A RE-EXAMINATION OF THE CLASSIFICATION AND CHRONOLOGY OF THE CROSS-AND-CROSSLETS TYPE OF HENRY II

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Introduction

THE Cross-and-Crosslets Type (1158-80) of Henry II has a very uniform appearance since the same coin type was issued simultaneously from all mints, of which up to thirty were distributed throughout the country. This type, however, varied stylistically a great deal over the twenty-two years it was in production, and according to style the coins can be classified into six classes (A to F). It is the aim of this paper to attempt to re-evaluate the classification and chronology of each of these classes, last formulated in 1951.

Although the Cross-and-Crosslets type has not occupied numismatists to the same degree as other coinages of the twelfth century, much of the work that has been carried out is authoritative and wide-ranging. In the early part of this century the Cross-and-Crosslets type was the subject of two major studies concerning the internal classification. In 1918 Lawrence tried unsatisfactorily to devise a classification by legends. In 1927 Brooke, with the assistance of Lawrence, organised the coins by bust and the result was much sounder.2 D.F. Allen, with assistance from Elmore-Jones, published the British Museum Catalogue of the series in 1951.3 This monumental work advanced Brooke's classification, and has been so well regarded that little research has been carried out subsequently. The Pipe Roll entries, which are central to the chronology, were investigated at the beginning of the century by Carlyon-Britton,4 and the evidence was laid out in detail by Allen. Mayhew, in his chapter in A New History of The Royal Mint, has a wide ranging discussion of the most important matters concerning this coinage which up-dates some of the passages in BMC.5 Martin Allen, while dealing with this coinage of the Durham mint, suggested that the Pipe Roll evidence for the chronology could be re-examined. Most useful statistical information is provided by Metcalf, who made an estimate of the total output of the mints during the coinage, based on the number of known dies.⁷ Although this coinage is often styled 'Tealby type', throughout this paper I have followed Allen in preferring the term Cross-and-Crosslets type, 8 to avoid confusion when referring to the 1807 Tealby Hoard itself.

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- ¹ L.A. Lawrence, 'On the First Coinage of Henry II', BNJ 14 (1918), 13-37.
- ² G.C. Brooke, 'The First Coinage, or "Tealby" Type, of Henry II', NC 1927, 313-41.
 - 3 D.F. Allen, A Catalogue of English Coins in the British

Museum: The Cross-and-Crosslets Type of Henry II (London, 1951), (BMC Henry II),

- ⁴ P.W.P Carlyon-Britton, 'Historical Notes on the First Coinage of Henry II', *BNJ* 2 (1905), 185–242. This deals with extracts from Pipe Roll 2 Henry II (1155/6) to 23 Henry II (1176/7).
- ⁵ N.J. Mayhew, 'From Regional to Central Minting, 1158–1464', *A New History of the Royal Mint*, edited by C.E. Challis (1992), pp. 83–178 at pp. 83–92
- ⁶ M. Allen, 'The Durham Mint before Boldon Book', Anglo-Norman Durham, edited by D. Rollason, M. Harvey and M. Prestwich (1994), pp. 381-98 at pp. 392-5.
- ⁷ D.M. Metcalf, 'An estimate of the total output of the English mints during the "Cross-and-Crosslets" coinage, 1158-80', Edwardian Monetary Affairs (1279-1344), edited by N.J. Mayhew, BAR British Series 36 (1977), pp. 26-31.
 - 8 BMC Henry II, p. xvi.



Fig. 1. Epigraphical Table illustrating the variance between noduled and typical lettering in Class A.

The Classification

It is usual to classify coins of this series according to busts, for in the BMC 'Bust' and 'Class' are used synonymously for the convenience of describing the obverse design in the catalogue. This is somewhat misleading since the 'class' of coins can often be deduced solely from the reverse type's execution. The six classes of the Cross-and-Crosslets type defined in the BMC are an extension of the three groups devised by Brooke. The classification of the coins cannot easily be added to, but it seems that certain points can be tidied up. Brooke's system of grouping coins is not outdated by any means, and is a sensible arrangement of the coins from an aesthetic point of view which often strikes one as desirable for its simplicity.

Among the earliest dies, if not the earliest, is an obverse of Lincoln used by the moneyer Raven. This is a Class A1 die of exemplary standard. The epigraphy is ornamented with 'nodules' in the centre of each upright (Fig. 1), the crown bands are very curved and the armour, sceptre and hand have a superb unity of style. [1] (Pl. 6, 1).

Within Brooke's Group A (Allen Classes A and B) the legend becomes progressively shorter as larger lettering is used. This larger lettering occurs in most coinages of this time as the type progresses and is due to less careful engraving. The down strokes are a fraction wider and the serifs slightly exaggerated. Brooke had noted that the lettering of the earliest coins of the Cross-and-Crosslets type is most unlike that on the latest coins of Stephen's reign, but this is quite natural as one would expect the first coins of a new type to be well executed.¹² The contraction of ANGL to ANG was noted by Allen, who wrote that ANG nearly always occurs with Bust A2 and continues into B.¹³ The unbarred A is also usually found with Bust A2. A similar increase in the size of lettering had occured in Stephen's type 1, causing the legend to contract. However, as Class A of the Cross-and-Crosslets type progresses, the legend occupies more space before it is reduced. The area that the king's arm and the mantle takes up is reduced; the ornament indicating the king's mantle is turned steadily upright. This is probably why the trefoil of pellets by the king's hand on Bust A1 is omitted on A2 as the mantle becomes crushed up beside the sceptre hand (Pl. 6, 2–3; 4–5; 6–7).¹⁴

Class B is probably to be associated with A rather than C. As Allen quite rightly states, Class B should be regarded as a hang over from Class A, although he preferred to group it with C. 15 It seems unlikely that an issue of new dies would contain two distinctive styles. At some mints and in the case of some moneyers coins of Class C followed on those of Class A, and it seems likely that dies of Class B were not distributed consistently to every mint. At Durham a new moneyer (Iohan) must have taken up office during the period of Class B die cutting, and succeeded Waltier who is only known for Class A. The small number of estimated dies of Class B, 85 compared with 559 for Class A, implies only a short duration and it appears to have been

BMC Henry II. p. xviii.

¹⁰ Brooke, as in n. 2, pp. 331-33.

¹¹ Die duplicate of F.E.J 25/24.

¹² Brooke, as in n. 2, pp. 329-30

¹³ BMC Henry II, p. xxiii.

¹⁴ Each of the sets of coins on the plate are of the same mint and moneyer in order to suggest a consecutive chronological development in the design.

¹⁸ BMC Henry II, pp. lxi-lxii.

merely a distinctive phase of die cutting, without an intention to withdraw and replace existing Class A dies. ¹⁶ The 'issued on the basis of need' argument seems most strong, especially when it is noted that Canterbury, London, Lincoln and Norwich, the mints with a large output, had 57 per cent of the estimated total dies of Class B. ¹⁷ Class B dies were issued to Ipswich, which according to the interpretation of the Pipe Roll entries for *Defalta Monetariorum* was opened in c. 1161/2 and had not taken part in the first three years of the coinage. ¹⁸ It seems reasonable, therefore, that dies of Class B followed those of Class A, but that they were used in parallel with the later dies of Class A, until both were superseded by Class C. The table of *Defalta Monetariorum* in the *BMC* can be used to show that Class A was followed directly by C, but, unfortunately, it does not shed any light on where Class B appeared in the series. ¹⁹

The transition between Classes A and B is so gradual that the distinction between them becomes blurred. Only the principal designs, as grouped by Brooke, would have been recognised by the die cutters as significant, a class such as B being an unconscious stylistic development only discerned by modern numismatists. Through the following table it has been possible to identify those coins that belong to the transitional phase, in terms of epigraphy,²⁰ fleurs on the crown, diameter of the sceptre head, and reverse crosslet measurement. These transitional coins are of poorer workmanship and design compared with true coins of Class A: a glance at the plates and a comparison with the regular coins of Class A will confirm this. It must be recognised that these coins, although transitional, have the characteristics of Class A as described by Allen in the BMC.

TABLE 1. The stages of transition of dies of A2 showin	g the stylistic development that links classes A and B.

Moneyer	Mint	BMC	Fleurs	Diameter of Crosslet	Diameter of Sceptre Head	Plate
Winchester	Hosbert	769	A	2.8 mm	3.2 mm	(6,8)
Wallingford	Fulke	750	A-B	3.0 mm	2.9 mm	(6,9)
Wilton	Lantier	754	A	3.0 mm	3.6 mm	(6,10)
London	Pieres Sal.	546	A	3.2 mm	2.9 mm*	(6,11)
Exeter	Rogier	269	Α	3.5 mm	3.8 mm	(6,12)
London	Wid	572	A-B	3.5 mm	4.1 mm	(6,13)
Durham	Waltier	257	В	3.8 mm	4.1 ınm	(6,14)
Newcastle	Willem	585a	В	3.1 mm**	4.1 mm	(6,15)

Notes to Table 1:

- * The obverse die of this coin is a regular Class A2 used with a transitional reverse.
- ** This reverse is the last transitional form form of Class A, and as such the crosslets are reduced to the form usually associated with Class B (see Table 2)

The contraction of the legend ANGL to ANG, in Class A, arose out of necessity to accommodate the bust as the lettering became coarser, and it was continued in Class B. The legend is usually ANG during Class B, but is occasionally reduced to AN. The drapery suffers a drastic rearrangement in order to maintain legend and bust. Since the earliest coins of Class A have lettering of approximately 2.0 mm in height, the 3.0 mm lettering on Class B caused the legend to be more compacted and bust to be foreshortened (Pl. 6, 16). The crown and fleurs are short and stocky, compared with Class A, and the face is more rounded. The mantle arrangement was no doubt cut on to the die last of all, as its exact size and shape vary as the space allows. The

¹⁶ Metcalf, as in n. 7, p. 31 for estimated number of dies. The implication is not necessarily as strong as suggested by these widely differing figures: one would expect the initial type of any recoinage to have been large, but even so, Class B was probably brief.

¹⁷ Metcalf, as in n. 7, p. 35.

¹⁸ BMC Henry II, p. cxxxvii. For the system of Defalta Monetariorum see Table 9 below.

¹⁹ BMC Henry II, p. Ixxxi

²⁰ See table facing p. clxxxiv in BMC Henry II.

²¹ BMC Henry II, p. xiii

four forms of the mantle on Class B are therefore, as D.F. Allen quite rightly indicates,²¹ not of any chronological significance, as space available varied from die to die.

TABLE 2. Measurable differences between Classes A and B (transitional types excluded)

				Class A	Class B
(i)	Fleurs on the crown	(a)	Width	2 mm	2 mm
		(b)	Height	3.5-4 mm	2.5-3 mm
(ii)	Diameter of crosslets		20-0 3 200	2.5-3 mm	3-4 mm
(iii)	Diameter of sceptre head			2.5-3 mm	2.5-4 mm
(iv)	Epigraphy	(a)	Height	1.8-2.2 mm	2.5-3 mm
	3 (80) 15 121	(b)	Width of N	2.4-2.6 mm	2.5-3.2 mm

There is a group of irregular coins that has been identified in the *BMC* as belonging to the period of Class C.²² Coins of Class C1 and C2 are themselves notable for a certain disunity of style, yet there is a small number of dies for which the design is obviously of a different and most probably local style. Lawrence noted that within the irregular group there are three types of coin with inner circles on the obverse, ²³ of which some were likely to have been marked on as a guide when the design was cut, but not polished off, whilst on others it is most certainly part of the intended design. The inner circle exists as a hairline (Pl. 6, 18–19), a distinct dotted line (Pl. 6, 20–21²⁴), and a well-marked linear inner circle (Pl. 6, 22). Lawrence's theory that on some coins the inner circle appears because it was marked on the die as a guide, but the cutter failed to remove it afterwards, is given some credence by a coin of Newcastle. This piece is a regular Class C2 (Pl. 6, 17), and thus all the more significant as it is contemporary with the irregular group. Beneath the letters on the obverse is the clear trace of a hairline inner circle; this is in the form of a smooth arc which must have been cut using a small marking compass.

In the *BMC* it is stated that certain coins are irregular whilst others just differ from the norm, but the catalogue often describes their anomalous features rather than classifying them as a separate group. Such coins, which include those with inner circles, are sufficiently consistent in style and occur at so many mints that it is evident they were distributed from a central workshop. They seem to represent the final phase of die production of Class C, and, for the sake of convenience and consistency with the established classification, they should be termed Class C3. The essential features of this sub-class are set out in Table 3.²⁵

TABLE 3. Identification of Coins of Class C3.

(i)	Epigraphy	(a)	The Style of the lettering used on these coins was described correctly as 'lettering with reduced serifs'.
		(b)	The lettering has the appearance of being 'sharp' as some parts of the letters were probably cut on to the die rather than punched.
(ii)	Bust	(a)	The bust is large, the mantle is usually akin to C1, yet the fleurs on the
		(b)	crown are often very short and broad like those on Class D. The sceptre shaft is very thick and the jewels are very pronounced.
(iii)	Crosslets	P6:25K	These have the appearance of being more akin to an expanding cross composed of wedges, rather than the usual cross pattee.
(iv)	Inner Circles		These appear on a number of coins of this type and in three forms:
31 (5		(a)	hairline
		(b)	distinct dotted line
		(c)	well marked inner-circles

²¹ BMC Henry II, p. xxvi.

²³ Lawrence, as in n. 1, p. 18.

²⁴ The coin illustrated on **Pl. 6, 21** has an inner circle of this type to the right of the bust only.

²⁵ The evidence of the BMC plates is rather misleading. Those coins of true Class C3 are Plate XIV, numbers 11–13 and 16–20, and Plate XV, numbers 1–3, 5 and 12. Other obverse and reverse dies exist muled with Classes C1 or C2.

The tight unity of style lost in Class C is restored with D. The design becomes coarser and Class E has a different form of mantle, whilst Class F is identified by a long ringlet of hair in place of the usual single curl. In terms of the classification of these three classes (Pl. 6, 26-8), no revision can currently be made.

The Status of the Classes

D.F. Allen was heavily influenced by the then current theory that frequent periodic recoinages had been occurring about every three years since Anglo-Saxon times up until c. 1170. The reign of King Stephen was included in the theory: Brooke listed seven types for the eighteen-year reign, which works out at about two and a half years a type. On this basis it was thought that the abandonment of this system (if it did exist to any extent) occurred sometime during the Cross-and-Crosslets type. Allen noted that about three years after the introduction of the Cross-and-Crosslets type, when theoretically a change of type was expected, modifications in the design were made.²⁶ These coins he called Class B. Thus B constituted a change, but owing to the fact that few coins exist, by itself the class could not possibly warrant a duration of three years. To satisfy this problem, evidence was proposed to organise Classes B and C together, thus producing a four year term.²⁷ The conclusion is drawn that the time-scale of the classes was justified by arguing that the frequent periodic recoinages were not abandoned until a few years after 1158, and that dies of a slightly different design were being issued every three or four years until c. 1170. Blackburn has suggested that the system was abandoned in or shortly after 1125 and that Henry I type XV is the first of the immobilised coinages.²⁸ It is therefore suggested that the Cross-and-Crosslets type may be released from a dating constraint appealing to frequent periodical changes in

The ordering of the classes, as found in the *BMC*, places Class B alongside C. This conclusion was reached on the basis of mules and the activities at the mint of Ipswich.²⁹ In the case of mules Allen used the large number of B-C mules to conclude that these classes were issued simultaneously. However, the general rule for mules, as stated by Brooke, is that they occur at a change of type, and the obverse is usually the earlier die.³⁰ Therefore, following this premise, the large amount of muling of Classes B and C and A and C indicates that C followed B and A together. Mules exist between Classes A and B, but there are so many intermediate and transitional coins that true mules can usually only be identified by a difference in the epigraphy on each side. The change in epigraphy is often the key to determining the exact class to which a die belongs.³¹ Table 4 is an attempt to list the known mules, and their combinations are summarised in Table 5.

²⁶ BMC Henry II, p. xii.

²⁷ BMC Henry II, p. lxii.

²⁸ M. Blackburn, 'Coinage and Currency Under Henry I: A Review', Anglo-Norman Studies 13 (1991), 64-75; and M. Blackburn, 'Coinage and Currency', in The Anarchy of King Stephen's Reign, edited by Edmund King (Oxford 1994), p. 152. The ground was first explored by D. Walker, 'A possible monetary crisis in the early J130s', SCMB Nov. 1984, 284-6, followed up by a letter in SCMB March 1985, 56; J.D. Gomm. 'Henry 1 chronology: a case for reappraisal', SCMB April 1985, 105-7. The arguments advanced by both authors were refined by further notes: D. Walker, 'Christmas J124: end of Henry I type XIV?', SCMB July/Aug 1985, 231-3; and a letter from J.D.

Gomm, SCMB Nov. 1985, 365. If type XV lasted for around ten years one might expect there to have been some form of stylistic development as seen in Group A of the Cross-and-Crosslets coins, it is at present undetermined whether such development occurred.

²⁹ BMC Henry II, pp. Ixi-ii, Ipswich did not take part in the coinage until 1161-2 (Pipe Roll 8 Hen. II) and because it struck in Classes B and C it was concluded (p. lxx) that these two classes were issued together.

³⁰ G. C. Brooke, A Catalogue of English Coins in the British Museum: The Norman Kings (London, 1916), 1 p. xxxviii.

³¹ See section 'Classification' above, pp. 00-00,

TABLE 4. The evidence of Mules of Classes (transitional coins excluded).

Mint	Classes Muled	Moneyer	F.E.J plate	BMC
Bristol	B/A	Tancard	13/16	12 (Pl. 6, 23)
Dillitor	D/E	Rogier		9
Canterbury	E/C	Godeep	15/9	-/79
Canterbary	A/C	Ricard	16/5	98/-
	B/C	Ricard		101 (Pl. 6, 24
	A/C	Ricard	16/8	102
	D/E	Ricard		155
	C2/B	Wiulf	19/7-8	
Carlisle	E3/C	Willem	20/2	603/-
	E2/C?	Willem	20/9	224/-
Colchester	C1/A	Alwine	20/25	243b
Colonesies	A/C	Alwine	20/26	
Exeter	C/B	uncertain		273
Hereford	C1/A	Driv	21/27-8	284-7
Ipswich	D/C	Nicole		320-1
powien	D/E	Nicole		324-5
	D2/E	Nicole	22/20	
Lincoln	C/B	Goddric		391-2
Little OIII	F/C	Lanfram		404-5
	A or B/C	Raven		423
London	C/B	Alwine		450a
DOTAL ST	C/B	Alwine?		451 (Pl. 6, 25
	D/C	Edmund		459
	E/C	Edmund	463a	
	C1/B	Hunfrei	27/7	495
	C1/B	Iohan	27/10	503
	E/C	Lefwine		509
	A/C	Martin	28/3	521/523
	A/C	Martin	28/4	523
	A/B	Pieres		527a-9
	C1/B	Pieres	28/7	568/-
	C/E	Pieres		531-2
	A2/C	Pieres Mer.	28/27	541/-
	A/C	Ricard		554a
	C/B	Swetman		567
	CI/B	unidentified	29/33	469/-
	D/F?	unidentified	29/34	559/-
Newcastle	C1/A	Willem	30/5	586a-7
	C/E	Willem		592a
	D/C	Willem		595
Norwich	AI/B	Hugo	31/31	645/656
	A/B	Hugo		656
	B/C	Hugo	31/32	641/658
	C/B	Hugo		657
Thetford	B/C	Willem	33/23	731
York	A/D	Herebert	35/6	795
uncertain	A/B	uncertain	36/10-1	

The following coins have been identified as transitional A to B coins and excluded accordingly: *BMC* 586, 728-31, 541, 563-5, 656-7, 750, 775.

The following coins, once believed to be mules, have been identified as being of a true class: *BMC* 189-90, 313, 605.

TABLE 5. The percentage of muling between a class and other previous classes.
(source: BMC and F. Elmore Jones Plates)

latest class/muled with previous classes	Number of mules	Mules/Coins of latest Class	Percentage
B/A	5	5/91	5%
C/A,B	25	25/295	8%
D/A,B,C	4	4/148	3%
E/A,B,C,D	10	10/83	12%
E/A,B,C	6	6/83	7%

The lower proportion of mules between Class D and classes prior to it (3%) suggests that it represents a administrative reform through a withdrawal of previous dies, as well as a significant change in design. D.F. Allen suggested that there may have been an inquisition of moneyers before Class D.³² However, the high proportion of Class E dies muled with earlier dies excluding D (7%) contradicts this conclusion. An explanation may be that because Class D was a reform of the design, new pairs were sent to the mints, but the older dies were retained to be brought into use as need dictated.

Index of Survival

Index of Survival is the ratio of coins:estimated dies. A comparison between the Indices of Survival for each of the classes in Table 6 indicates their survival rate in a way that a comparison between the numbers of surviving coins does not, as numbers of dies (which are an indication of output) for each individual class are taken into account.

TABLE 6. The Index of Survival of the Classes of the Cross-and-Crosslets type. (surviving coins/estimated dies, source: Metcalf 1977.)

Class	Surviving coins/Estimated dies	Index of Survival for the Classes
Class A	523/559	0.94
Class B	91/85	1.07
Class C	259/223	1.11
Class D	148/114	1.30
Class E	83/115	0.72
Class F	144/238	0.60

Therefore, Table 6 shows that given a random sample of coins those of Class F are twice as likely to be from previously unknown dies as those of Class C: its Index of Survival is around half that of C. This implies that our knowledge of Classes B, C and D is really very good compared with that of E and F. Owing to the fact that the output for each of the classes effects their 'Index of Survival', and that output hinges on duration of issue, the subject shall be laid aside here and reconsidered after a thorough investigation of the chronology for each of the classes.

The Chronology

The problems of interpretation surrounding the Pipe Roll entries

G.C. Brooke was the first to propose an internal chronology for the type.³³ This was applied to the known groups of that time, and was based on various Pipe Roll entries relating to mints

³² BMC Henry II, p. clxxvii.

³³ Brooke, as in n. 2, p. 334.

and moneyers. Brooke's theories were extended by the *BMC* of the series published after his untimely death. D.F. Allen established the current classification for this coinage in 1951, and divided the coins into six classes. Allen's chronology, like Brooke's, was based largely on the interpretation of Pipe Roll entries,³⁴ but included those relating to *Defalta Monetariorum*.³⁵ Martin Allen discussed the chronology of the coinage in relation to the Durham mint, demonstrating that the Pipe Rolls do not provide rigid dates, rather they make it possible to state a likely *terminus ante quem* or *terminus post quem*.³⁶

TABLE 7. Chronology of the classes of Henry II's Cross-and-Crosslets type.

Class	Brooke, 1927	D.F. Allen, 1951	Martin Allen, 1994	Crafter preferred
Class A	c. 1158-62/4	1158-61	1158-c. 1161?	1158-c. 1163
Class B	c. 1158-62/4	1161-65	c. 1161-5x9?	c. 1162-c. 1163
Class C	c. 1162/4-67	1161-65	c. 1161-5x9?	c. 1163-c. 1167
Class D	c. 1167-80	1165-68	c. 1165x9?-c. 1172	c. 1167-c. 1170
Class E	c. 1167-80	1168-70	c. 1172-?	c. 1170-c. 1174
Class F	c. 1167-80	1170-80	?-1180	c. 1174-1180

The Pipe Rolls supply rough dates which any chronology must take into account, but what the scanty information implies is often difficult to pin down. Martin Allen's example of Elverdus Porrere (Alferg or Alfehg on the coins) at Canterbury illustrates this problem well.³⁷ The minting rights for the Abbey of St. Augustin ended when it was seized by the king on the death of Abbot Sylvester in 1161,³⁸ but the moneyer, Elverdus Porrere, could have ceased to coin years before, or continued to strike for the king.³⁹ These difficulties of interpretation are all too apparent in the Pipe Rolls entries for Colchester and Newcastle/Carlisle and are discussed fully below. The commencement of the Cross-and-Crosslets type occurred in 1158, as established by Lawrence and Brooke on the basis of reports in contemporary chronicles, and supported by the levying of taxes on moneyers and boroughs in 1158–59 (Pipe Roll 5 Hen. II) concerning the termination of Stephen's last type at the introduction of the new coinage.⁴⁰ Table 8 is an attempt to set out clearly how D.F. Allen reached the dating conclusions which lead to the chronology as set out in the *BMC*.

D.F. Allen also cites the fact that in 1167–68 ten moneyers of London were charged with a marriage tax, to raise money for the marriage of the Matilda, the king's daughter, to Henry the Lion of Germany. Allen suggested that Class D was in issue at that time, as this class alone is known for seven out of nine moneyers.⁴¹

Pipe Roll notes (BMC Henry II, p. lxx):

- (a) Class A2 was probably being struck before 1161-62, when Willelm of Wilton could no longer be found.
- (b) Classes A2 and B1 or B2 were being struck before 1162-63, when Gillebert of Norwich had absconded to Essex
- (c) Class A2 was being struck before 1163-64, when Ricard of Norwich had fled to Scotland.
- (d) Class A2 was in issue in 1161, when Alferg of Canterbury ceased to coin.
- (e) Class B or C was in issue in 1161-62 or soon after, that being the date when the mint of Ipswich opened.
- (f) Class D was being struck before 1174-75, when Herebert of York was dead or in exile.

³⁴ BMC Henry II. pp. lxv-lxxii.

³⁵ BMC Henry II, p. Ixxvi, This system is explained and the evidence discussed below.

³⁶ M. Allen, as in n. 6, p. 393.

³⁷ Allen, as in n. 6, p. 392-3.

³⁸ William Thorne's Chronicles of St. Augustin's Abbey, Canterbury, translated by A.H. Davis (Oxford, 1934), p. 94.

³⁰ However, the latter stituation is unlikely to have occurred as the revenue would have accrued to the crown and been recorded in the Pipe Rolls. The rents of the archbishopric were in the king's hands between 1164 and 1173, see BMC Henry II. p. cxix.

an Brooke, as in n. 2, p. 327; and BMC Henry II, pp. lx)v-v.

⁴¹ BMC Henry II, pp. lxviii–lxx. The number may include exchangers at the mint.

- (g) Class D was being struck before 1168-69, when Accard of London went crusading. Class D and E were being struck before 1171-72, when Johanes Peucier and Petrus Merefin were dead.
- (h) Class E was probably being struck at Colchester before 1167-68, the year in which the mint closed.
- Class F was probably being struck before 1173, when Willelm FitzErembald finally ceased to pay off his
 debts.
- (j) Class C was probably being struck in 1164-65, when Robert of Ipswich first became a moneyer.

TABLE 8. D.F. Allen's dating conclusions from the Pipe Rolls.

Class	Pipe Roll notes	Date suggested by Pipe Roll entry	Allen, 1951	Widest Possible dates for the Class
A	(a) (b) (c) (d)	1161-62 before 1162-63 before 1163-64 in issue 1161	1158–61	1158 – c. 1161 x c. 1163
В	(b) (e)	before 1162-63 1161-62 or soon after	1161–65	c. 1161 x c. 1162 - c. 1162 x c. 1163
С	(e) (j)	1161-62 or soon after in issue 1164-65	1161-65	c. 1161 x c. 1164 - c. 1165 x c. 1168
D	(f) (g) (g)	before 1174-75 before 1168-69 before 1170-71	1165–68	c. 1165 x c. 1167 - c. 1168 x c. 1170
E	(g) (h)	before 1170-71 before 1167-68	1168-70	c. 1167 x c. 1170 - c. 1170 x c. 1173
F	(i)	before 1173	1170-80	c. 1170 x c. 1173 - c. 1179 x 1180

An explanation of the system of Defalta Monetariorum and the problems associated with its evidence

During the Cross-and-Crosslets period six boroughs operated the system of *Defalta Monetariorum*. Under this system the towns paid the crown an annual fee, through the sheriff, for the right of having a particular number of moneyers, usually fixed at £1 per moneyer. If moneyers did not operate the town obtained a rebate from the crown. The evidence of mint activity from these six boroughs subject to the system is very uncertain and relies on the premise that when a rebate was granted in full, no moneyers were striking coins. Using this premise, a period where the rebate was granted in full, combined with the last class (or first class) each mint is known to have struck, leads to a date at which that class had to have been struck. Allen noted that the evidence of the coins could not easily be reconciled with the Pipe Roll evidence.

There are also problems of the exact complement of moneyers at Ipswich and Thetford, whether there were ecclesiastical dies at Norwich, Winchester and York, which may or may not have been recorded as part of the system of *Defalta Monetariorum*; and if the baronial dies at Ipswich are additional. In conclusion, this is not sound evidence by any means and should be treated with the caution afforded to the Pipe Rolls in general. The figures refer only to Royal moneyers, and to those that are indicated in the Pipe Rolls, whilst baronial and ecclesiastical moneyers may have been exempt from this system altogether. Some of the mints

⁴² BMC Henry II, pp .lxxvii-lxxxi.

⁴³ BMC Henry II, p. lxxii.

may have had other moneyers working as well, which accounts for the excess of working moneyers over those known.

TABLE 9. Period of Defalta Monetariorum entries in the Pipe Rolls indicating no activity at the mint, in relation to the first and last class known of each mint.

Mint	Period when, according to the Pipe Rolls no moneyers at a work.	Pipe Rolls	First Class/Last Class of mint
Colchester	1167/8-1179-80	14 Hen II-26 Hen II	Class A/Class E
Ipswich	1157/8-1160/1	4 Hen II-7 Hen II	Class B/Class F
	1177/8-1179-80	24 Hen II-26 Hen II	
Norwich	1176/7-1179-80	23 Hen II-26 Hen II	Class A/Class D
Thetford	1179-80	26 Hen II	Class A/Class F
Winchester	52	A Personal Company	Class A/Class E
York	1179-80	26 Hen II	Class A/Class D

The importance of the Mint of Colchester in the chronology: a re-evaluation of the evidence

The one piece of dating evidence that is central to the whole chronology is that of the mint of Colchester. The town had an allowance for *Defalta Monetariorum*, so that when any of the town's complement of four moneyers was not striking the town obtained a rebate of £1 per moneyer. From Pipe Roll entries of 1166/7 (13 Hen II) to 1179/80 (26 Hen II), allowances made to the sheriff were increased from 60s. to £4. This has been interpreted to mean that the mint was entirely inoperative during those years.⁴⁵ The conclusion has subsequently been drawn that the latest coins of Class E were struck 1167/8⁴⁶ and that subsequently the mint was closed,⁴⁷ but as has been seen the problems of the Pipe Rolls and the lack of correspondence to the coins leave an impression of doubt.

This conclusion is quite valid if the assumptions are correct. Mayhew was the first to raise concern about the validity of this conclusion, pointing out the lack of correspondence between the coins and *Defalta Monetariorum* entries, suggesting that the problem may lie in the chronology.⁴⁸ At Colchester only Alwin is known from both the Pipe Rolls and the coins, and his latest coins are of Class C. There is no evidence in the Pipe Rolls of a moneyer called Pieres, whose latest coins are of Class E. Alwin and Pieres both strike Class C, and yet the lowest allowance made to the sheriff is of 60s., indicating that only one moneyer was active. In theory the two moneyers could have operated in succession, but this would mean within a time frame of 1161–1167 in which classes C, D, and E were struck. This is the chronology that Allen proposed, but when the evidence of *Defalta Monetariorum* was tabulated Class E is dated to 1170–72, outside the chronology of c. 1168–70.⁴⁹

Of the two active moneyers of Colchester, only Alwin is recorded in the Pipe Rolls and only one is recorded in the evidence for *Defalta Monetariorum*. This evidence implies the closing of the town's mint in 1167/8 and it is reasonable that this closing affected Alwin; as his last class was Class C this class can reasonably be said to have terminated in c. 1167. Pieres' coins of Class C are from irregular dies, and presumably he was not recorded then or later when at work in Class E.

⁴⁵ Carlyon Britton, as in n. 4, p. 189.

⁴⁶ BMC Henry II, p. cxxix and pp. lxix-lxx.

⁴⁷ BMC Henry II, p. cxxix.

⁴⁸ Mayhew, as in n. 5 pp. 88-9.

⁴⁹ BMC Henry II. p. lxxxi.

The use of the entry relating to Colchester to date Class E to 1167-68 condensed the first five classes into the first ten years, and left at least another ten for the issue of Class F. The marriage tax of 1167/68 does not conflict with this suggestion that Class C terminated in c. 1167, implying a connection between the tax and the reform of the dies in Class D.⁵⁰ At the Durham mint Class C is only struck by the moneyer Cristien. Cristien is referred to in Reginald's Libellus (chapter 95) of which the first 111 chapters were probably completed by January 1167; this evidence is consistent with the dating of Class C to in or before 1167.⁵¹

The importance of the 1173/4 rebellion against Henry II for the chronology, with particular reference to the composition of the hoards and their connection with the itinerary of forces

If the dating constraint of 1167/8 is changed from Class E to C, then it is necessary to investigate what evidence there is for the dating of Classes E and F. In these classes the numbers of mints and moneyers were reduced overall in England. The group is the same as Class D, but the style of workmanship is markedly poorer. The most noticeable and important point concerning these two classes is the rarity of Class E at East Anglian mints, and Class F is particularly common at Ipswich. It is suggested in the BMC that Class E is rare because it was in issue during the Rebellion of the Young King of 1173, and that F is common owing to the fines exacted on the region in its aftermath, 52 although it was not dated so. Several hoards which contain all classes except F have been found in troubled areas, or in proximity to routes of forces in 1173/4 (see Figs 2 and 3). Of these hoards Wicklewood, Norfolk, is perhaps the most significant as it probably represents savings over twenty-five years or more, which stop abruptly in Class E.53 It might have been buried for safety by its owner, or perhaps plundered by mercenaries, but what should be noted is its location south-west of Norwich. Hugh Bigod with Flemish mercenaries captured Norwich in 1174, and Henry II's force passed through the region from Huntingdon to attack Bungay the same year.⁵⁴ Nor in the Brackley, Northamptonshire, board is Class F represented, but as it comprised only thirteen coins one cannot place too much weight upon it.55 (See Appendix for the full list of hoards and the references.) However, in the context of its location it is possible to draw a connection between its deposition or non-recovery and the events of 1173/4.56 The latest coins in the West Meon, Hampshire, hoard are of Class E, and the East Anglian bias of the hoard suggests that the coins, or a majority of them, had reached West Meon from that area of disturbance.⁵⁷ The Bramham Moor, Yorkshire, hoard may have a connection with the war against Roger Mowbray, although nothing is known about the contents of this hoard. Similarly the Outchester hoard's location of deposition could be linked with Richard de Lucy's northern expedition that burned Berwick, but this is only a tentative suggestion given the information available.

⁵⁰ BMC Henry II, p. Ixviii—Ixix (g). The facts suggest but do not prove that the most likely class to have been in issue in 1167–8, at the time when the London moneyers were charged with the tax, is D.

⁵¹ Allen, as in n. 6, p. 394.

⁵² BMC Henry II, p. xiii, and p. clxxvii.

⁵³ Christie's Sale Catalogue, Tuesday, 15 May 1990, p. 14.

⁵⁴ For the history of the 1173/4 rebellion see H.W.C. Davis, England Under the Normans and Angevins, Chapter

IX 'The Sons of Henry II'; A.L. Poole, From Domesday Book to Magna Carta, 1087-1216, p.277 (for the Scottish border) and pp. 335-7 (for England); Mrs J.R. Green, Henry the Second, Chapter IX, 'The Revolt of the Baronage' pp. 170-87.

⁵⁵ Marion M. Archibald and B. J. Cook, English Medieval Coin Hoards 1, unpublished.

⁵⁶ Archibald and Cook, as in n. 55.

⁵⁷ Archibald and Cook, as in n. 55.



Fig. 2. Map of the location of British hoards containing coins of the Cross-and-Crosslets Type.

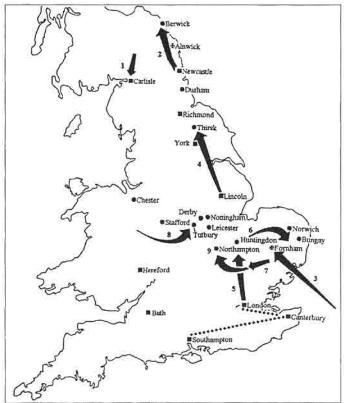


Fig. 3. Map of the routes of forces during the 1173/4 Rebellion against Henry II.

Number on Map	Itinerary of Force
1	Scots capture Carlisle, 1173.
2	Richard de Lucy's expedition into Lothian captures and burns Berwick.
3	Flemish mercenaries land at Walton, Suffolk, under the Earl of Leicester, but are defeated at Forham St. Genevieve a few miles north of Bury St. Edmunds. In the following year Flemish under Hugh Bigod capture Norwich (not shown).
4	Geoffrey, illegitimate son of Henry II and Bishop elect of Lincoln, moves against and crushes Roger Mowbray.
•••	Henry II's route of return from the continent in 1174: Southampton 8th July; pays penance at the tomb of Becket, Canterbury, London 14th July.
5	18th July 1174 Henry II marches north from London with a force to join the forces besieging Huntingdon.
6	The king's army then moves against Bungay and Bigod's other Suffolk castles.
7 and 9	Henry II marches from Suffolk to Northampton where he holds court on 31 July 1174 and receives the submission of the earls.
8	Henry II's Welsh allies attack Tutbury, a stronghold of the Earl of Ferrers

It is therefore suggested that Class E was in issue in 1173/4 and that Class F had a shorter duration, commencing after the rebellion. The baronage did not have time during the rebellion to usurp royal power for themselves as they had during Stephen's reign, although attention is drawn in the *BMC* to the possibility that certain baronial coins were struck during the insurrection, but the author does not elaborate.⁵⁸

D.F. Allen's suggestion of the termination of the mints of Newcastle and Carlisle re-evaluated

The northern mints of Newcastle and Carlisle were run jointly by one moneyer, who farmed the mint and the silver and lead mines at Alston Moor, Northumberland.⁵⁹ The bullion supply had been dwindling since the beginning of the twelfth century, and across Europe new sources of silver were being sought.⁶⁰ The mines at Alston Moor represent the only silver mines within the Angevin Empire at that time, so it is likely that Henry would have attached special importance to them.

It has been suggested that the moneyer, Willelm FitzErembald, could not have been minting after 1173 as he was hopelessly in debt, 61 but there seems to be no substantial evidence put forward for this cut-off point. It seems unlikely that Henry II would have allowed the valuable silver mines on Alston Moor to remain inactive for seven years. Added to this it should be noted that Willelm still held the tenure of the mines up until early 1180, and during that time continued to be burdened with the farm of both the mint and the mines, which from 1165–6 to 1179–80 stood at £366 6s. 8d.62 The conditions of confusion that so marred the English minting activities of the 1170s make it quite conceivable that coins were still being minted by Willelm until 1180 and the commencement of the Short Cross coinage. Coins of Class F are common from Newcastle and Carlisle.

From the evidence evaluated above it seems likely that Class C terminated in c. 1167, Class E was in issue during the 1173/4 rebellion and Class F commenced after it. Table 10 shows this evidence together with the other Pipe Roll dating conclusions.

⁵⁸ BMC Henry II, p. xiii. However Alien suggests that that the coins attributed to Henry, Earl of Northumberland, in the reign of Stephen (Brooke, BMC Norman Kings, p. xcviii C(a) and p. 139) were perhaps struck c. 1173 for Henry the Young King, son of Henry II (BMC Henry II, p. I and footnote). R.P. Mack did not concur with this view in his paper 'Stephen and the Anarchy', BNJ 35 (1966) p. 99

⁵⁹ BMC Henry II, p. xeviii, also pp. exiii-vii.

⁶⁰ P. Spufford, Money and its use in Medieval Europe, Chapter 5 'New Silver', and map p. 110.

⁶¹ BMC Henry II, p. lxix; this statement tallys badly with the conclusion on p. lxx.

⁶² BMC Henry II, p. exxv.

TABLE 10. Dating evidence from the Pipe Rolls, some of which adjusted, together with other evidence of the status and order of the classes and the impact of the 1173/4 rebellion.

Class	Pipe Roll notes	Suggested dating conclusion from evidence	Widest Possible dates for the classes	Crafter preferred
Α	(a) (b) (c) (d) (k)	in or before 1162–63 in or before 1163–64 in or before 1164–65 in or before 1161 see note below	1158 – c. 1161 x c. 1163	1158 – c. 1163
В	(b) (e) (l)	in or before 1163–64 1161–62 or soon after around end of Class A	c. 1161 x c. 1162 - c. 1162 x c. 1163	c. 1162 – c. 1163
С	(e) (j) (m) (n)	1161–62 or soon after 1164–65 or soon after terminates c. 1167 in or before January 1167	c. 1161 x c. 1164 – c. 1167	c. 1163 – c. 1167
D	(f) (g) (g) (o)	in or before 1175–76 in or before 1169–70 in or before 1171–72 in or before 1167–68	c. 1167 – c. 1168 x c. 1170	c. 1167 – c. 1170
E	(g) (p)	in or before 1171–72 in or before 1174	c. 1169 x c. 1170 – c. 1170 x c. 1174	c. 1170 – c. 1174
F	(q)	in 1174 or soon after	c. 1174 – c. 1179 x 1180	c. 1174 – 1180

Notes on Table 10

Information in the Pipe Rolls was recorded between the middle of the accounting year, which ended at Michaelmas (29 September), and the summer of the following year. For example, the 1161-62 Roll was compiled in 1162-63.

(a)-(g) and (j)	See Table 8 (above).
(k)	The theory that the early Cross-and-Crosslets classes were subject to a system of design changes
	every three or four years, following the Anglo-Saxon and early Norman system of frequent
	periodic recoinages, is not valid as the system (whose extent is not fully understood) was
	abandoned in 1125 or shortly afterwards.
(1)	Class B is contemporaneous with A and not C.
(m)	Class C terminates at the closing of Colchester in Pipe Roll 14 Henry II (1167/68).
(n)	Cristien of Durham referred to as moneyer in Reginald's Libellus, which was probably completed
	by January 1167.
(0)	The 1167/68 Marriage tax is levied about the same time as the introduction of Class D.
(p)	Class E is in issue during the 1173/74 East Anglian Rebellion.
(a)	Class F is introduced after the 1173/74 Rebellion

The new chronology compared with the previous one in terms of output of the coinage, using statistics from Metcalf 1977

With a new chronology established from the documentary evidence, it can be compared with the previous one in terms of output of the coinage. In Metcalf's estimation of the number of dies, a histogram was drawn on the basis of D.F. Allen's chronology and order of the classes, and of the number of dies per class. This histogram is reproduced as Figure 4, and Figure 5 shows another using Metcalf's die estimates with the author's preferred ordering of the classes and chronology.

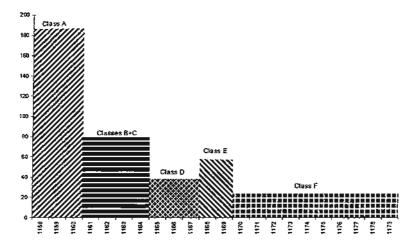


Fig. 4. Histogram of Classes and Dies reproduced from Metcalf 1977, p. 29, which uses Allen's Chronology and order of the classes.⁶³

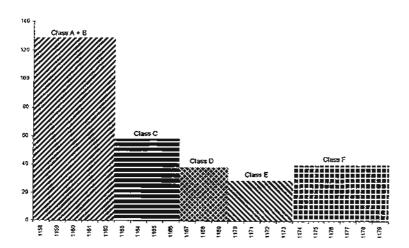


Fig. 5. Histogram of Classes and Dies according to Crafter's preferred ordering and chronology.

As the number of dies is a reflection of output, it is possible to compare the trends produced by each chronology. For both histograms Class C is similar and Class D is the same, but Fig. 5 suggests more sustained activity over a longer period for Classes A and E. When depicted on the histogram, the two year duration that Allen assigned to Class E implies that mint output was quite prolific for the short period. Fig. 5 implies a more even output for classes D, E and F. (It should be noted that the small decline in Class E may not be significant since, if Class E's duration was extended by six months to a year, classes E and F would have almost equal levels.) What can be said about these results is that the new chronology implies a more even output after the end of the initial recoinage of 1158.

⁶³ As the chronology is only approximate, the years are given as those of the commencement of Pipe Roll terms, thus

¹¹⁷⁹ begins in September of that year and runs until September 1180.

An explanation of the use of Single-Find evidence for a chronology; and the bias of the sample

When the evidence of single finds for the volume of the currency and the internal chronology is considered, the Cross-and-Crosslets type poses some of the most difficult problems of any English series in the twelfth century. The theory behind their use is that single finds represent random loss from circulation.

There are major difficulties to note when dealing with Cross-and-Crosslets single find evidence:

- (i) Only a small minority of single finds are recorded.
- (ii) A large proportion of those recorded are misclassified.
- (iii) Some coins are too badly preserved to make classification possible.
- (iv) Frequent periodic recoinages were now totally abandoned, therefore the series was struck for twenty-two years, and it is possible that some coins circulated for longer.⁶⁴ In order to use the single find evidence we need to know how long coins of a particular class remained in circulation

Although these problems cannot easily be tackled, it is nevertheless worth exploring the single find evidence further.

Sources: BNJSgFd Excav. SCB1 MJBUnpub. Totals Class A 2 3 2 16 Class B 2 1 1 4 7 2 Class C. 1 5 16 Class D 4 5 1 Class E 3 2 1 6 Class F 7 3 4 14 Uncertain Class 4 2 4 2 28 16 Counterfeit 1 1 7 9 Totals 47 3 10 12 90

TABLE 11. Single finds of the Cross-and-Crosslets Type

Total excluding coins of uncertain class and counterfeits: 61

Notes on the sources

BNJ British Numismatic Journal, 1987-94, Coin Register.

SgFd 'Single-Finds of Anglo Saxon and Norman Coins' 1 (BNJ 1984), no.25; 2 (BNJ 1985) no.22 and 43–44; 3 (BNJ 1986), no. 102 and 139.

Excav. York excavation report.

SCBI Sylloge of Coins of the British Isles, vol. 26, Museums of East Anglia, Number 1487.

vol. 42, South-Eastern Museums: Ancient British, Anglo-Saxon and later coins to 1279, Numbers 1963, 1964; 1997–2001; 2003.

vol. 48, Northern Museums: Ancient British, Anglo-Saxon, Norman and Plantagenet coins to 1279, Numbers 1367; 1375.

MJB Information kindly provided by Mr M.J. Bonser.

Unpub. 'Single Finds of Anglo-Saxon and Norman Coins' 4, I am grateful to Dr Mark Blackburn for letting me see the manuscript and providing information on five other unpublished single finds.

⁶⁴ The coinage was demonetised some time before Pipe Roll 34 Hen. II, see BMC Henry II, p. lxxiv.

TABLE 12. The Index of Survival of 61 classifiable single finds.65

	Class A	Class B	Class C	Class D	Class E	Class F
Number of coins (Table 5)	16	4	16	5	6	14
Percentage of Single Finds	26%	7%	26%	8%	10%	23%
Estimated dies (Metcalf 1977)	559	85	223	114	115	238
Index of Survival	0.029	0.047	0.067	0.044	0.052	0.059

Within any class, the number of finds should reflect the number of coins in circulation and the duration of circulation. Thus coins of Class A could in theory have circulated for up to twenty-two years, whereas coins of Class F could not have circulated for more than some six years. However account must be taken of wastage from the currency. In theory it should be possible to work out an average wastage rate from the hoards. The single find evidence for this coinage is almost certainly biased. For Class A one would expect the number of single finds to be high as it circulated the longest.⁶⁶

The Hoard Evidence: the models of composition of the currency and wastage from circulation

The evidence of the partially recorded hoards can be unfairly distorted in favour of one type. In this series the recording of hoards is often now very good, but the largest hoards were found in the last century when recording was not so meticulous. Of c. 6000 coins in the Tealby hoard of 1807 all but around 750 were melted down at the Tower.⁶⁷ The majority of the pieces that remain are of Class A, but this was probably not the case of the hoard as a whole, which was buried c. 1180. The coins were selected by Taylor-Combe on the basis of the legibility of the mint signature, which would favour the better struck coins of Class A.⁶⁸

To determine the composition of the circulating coinage at the time of a hoard's deposit is extremely complicated, but the 'Index of Survival' can be used satisfactorily. As the figure represents the ratio of coins:estimated dies, the Index of Survival for a currency hoard indicates the composition of the currency at a given date and the prevalence of the classes, in a way that plotting the actually number of coins would not. This is clear from the Leicester hoard where the numbers of coins of Class B is small compared with A, but its survival rate is better than coins of Class A (see Table 13).

TABLE 13. The Index of Survival in two fully recorded hoards.

Class	A	В	C	D	E	F	Total
Estimated total dies (Metcalf)	559	85	233	114	115	238	1344
Lark Hill, Worcester hoard Number of coins Index of Survival	77 0.14	14 0.16	39 0.16	43 0.37	30 0.26	2 0.01	208 0.17
Leicester hoard Number of coins Index of Survival	25 0.04	8 0.09	39 0.16	15 0.13	15 0.13	58 0.24	238 0.18

⁶⁵ Index of Survival is the ratio of coins to estimated dies. A comparison between the Indices of Survival for the classes indicates their survival rate in a way that a comparison between the numbers of surviving coins does not, as numbers of dies (which are an indication of output) for each individual class are taken into account (see section 'The Status of the Classes' above).

were cut more, and cut coins are eschewed by recorders of finds this might compensate for the figure.

⁶⁶ Allen noted the lack of cut coins of the later (and more ill-struck) classes, BMC Henry II, p. clxxvii, If Class A coins

⁶⁷ For the probable content and fate of this hoard see C. Sturman, 'Sir Joseph Banks and the Tealby hoard'. *Lincolnshire History and Archaeology* 24 (1989), 51-2.

⁶⁸ R. H. M. Dolley and F. Elmore Jones, 'A Parcel of Cross-and-Crosslets Pence from the Tealby Find', *BNJ* 29 part 1(1958), 82–6 at p. 82.

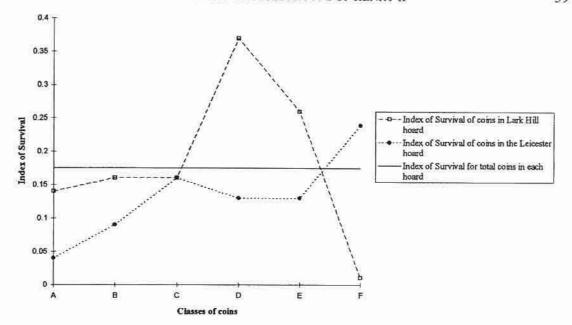


Fig. 6. The Index of Survival of the various classes represented in the Lark Hill and Leicester hoards.

When the Index of Survival for the hoard as a whole is plotted as a straight line, the figures for the individual classes and whether they are above or below it will, in theory, indicate whether the hoard is a currency or savings hoard. The Index of Survival for a currency hoard is useful for determining the wastage rate, as the figures will represent the composition of the circulating coinage around the time of deposition.

The method indicates that currency and savings hoards can be distinguished, but the evidence is insufficient to enable conclusions to be drawn concerning wastage.

The Lark Hill and Leicester hoards are of very similar size and the Index of Survival for the both hoards is around 0.175. Figure 6 illustrates the difference in the rate of class survival of the hoards. From examination of these figures it is suggested that the Leicester hoard is a currency hoard, as Class F is the only class of coins which has a survival rate that exceeds that of the hoard in its totality. The Lark Hill hoard by comparison shows some savings element. If the Leicester hoard was buried during the late 1170s and its contents are a random sample then the hoard represents a snapshot of the composition of the currency at that time. From the Index of Survival of the various classes it is possible to say that the wastage from the coinage of Class A coins was high in proportion to the output (compare Fig. 5) by the late 1170s. The wastage of coins of classes C, D and E as a proportion of the falling output across these classes is of an even level (compare Fig.4). The Index of Survival for Class F is high and of a level one would expect if the hoard was assembled during this class. Unfortunately, at present there are an insufficient number of hoards that have been adequately recorded and published to be able to determine wastage rates of the Cross-and-Crosslets coinage adequately. As further hoards are discovered and recorded in totality, it is to be hoped that a comparison can be made by using the method outlined above. In this way it should be possible to establish the wastage rate from currency hoards and thus allow the Single Find evidence to be adequately used to investigate the validity of the new proposed chronology.

TABLE 14. British and Continental Hoards containing coins of the Cross-and-Crosslets type

	Place of discovery. county, date of discovery	date of deposition	Henry I	Stephen	Class A	Class B	Class C	Class D	Class E	Class F	uncertain class	Short Cross	Total
1.	Awbridge, Hants., 1903	c. 1165	_	35	40	5	20	_	-	_	39	_	c. 180
2.	Bramham Moor, Yorks., <1756	c. 1165	_	_	8	-	4	_	_	_	_	-	12?
3.	London Bridge, c. 1850	?	_	3+	_	_	_	_	-	_	X	_	?
4.	Outchester, N'humberland, 1817	c. 1173?	-	_	10	2	6	ļ	1	_	X	-	c. 1000
5.	Royston, Cambs., 1721	?	_	_	_	_	_	_	_	_	?	_	?
6.	Fornham, Suffolk, >1900	c. 1173	_	_	-	_	_	_	_	-	20+	_	20+
7.	Brackley, N'hamptonshire, 1986	c. 1173	_	_	3	1	5	2	2	_	_	_	13
8.	Reach Fen, Cambs, c. 1900?	?	_	_	-	_	1	_	_	_	X	_	15+
9.	Ellesborough, Bucks., 1777	c. 1173	_	_	4	2	3	l	2	_	_	-	11
10.	Wicklewood, Norfolk, 19892	c. 1173	17	324	X	X	X	X	Χ	_	_	_	482
li.	West Meon, Hants., 1992 ²	c. 1173	_	_	X	X	X	X	X		_		34
12.	Lark Hill, Worcester, 1853	c. 1175	-	_	77	8	39	43	30	2	3	_	229
13.	Cutherstone, Yorkshire, c. 1782	?	_	-	_	_	_	_	_	_	1+?	_	?
14.	Tealby, Lincolnshire, 1807	c. 1180	-	_	71	8	20	12	6	9	c. 5600	_	5731?
15.		c. 1180	_	_	2	-	l	1	_	3	1	_	8
16.	Norton Subcourse, N'folk, 1987-90	c. 1180	-	_	12	2	!!	3	_	7	6	?	41
17.	Amphill, Beds., 1836	c. 1180	_	_	14	5	19	$(46)^3$	(46)	(46)	49	_	133
18.	Leicester, Leics., 1927	c. 1180	_	_	25	8	39	15	15	58	_	_	238
19.	Gayton, Northants., 19982	c. 1180	-	_	X	X	X	X	X	X	X	_	147
20.	St. Thomas's Hos., London, 1863	c. 1185	_	_	_	_	_	_	_	_	2	28	30
21.	Chinon, France, c. 1913	?	_	_	-	_	_	J	_	_	X	?	?
22.	Scrabo Hill, Co. Down, 1855	c. 1180	_	_	_]	_	_	_	1	1	_	50+
23.	Come, Anger, France, c. 1930	c. 1180	_	_	7	_	4	1	4	-	_	_	16+
24.		c. 1185	_	_	3	_	l	1	3	8	_		60+
25.	Isle of Man, pre-1769	c. 1180	_	1	_	_	_	_	_		2		7+
26.	Daeli, Hedmark, Norway, 1840	c. 1200	_	1]	-	_	_	_	4	- c.	5000	
27.	Estonia, 1967	c. 1200	_	_	1	_	_	_	_	3	_		440
28.	Rome, Italy, <1917	c. 1200	_	1	_	_	_	$(9)^{3}$	(9)	15		293	
	Near East ('Barbarossa Find')	c. 1190	_	_	1	_	I	_	_	_	_	16	?
28b	Near Middlesborough, <1932	?	_	_	7	2	3	-	-	-	66?		78?

It is uncertain whether this hoard contained any Cross-And-Crosslets coins at all, and indeed the exact location of Cutherstone.
 this hoard has not been analysed by class at this stage.
 Sets of bracketed figures in consecutive class columns indicate combined figures for those classes. The figures are excluded for the minimum recorded in hoards.

Conclusion

From Table 10 it is possible to conclude that, with the re-examined evidence of the Pipe Rolls and the evidence of the hoard deposits in the historical context, it seems that the chronology for the Cross-and-Crosslets type may be revised as follows- Class A c. 1158–c. 1163; Class B c. 1162–c. 1163; Class C c. 1163–c. 1167; Class D c. 1167–c. 1170; Class E c. 1170–c. 1173; Class F c. 1173–80. These are very close to the general dates proposed by Brooke, for his groups (cf. Table 7). It must be stressed that these dates are only approximate, and since no individual class represents sweeping reform of the mint system and muling is widespread in some classes, it would be irresponsible to suggest a rigid dating system. There is still much to be learned about the Cross-and-Crosslets type, and it remains to be seen how far the English fiscal system was altered as a precursor to the Short Cross coinage. The statistical evidence for the chronology is difficult to interpret owing to the unusual biases in this coinage. Through continuing endeavour to record hoards in full, and single finds accurately, however, it will hopefully be possible to apply the statistical methods outlined above so that it becomes possible to further our understanding of this difficult coinage and its significance in the context of the other coinages of the twelfth century.

KEY TO PLATE 6

- Class A1 early, Lincoln, moneyer Raven. Obv. +hENRIREX[ANG]L; rev. +RAVEN:ON:[LIN]CO: (Crafter, die duplicate of F.E.J. plate 25/24 and H. Mossop, The Lincoln Mint (1970), plate XC, 11–12)
- Class A1, Canterbury, moneyer Rogier. Obv. +hENRIR[EX-N]GL; rev. +R[OGI]ER:ON:[C]ANT (BM, catalogue 159)
- Class A2, Canterbury, moneyer Rogier. Obv. +hEN|RIREX-|NGL; rev. +ROGIER:ON:CAN (BM, catalogue 161)
- Class A1, Newcastle, moneyer Willem. Obv. +hENRIREXANGL; rev. +WILLEM:[O]N:NEVCAS (BM, catalogue 583)
- Class A2, Newcastle, moneyer Willem. Obv. +hENRIREXANGL; rev. +WILLEM:ON:NIVCA (BM, catalogue 584)
- Class A1, Oxford, moneyer Adam. Obv. +hENRIREXANGL; rev. +ADAM:ON:OXENFO (BM, catalogue 687)
- Class A2, Oxford, moneyer Adam. Obv. +hENRIREXANGL; rev. +ADAM:ON:OXENE (BM, catalogue 686)
- Class A transitional, Wincester, moneyer Hosbert. Obv. +hENRIREXANGL; rev. +h|O|SBERT:ON:WIN (BM, catalogue 769)
- Class A transitional, Wallingford, moneyer Fulke? Obv. +hENRIREXANGL; rev. +| JON:WALI: (BM, catalogue 750)
- Class A transitional, Wilton, moneyer Lantier, Obv. +hENRIREXANGL; rev. +LANTIER:(O)N:PILTV (BM, catalogue 754)
- Class A transitional, London, moneyer Pieres Sal. Obv. +hENRIREXANGL; rev. +P—ES:SAL:ON:L[V]N: (BM, catalogue 546)
- Class A2/A transitional, Exeter, moneyer Rogier. Obv. +hENRI[REX]ANGL; rev. +ROGIER:ON:EXCES (BM, catalogue 269)
- Class A transitional, London, moneyer Wit. Obv. +hENRIREXANG; rev. +WID:ON:LVNDEN (BM, catalogue 572)
- Class A transitional, Durham, moneyer Waltier. Obv. +hENRI[REX] ANGL; rev. +W[——]ER:ON:DVN: (BM, catalogue 257)
- Class A transitional, Newcastle, moneyer Willem. Obv. +hENRIREXANGL; rev. +WILLEM:ON:NIVCA (Fitzwilliam Museum, BMC 586a)
- Class B1, Canterbury, monyer Ricard M. Obv. [+hENRI]REXANG; rev. [+]R[ICARD:M:O]N:CAN (Crafter, die duplicate of BMC 150)
- Class C2, Newcastle, moneyer Willem. Obv. [+hENR]I:REX; rev. +|PILLAM:|ON:NE: (Crafter, die duplicate of BMC 589)
- 18. Class C3, Lincoln, moneyer Raven. Obv. [+hENRIRE]XANGL; rev. +RAVEN:ON]:LINC[O]L] (BM, catalogue 424)

- Class C3, Lincoln, moneyer Raven. Obv. [+]hENREX[ANGL]; rev.
 [+RAVEN:ON:]LINCOL (Crafter; die duplicate of BMC 424; Mossop plate XC,16 this coin; ex. Tealby hoard, 1807, BNJ 1958 part 1, p.84, number 16, this coin)
- 20. Class C3, Exeter, moneyer uncertain. Obv. []EXS; rev. [-]R?[—]RL (or D):ON:X[SE—:] (BM, catalogue 273)
- 21. Class C3, Bury St. Edmunds, moneyer Henri. Obv. +hENR[I]R[E?]; rev. [+hEN]RI ON:SED[M?] (Crafter, die duplicate of F.E.J plate 13/21)
- Class C3, Northampton, moneyer Warnier. Obv. [+hE]NRIREXANG; rev. +WARNIER:ON:N[—]A[:] (BM, catalogue 637)
- Class B3/A, Bristol, moneyer Tancard. Obv. +h[E]NRIR[EX] ANG; rev. +TANC[ARD:ON:BR]I (BM, catalogue 12)
- 24. Class B/C, Canterbury, moneyer Ricard. Obv. [+]hE[NRIR]EXA [NGL]; rev. +RI[C]ARD;ON:C[A]N (BM, catalogue 101)
- 25. Class C/B, London, moneyer Alwine? Obv. +hENR:R:AG; rev. [------]:ON:LV[-] (BM, catalogue 451)
- Class D1, Ilchester, moneyer Adam. Obv. +hENRI:REX: rev. +ADAM:ON:IVEL: (BM, catalogue 295)
- 27. Class E. Colchester, moneyer Pieres. Obv. +hENRIRE: rev. +PII 1:+ON:COL: (BM, catalogue 247)
- 28. Class F, Thetford, moneyer Willem. Obv. +hENRIREXAN; rev. +WILLEM:[ON]:TEF (BM, catalogue 742x)

APPENDIX: THE HOARDS

The BMC covers seventeen hoards known to Allen at the time, but the analysis table only deals with ten of these. This section is an attempt to deal with all twenty-eight known hoards and to break each down by class. The dates of deposit suggested in the table are only appoximate. The following abbreviations are used:

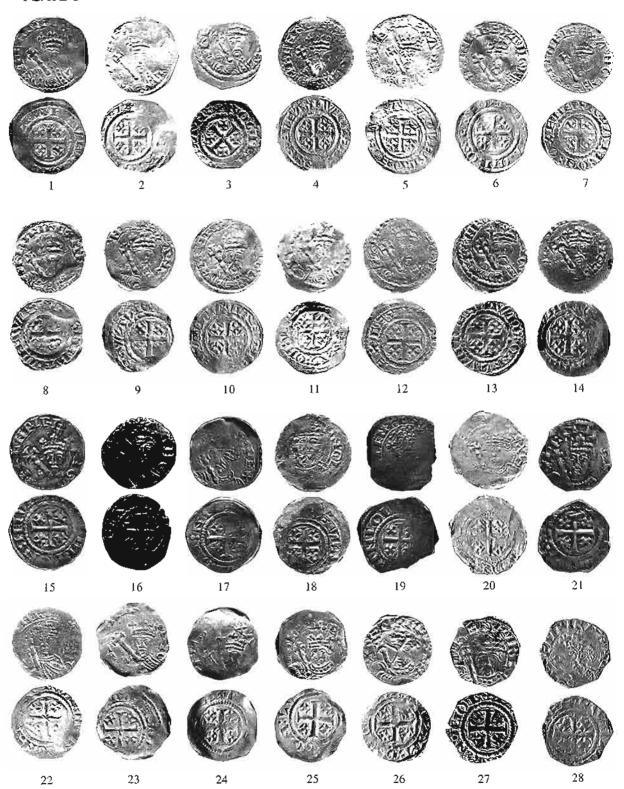
BMC Henry II D.F. Allen, A Catalogue of English Coins in The British Museum: The Cross-and-Crosslets (Tealby') type of Henry II. (London, 1951)

Inv. J.D.A. Thompson, Inventory of British Coin Hoards A.D. 600–1500 (London, 1956.)

Mack. R.P. Mack, 'Stephen and the Anarchy 1135–54', BNJ 35 (1966), pp. 38–112.

- Inv. 16; H. A. Grueber, 'A Find of Coins of Stephen and Henry II at Awbridge, near Romsey' NC 4:5 (1905), pp. 354-63;
 BMC Henry II, pp. Ivi-Ivii.
- Inv. 52; R. Withy and I. Ryall, "Twelve Plates of English Silver Coins from the Norman Conquest to Henry VIII" (1756), Plate III; BMC Henry II, pp. xlvi-xlvii.
- 3. Inv. 246; Mack 104; C.E. Blunt, F. Elmore-Jones, and P.H. Robinson. 'On Some Hoards of the Time of King Stephen', BNJ 37(1968), 35-42, at 41; BMC Henry II, p. liv.
- 4. Inv. 299; Mack 106; Metcalf, 'The Evidence of Scottish Coin Hoards', number 5; BMC Henry II, pp. xlix-lii.
- Inv. 113; BMC Henry II, p. xIvi.
- Inv. 165; BMC Henry II, p. Ivii.
- 7. Unpublished information from Miss M.M. Archibald.
- F. Elmore-Jones collection Sale Catalogue, Part III, lot 1702, Glendining's, 7/11/86. Possibly uncertain hoard (n) in BMC Henry II, pp. lvii–lviii.
- Inv. 154; BMC Henry II, pp. xlvii; H.E. Pagan, 'Some hoard evidence for the Tealby Type of Henry II' NCirc volume 77, 1969, p. 163.
- 10. Unpublished; information Miss M.M. Archibald, 324 coins were sold by Christies, 15 May 1990, lots 1–159. (No Cross-and-Crosslets type illustrated in sale catalogue.)
- 11. Unpublished; information Miss M.M. Archibald.
- 12. Inv. 381; BMC Henry II, pp. liv-lvi.
- 13. Inv. 319.
- 14. Inv. 352; BMC Henry II, pp. xlviii-xlix; C. Sturman, 'Sir Joseph Banks and the Tealby Hoard', Lincolnshire History and Archaeology 24 (1989), pp. 51-2.
- 15 Unpublished information from Miss M.M. Archibald.
- 16. Unpublished information from Miss M.M. Archibald.
- 17. Inv. 7; BMC Henry II, pp. lii-liii,
- 18. Inv. 231; BMC Henry II, p. lix.
- 19 Unpublished joint work: T.C.R. Crafter and Gareth Williams.

- 20. Inv. 251; W. Boyne in NC 1863, pp.145 ff.; BMC Henry II, p. Ivi.
- 21. BMC Henry II, p. lix.
- BMC Henry II, p. lvi.
 F. Elmore Jones, NCirc 1965, pp. 125–6.
- 24. A. Dawson and N. Mayhew, 'A Continental Find of Tealby Pennies', BNJ 57 (1987).
- 25. I. Stewart, 'An Eighteenth Century Manx Find of Scottish Sterlings', BNJ 33 (1964).
- 26. H. Holst, 'Funn av myntskatter i Norge inntil slutten av 19. arhundre', Norisk Numismatisk Arsskrift (1936), 5-26. at p. 14. B1; 'Mynter og myntilignende metallpreg fra de Britiske Oyer I norske funn, nedlagt etter ar 1100', Norisk Numismatisk Arsskrift (1939), 103-24, at pp. 110-12; BMC Henry II, pp. liii-liv.
- SCBI Estonia (forthcoming).
 BMC Henry II, p. Iviii.
- 28a. See Ulrich Klein, in Schweigerische Numismatische Rundschan 65 (1986)
- 28b. Unpublished; information kindly provided by Bill Lean. Twleve coins classified provisionally are in the Dorman Museum,



CRAFTER: CROSS-AND-CROSSLETS TYPE