁸⁶ Stewart Lyon, 'Analysis of the material', in H.R. Mossop, *The Lincoln Mint c.890–1279* (Newcastle upon Tyne, 1970), pp. 11–19 at p. 18.

England to contain pence of more than two adjacent issues in significant numbers. This is clearly not borne out by the great multi-type hoards of Edward the Confessor's reign,⁸⁷ but until recently it was thought that there was little evidence of multi-type hoards from England during the period when changes of type were less frequent. However, the situation has changed with the discovery c. 1992, probably not far from the Fens, of a hoard of many thousands of pence including large quantities of each of Cnut's three issues and a significant number of Æthelred's *Last Small Cross* type. Unfortunately the find was suppressed and large parcels of coins sent abroad unrecorded. Nevertheless it is now difficult to escape the conclusion that, at least as early as 1018 (and maybe much sooner, if the composition of recent unpublished hoards from Dublin can be regarded as significant), coins of superseded types could be held as a store of wealth, perhaps worth less than their face value, and did not have to be exchanged for new pence unless and until the owner had need of them to satisfy some obligation that could only be discharged with pence of the current issue, as conceivably a geld or other tax. As Lord Stewartby has commented, 'we need to remember that it is not clear whether the recoinage system was an adjunct to the collection of taxes or a means of taxation in its own right.'⁸⁸

Metrology

Although it is entirely appropriate to question the rigidity of the original sexennial hypothesis, the work of Dolley and his team in further analysing the post-reform coinage remains of fundamental importance in seeking to understand what the system involved. Two branches of this work are closely related, namely a numerical recording and statistical study of the metrology of each issue and a stylistic analysis of the die-engraving. It had long been known that the weight of the late Anglo-Saxon penny was very variable and it was thought that this was due to poor minting technique, but it soon became clear that the truth was very different.⁸⁹ During an issue the weight at which pence were minted was gradually and quite deliberately reduced, so that in some cases such as *Last Small Cross* and *Quatrefoil* it fell by as much as 40% before being raised again at the next change of type. The highest achievable standard was equivalent to about 27 Troy grains (or 1.75 g), which was attained at the beginning of several of Æthelred's issues and again c.1051–2 in the heavy phase of the *Expanding Cross* type of Edward the Confessor, but during the issues from c. 1023–c. 1051, in which the tax known as *heregeld* was payable, the maximum was only about 18 grains (1.17 g). After c. 1053 it was about 21 grains (1.36 g), close to the level at which the weight of the minted penny was ultimately stabilised by William the Conqueror.

There is as yet no agreement on either the cause or the effect of the weight changes, which the latest studies show to have been reinforced in some cases by debasement.⁹⁰ Petersson thought that the maximum reduction within an issue was an indication that the coinage was overvalued by one-third (in other words one-third of any bullion brought for reminting would be retained to cover minting charges and profit, the owner of a given weight of bullion receiving a larger number of pence the lighter they were minted), otherwise Gresham's Law would cause heavy coins to be driven out by light ones and melted down.⁹¹ Lyon argued that such an outcome could equally have been avoided by a steady increase in overvaluation from a relatively low base (in other words reductions in weight as an issue progressed could have reflected increases in retention for charges and profit, so that the owner of a given weight of bullion would receive the same number of coins regardless of how light they were).⁹² This raises the question of whether the low maximum weight of pence minted in the *heregeld* period was due to consistently high charges levied at that time to

⁸⁷ C.S.S. Lyon, 'Variations in currency in late Anglo-Saxon England', *Mints, Dies and Currency: Essays in memory of Albert Baldwin*, edited by R.A.G. Carson (London, 1971), pp. 101–20 at pp. 115–17.

⁸⁸ Ian Stewart, 'Coinage and recoinage' (see note 84) at p. 469.

⁸⁹ V.J. Butler (now Smart), 'The metrology of the late Anglo-Saxon penny: the reigns of Æthelred II and Cnut', *Anglo-Saxon Coins* (see note 21), pp. 195–214; H. Bertil A. Petersson, 'Coins and weights: Late Anglo-Saxon pennies and mints, c. 973–1066', *SLAC* (see note 1), pp. 207–433, with the comment on p. 220 that 'Anglo-Saxon moneyers technically mastered the art of producing coins with weights within very fine tolerance limits.'

⁹⁰ D.M. Metcalf and J.P. Northover, 'Sporadic debasement in the English coinage, c. 1009–1052', *NC* 2002, 217–36.

⁹¹ Petersson, *Anglo-Saxon Currency* (see note 80), pp. 97–100.

⁹² Lyon, 'Some problems' (see note 85), 206–8.

help finance this geld, or whether, as Pamela Nightingale thought, the cause was an unrecorded introduction by Cnut of a tariff of twenty-four pence to the ora in place of the previous sixteen, and ten oras (instead of fifteen) to the pound.⁹³ That a heavy pennyweight based on sixteen to the ora was in use as late as c. 1051–2 is evidenced by the heavy maximum weight of *Expanding Cross* pence. In the present writer's opinion it is more likely that there was, throughout, a silver pennyweight of one-sixteenth of an ora or silver ounce, which was superseded in Norman times by a lighter pennyweight of one-twentieth of the same ounce. This ounce would have been equal to, or comparable with, the later Tower ounce of 480 (i.e. 450) Troy grains. Pence would have been minted somewhat below the relevant pennyweight to allow for minting charges.

It may have been impossible for the owner of current pence of different weights to profit from having the heavy ones reminted, even if it were lawful so to do, but it is hard to see how the exchange of coins of a superseded issue for pence of the current issue would not have involved the owner in a greater loss the lighter the coins he possessed.⁹⁴ There is no documentary evidence to indicate that there was popular resistance to the acceptance of the lighter coins of an issue in payment for goods or services, but this may simply be because such evidence has not survived.

Die-engraving

The stylistic study of die-engraving has not been as extensive as the metrology, but has concentrated on those issues where the differences are most clearly indicative of decentralisation. Dolley himself pioneered the first such study, covering Hildebrand's Type A of Æthelred.⁹⁵ There had been a degree of decentralisation after the first flush of Edgar's reform and this had continued in Æthelred's *First Hand* type, especially but not exclusively in the north and east; *Second Hand*, predominantly a southern issue, was more uniform.⁹⁶ *Crux*, *Long Cross* and *Helmet* deserve more detailed analysis, but it seems that Parsons was right in attributing to Winchester at this time the introduction of new designs.⁹⁷ London, and occasionally Canterbury, shared with Winchester the cutting of dies for southern moneyers, while there were regional engravers at work in York and Lincoln at the least. But the dislocation caused by the Great Army in and after 1009 led to extensive decentralisation; at the outset of *Last Small Cross* even the London moneyers seem to have obtained their dies from an engraver in the West Midlands.⁹⁸ The organisation established at this time continued to be used for Cnut's *Quatrefoil* issue, as demonstrated in a detailed study by Blackburn and Lyon,⁹⁹ but thereafter the need for it diminished, as did the influence of Winchester, for it seems that before the end of Cnut's reign London had become the main centre for the production of dies and, one might presume, the design of new types.¹⁰⁰ Only when the kingdom was divided, temporarily, between Harold Harefoot and Harthacnut do we again recognise a distinctive style that can clearly be associated with Winchester, namely that which characterises the *Jewel Cross* coins of Harthacnut, with a right-facing bust, from towns south of the Thames.¹⁰¹

Little stylistic analysis of the issues of Edward the Confessor has so far been published,

⁹³ Pamela Nightingale, 'The ora, the mark, and the mancus: weight-standards and the coinage in eleventh-century England – Part 2', *NC* 1984, 234–48 at pp. 245–6.

⁹⁴ Nightingale (as in note 93, p. 239) pointed out that the law code known as IV Æthelred implies that coins were taken back (*pecunia mea recipitur*) by weight. However, it does not state whether they would be exchanged for new coins weight for weight or for a specific tale payment which might weigh appreciably less.

⁹⁵ Dolley, 'Some reflections' (see note 69).

⁹⁶ Michael Dolley and Tuukka Talvio, 'The regional pattern of die-cutting exhibited by the *First Hand* pennies of Æthelræd II preserved in the British Museum', *BNJ* 47 (1977), 53–65.

⁹⁷ See p. 000.

⁹⁸ Lyon, 'Die-cutting styles' (see note 73), 21–41.

⁹⁹ Mark Blackburn and Stewart Lyon, 'Regional die-production in Cnut's *Quatrefoil* issue', *ASMH* (see note 22), pp. 223–72.

¹⁰⁰ A London coin of Cnut from the William J. Conte collection has a reverse of the *Pointed Helmet* issue and an obverse that shows the king without a helmet but wearing a diadem. This is similar to but not identical with the obverse of the next issue (*Short Cross*) and, since the coin can be shown to have been struck before the conclusion of the *Pointed Helmet* issue, it should be regarded as experimental and not a mule of the two types. (Lyon, forthcoming.)

¹⁰¹ Tuukka Talvio, 'Harold I and Harthacnut's *Jewel Cross* type reconsidered', *ASMH* (see note 22), pp. 273–90.

although there are some pointers in J.J. North's invaluable catalogue *English Hammered Coins*. However, the *Expanding Cross* type is likely to be fully explored in a forthcoming publication by Gareth Williams of the Appledore (Kent) hoard of 1997.¹⁰² Harold II's *Pax* issue has been discussed in detail by Hugh Pagan.¹⁰³

Stylistic developments in die-cutting at a particular centre have also played a part in establishing the relative chronology of an issue at that centre and hence in demonstrating the declining sequence of weight standards. Occasionally the decline was reversed, accompanied by special symbols in the reverse field.¹⁰⁴

With a system involving such variable weight standards it is surprising that the use of symbols seems to have been quite limited, though recent studies have drawn attention to the employment of sporadic letters at Lincoln in *Last Small Cross* and gouges at Stamford and Huntingdon in *Quatrefoil*.¹⁰⁵

Die-linking and mint studies

In promoting an understanding of the organisation of the coinage an indispensable tool has been the die-link, in which, for example, an obverse die is observed in combination with reverse dies of moneyers of the same or different towns. At an early stage Dolley recognised its value¹⁰⁶ and employed it to good effect on his visits to Stockholm in the 1950s and 1960s in conjunction with other members of his team such as Gay van der Meer, Veronica Butler (now Dr. Smart) and the present writer, and also at home in a fruitful partnership with the keen-eyed and enthusiastic collector, Francis Elmore Jones.¹⁰⁷ Dolley was quick to publish new die-links (sometimes under enigmatic titles that obscured the content) and use them to demonstrate relationships between adjacent or, sometimes, quite distant towns.¹⁰⁸

In the Society's early years attempts had been made to distinguish Scandinavian and Irish imitations of Anglo-Saxon coins from their prototypes.¹⁰⁹ Die-linking work by Dolley and his team enabled the lines to be drawn with greater reliability, so providing valuable input to the magisterial study of the Anglo-Scandinavian series to c.1020 by the distinguished Swedish scholar Brita Malmer.¹¹⁰ But it is the extensive and mostly unpublished discoveries made in the past decade, especially by a numismatic researcher in Oxford, William Lean, that threaten to throw into the melting-pot the whole subject of whether, even in England, a coin was necessarily minted at the place named on it.¹¹¹

A die study is also an essential component of a detailed investigation of the coinage of an indi-

¹⁰² This hoard of coins of the Heavy sub-issue of *Expanding Cross* includes a few specimens of earlier issues but apparently none of the Light sub-issue. It therefore questions whether the latter really did precede the former as previously believed. The initial arguments are finely balanced: see Gareth Williams, 'A hoard of "Expanding Cross" pennies from Appledore: preliminary report', *NCirc* 106 (1998), 152–3; Stewart Lyon, 'The "Expanding Cross" type of Edward the Confessor and the Appledore (1997) hoard', *NCirc* 106 (1998), 426–8; and now Metcalf and Northover, 'Sporadic debasement' (see note 90), pp. 230–2.

¹⁰³ H.E. Pagan, 'The coinage of Harold II', *SLAC* (see note 1), pp. 177–205.

¹⁰⁴ Lyon, 'Variations in currency' (see note 87), p. 107.

¹⁰⁵ Lyon, 'Die-cutting styles' (see note 73), 30–1; Robin J. Eaglen and Robert Grayburn, 'Gouged reverse dies in the Quatrefoil issue of Cnut', *BNJ* 70 (2000), 12–37.

¹⁰⁶ R.H.M. Dolley, 'The relevance of obverse die-links to some problems of the later Anglo-Saxon coinage', *Commentationes de nummis saeculorum IX–XI in Suecia repertis I* (Stockholm, 1961), 153–72.

¹⁰⁷ For example, R.H.M. Dolley and F. Elmore Jones, 'The mints "aet Gothabyrig" and "aet Sith(m)estebyrig", with a philological and typographical note on Cissbury by M. Daunt', *BNJ* 28 (1955–7), 270–82.

¹⁰⁸ Dolley, 'The relevance of obverse die-links' (see note 106); R.H.M. Dolley [and] G. van der Meer, 'A die-link between the mints of Dover and London at the end of the reign of Æthelræd II', *BNJ* 29 (1958–9), 416–17.

¹⁰⁹ H. Alexander Parsons, 'Some coins of Sigtuna inscribed with the names of Æthelred, Cnut and Harthacnut', *BNJ* 11 (1915), 3–19; also 'The chronology of the Hiberno-Danish coinage', *BNJ* 17 (1923–4), 99–124.

¹¹⁰ Lyon, van der Meer and Dolley, 'Some Scandinavian coins' (see note 73); Mark Blackburn, 'An imitative workshop active during Æthelræd II's *Long Cross* issue', *Studies in Northern Coinages of the Eleventh Century*, edited by C.J. Becker (Copenhagen, 1981), 29–88; Michael Dolley, 'Imitation and imitation of imitation: some problems posed by the non-English Helmet pennies with the name of Æthelræd II', as above, 89–111; Brita Malmer, *The Anglo-Scandinavian Coinage c. 995–1020*, *Commentationes de nummis saeculorum IX–XI in Suecia repertis*, Nova Series 9 (Stockholm, 1997).

¹¹¹ For some of these links see Lyon, 'Die-cutting styles' (see note 73) and [Lean's] references in *SCBI* 50 (Hermitage Museum, St Petersburg Part I), Plates 13–51.

vidual minting town. The Society's *Journal* has published a number of these, including Axbridge (Elmore Jones),¹¹² Buckingham (Dolley and others),¹¹³ Huntingdon (Robin Eaglen),¹¹⁴ Warwick (N.J. Ebsworth),¹¹⁵ and Watchet (Blackburn),¹¹⁶ not to forget more general reviews of the mints in Sussex (Horace King)¹¹⁷ and, between the wars, Northampton and Southampton, Stamford and Peterborough (William Wells).¹¹⁸ Dolley and Elmore Jones listed the few coins now associated with an emergency mint at Cissbury in Sussex, along with others from an unlocated mint of *Gothaburh* or *Iothaburh* in the West Country¹¹⁹ (their identification of it with Castle Gotha in Cornwall having since been rejected by philologists). The sale catalogues of R.P.V. Bretell's collection of coins of the Devon mints included reviews of those mints by Ian Stewart.¹²⁰ However, pride of place must go to the pioneering study of the major mint of Lincoln by the late Henry Mossop, a Lincolnshire farmer,¹²¹ due to be followed shortly by similar studies of Winchester (Yvonne Harvey) and York (William Lean), both of which are nearing completion.

D. Miscellanea

It will be apparent that much of the post-war work on Anglo-Saxon coinage has been published elsewhere than in the pages of *BNJ*. This reflects in part the inter-disciplinary significance of such work, in part the role of the Scandinavian material, and in part the need to avoid unbalancing the *Journal* itself. Reference has already been made in passing to a number of external publications, and for completeness a number of others will now be mentioned.

The most important of these is the series of fascicles of the British Academy's *Sylloge of Coins of the British Isles*, now exceeding fifty and with the majority substantially devoted to Anglo-Saxon coins. Inspired by Sir Frank Stenton and executed under the guiding hands initially of Dolley and Blunt and more recently of Blackburn, the series has made available to numismatic and other researchers photographs, weights and provenances of many thousands of coins in public collections at home and abroad, and some in private collections also. Two volumes devoted to a cumulative index by the numismatic philologist Veronica Smart are an invaluable source for the regional study of moneyers' names, their spelling and their linguistic origin.

A second series of publications with support from the British Academy is *Medieval European Coinage*, a monumental undertaking masterminded by Professor Grierson. The first volume includes an important review of the early Anglo-Saxon coinage by Blackburn and Grierson.¹²²

In Stockholm a project for publishing the many Viking-Age hoards found in Sweden has been in progress for a number of years but has recently slowed down.¹²³ Although the listings are as complete as the surviving evidence permits, comparatively few plates of photographs are included, which limits their usefulness as a free-standing aid to numismatic research. Two publi-

¹¹² F. Elmore Jones, 'The mint of Axbridge', *BNJ* 30 (1960-1), 61-9.

¹¹³ R.H.M. Dolley, D.J. Elliott and F. Elmore Jones, 'The Buckingham mint', *BNJ* 34 (1965), 46-52.

¹¹⁴ Robin J. Eaglen, 'The mint of Huntingdon', *BNJ* 69 (1999), 47-145.

¹¹⁵ N.J. Ebsworth, 'The Anglo-Saxon and Norman mint of Warwick', *BNJ* 34 (1965), 53-85.

¹¹⁶ M.A.S. Blackburn, 'The mint of Watchet', *BNJ* 44 (1974), 13-38.

¹¹⁷ H.H. King, 'The coins of the Sussex mints', *BNJ* 28 (1955-7), 60-74, 249-63, 518-36; Addenda and corrigenda, *BNJ* 29 (1958-9), 190-1, 415; *BNJ* 30 (1960-1), 188; *BNJ* 33 (1964), 168.

¹¹⁸ William C. Wells, 'The Northampton and Southampton mints', *BNJ* 17 (1923-4), 1-49; *BNJ* 19 (1927-8), 69-91; *BNJ* 20 (1929-30), 63-93; *BNJ* 21 (1931-3), 1-57; 'The Stamford and Peterborough mints', *BNJ* 22 (1934-7), 35-77; *BNJ* 23 (1938-41), 7-28; *BNJ* 24 (1941-4), 69-109.

¹¹⁹ Dolley and Elmore Jones, 'The mints' (see note 107).

¹²⁰ Ian Stewart, 'The Exeter mint and its moneyers', *Catalogue of the R.P.V. Bretell Collection of Coins of Exeter and Civil War Issues of Devon* (Glendining & Co. sale, 28 October 1970), 3-37; 'The Barnstaple mint and its moneyers', (*Catalogue of Glendining & Co. sale*, 18 June 1975, which included the Bretell collection of coins of that mint), 6 pages; 'The mints of Totnes and Lydford and their moneyers', *The R.P.V. Bretell Collection of Coins of the Devon Mints (Final Portion): Lydford and Totnes* (Glendining & Co. sale, 8 March 1990).

¹²¹ H.R. Mossop, *The Lincoln Mint c. 890-1279* (Newcastle upon Tyne, 1970).

¹²² Philip Grierson and Mark Blackburn, *Medieval European Coinage: I The Early Middle Ages (5th-10th centuries)* (Cambridge, 1986), 155-89, 267-331, 337-8.

¹²³ *Corpus nummorum saeculorum IX-XI qui in Suecia reperti sunt: Catalogue of Coins from the Viking Age found in Sweden*. The series is intended to comprise all the Viking Age coins found in Sweden, including grave finds and single finds. Publication is by alphabetical order of parishes within a given province. The first fascicle was published in 1975 and seven more have so far followed.

cations by Professor Kenneth Jonsson are also important: one lists all the coins then known to him of the *Reform Small Cross* and *Hand* types, together with *Intermediate Small Cross* and the ensuing *Transitional Crux* varieties and all mules between later types as far as Harold II.¹²⁴ The other discusses Edgar's reform in the light of the issues preceding it.¹²⁵ Jonsson also edited a volume marking Hildebrand's centenary, *Studies in Late Anglo-Saxon Coinage*, which includes extensive tables of mints, moneyers and weights and is an indispensable research tool.¹²⁶

At home, Professor Michael Metcalf has written extensively on economic aspects of the Anglo-Saxon and other northern coinages.¹²⁷ His attempt to estimate the output of every minting town relative to that of Lincoln in each post-reform type¹²⁸ must be treated with extreme caution, for it builds assumption on assumption and so compounds the range of variation inherent in the process of statistical estimation.¹²⁹ Metcalf has also published a stimulating volume in which he poses thirty-nine questions about the evidence of finds from Edgar's reform to Harold II and critically discusses and evaluates each coin type.¹³⁰ He is not afraid to question received opinions and his analysis provides much food for thought.

Increasingly, Anglo-Saxon historians have been making use of published numismatic work in their own studies of the period. This, perhaps, is the greatest tribute that could be paid to the scholarship shown by researchers in our field in the past half-century, most of whom have been members of the British Numismatic Society. But we cannot afford to rest on our laurels: there are still many scantily explored regions of Anglo-Saxon coinage and all too few minds to explore them.

A new and welcome perspective takes the form of an art-historical appraisal of early Anglo-Saxon coinage to c. 792.¹³¹ The author, Dr Anna Gannon, makes the point that this material has largely been ignored outside numismatic circles because of its complexity, yet artistically it constitutes the most vibrant period of English coinage. By analysing its iconography her aim is to introduce its rich legacy to a new and wide audience – a laudable objective that traditional numismatic studies have so far failed to achieve.

¹²⁴ Kenneth Jonsson, *Viking-Age Hoards and Late Anglo-Saxon Coins* (Stockholm, 1987).

¹²⁵ Kenneth Jonsson, *The New Era. The Reformation of the Late Anglo-Saxon Coinage*, *Commentationes de nummis saeculorum IX–XI in Suecia repertis*, Nova Series I (Stockholm, 1987).

¹²⁶ See note 1.

¹²⁷ D.M. Metcalf, 'Continuity and change in English monetary history c.973–1086'. Part 1: *BNJ* 50 (1980), 20–49. Part 2: *BNJ* 51 (1981), 52–88.

¹²⁸ Metcalf, as in n. 127 (Part 2).

¹²⁹ See, for example, Stewart Lyon, 'Die estimation: some experiments with simulated samples of a coinage', *BNJ* 59 (1989), 1–12.

¹³⁰ D.M. Metcalf, *An Atlas of Anglo-Saxon and Norman Coin Finds 973–1086*, Royal Numismatic Society Special Publication No. 32 (London, 1998).

¹³¹ Anna Gannon, *The Iconography of Early Anglo-Saxon Coinage: Sixth to Eighth Centuries* (Oxford, 2003).