THE CARLISLE AND DURHAM MINTS
IN THE SHORT CROSS PERIOD

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In 1863 W. H. D. Longstaffe published a paper which introduced the fundamentally new idea that the Short Cross coinage had been struck during the reigns of Henry II, Richard I, John, and Henry III. Longstaffe supported this proposition principally by associating documentary evidence for periods of activity at the Carlisle and Durham mints with existing Short Cross pence. The present paper is a reconsideration of the activity of these two mints in the Short Cross period, incorporating the results of a die-study of 88 Carlisle coins and 122 Durham coins. The discussion of these results is supplemented by diagrams, which represent the dies noted in the study and record the numbers of studied coins that provide evidence of each die-combination. Plates VI–IX illustrate a coin from each die-combination. The dies are arranged on the diagrams and on the plates in the same partly chronological sequences, which have been based upon subjective judgements of ‘style’ and the evidence of die-links. Each die has been allocated a three-digit number, with a prefix (e.g. CA or DU) indicating the mint (upper-case and lower-case prefixes denote obverse dies and reverse dies respectively). Appendix B provides the illustration number corresponding to each set of characters allocated to a die-combination found in the study.

The earliest Short Cross pence from Carlisle are those attributable to L. A. Lawrence’s class Ia. The coin which provides the evidence for die-combination CA112/cal112 was considered to be a class Ia/class Ia ‘mule’ by Lawrence because it exhibits a ‘square’ letter C on the reverse, but this distinctive letter probably resulted from the modification of a letter L on an ordinary class I die. Since class Ia reverse coins attributed to Carlisle are ‘Cardu’ (ca124, ca424) and ‘Cadul’ (ca130), which can be equated with contemporary forms of the name of Carlisle discussed by W. H. D. Longstaffe, NC 1863, pp. 165-6.

In this paper the classification proposed by L. A. Lawrence, BNU xi (1915), 59–100, is used with the amendments summarized in SCBI 12, Ashmolean Museum Oxford, Part I English Coins 1066-1279, pp. xii-xiv. For consideration of the Durham coins of classes VI and VII in the context of the coinage as a whole see Ian Stewart, ‘English Coinage in the Later Years of John and the Minority of Henry III, Part I’, in this volume, pp. 26–41.

1 NC 1863, pp. 162-88.
2 The aggregate of all coin-production facilities located in the same town or city is referred to as a ‘mint’ in the following discussion. Associated exchanges are considered separately.
3 These sequences do not necessarily reflect the order in which the dies were manufactured or used. The arrangement of some dies, especially those of class I, is partly arbitrary. Furthermore, some of the dies may have been used concurrently although they are represented sequentially.
4 The first digit in each set of three is derived from the class of the designated obverse die, or from the class of obverse dies used with designated reverse dies. The second digit is often used to distinguish groups of similar or die-linked dies. The use of consecutive numbers has been avoided, to allow the accommodation of dies that may remain to be discovered.
5 The fullest mint names found on the Short Cross coins attributed to Carlisle are ‘Cardu’ (ca124, ca424) and ‘Cadul’ (ca130), which can be equated with contemporary forms of the name of Carlisle discussed by W. H. D. Longstaffe, NC 1863, pp. 165-6.
6 In this paper the classification proposed by L. A. Lawrence, BNJ xi (1915), 59–100, is used with the amendments summarized in SCBI 12, Ashmolean Museum Oxford, Part I English Coins 1066-1279, pp. xii-xiv. For consideration of the Durham coins of classes VI and VII in the context of the coinage as a whole see Ian Stewart, ‘English Coinage in the Later Years of John and the Minority of Henry III, Part I’, in this volume, pp. 26–41.
7 BNJ xi (1915), Pl. II, no. 2. This coin shows evidence of a die flaw below the second letter E on the obverse. Such a flaw is only visible on one of the examples of die-combination CA112/cal109.
8 P. Woodhead, paper read to the British Numismatic Society, 26 Apr. 1977.
FIG. 1. Carlisle, class 1b.
dies seem to have been made for the Wilton mint after 1 July 1180,\textsuperscript{9} it is probable that none of the dies used to strike class Ib coins in Carlisle were produced before this date.\textsuperscript{10}

Although William FitzErembald was the Carlisle moneyer before the introduction of the Short Cross coinage in 1180,\textsuperscript{11} Short Cross class I pence of Carlisle give the moneyer’s name as ‘Alain’ or ‘Alein’\textsuperscript{12}. This new moneyer can be identified as the ‘Alanus Monetarius de Carleolio’ who had incurred a fine of 1 mark at Michaelmas (29 September) 1181.\textsuperscript{13} ‘Alanus Monetarius’ and Richard the brother of Humfrey farmed the profits of the ‘Carlisle’ mines, for an annual payment of £50 each, from Michaelmas 1185 to Michaelmas 1190.\textsuperscript{14} ‘Alanus Monetarius’ became the sole farmer of these Cumberland and Northumberland mines, which yielded lead and silver,\textsuperscript{15} from Michaelmas 1190. His annual payment after this date was still £50, but £40 of this was payable to Hugh of le Puiset, the Bishop of Durham, until Michaelmas 1193.\textsuperscript{16}

D. F. Allen considered that the Carlisle mint existed to coin silver from the ‘Carlisle’ mines, and that consequently it may have operated without an associated exchange during the introduction of the Short Cross coinage.\textsuperscript{17} There does not seem to be any surviving documentary evidence for exchanging activities in Carlisle at the time of the recoinage which introduced the Short Cross type.\textsuperscript{18} However, evidence for the existence of a Carlisle exchange during a later phase of the production of Short Cross pence will be discussed below.

Although the possible sources of the Carlisle mint’s silver are problematic, comparatively large numbers of dies seem to have been needed to deal with the supply during the production of class I Short Cross pence. The 38 class I pence of Carlisle that I have submitted to die-comparison\textsuperscript{19} were produced from 21 obverse dies and 29 reverse dies used in 32 combinations. I am not aware of any reliable way to estimate the total numbers of dies that may have been used,\textsuperscript{20} but it may be possible roughly to estimate the proportions of the Carlisle class I pence that were produced from dies I have not found. C. S. S. Lyon has argued that the proportion of the studied coins of a given type which are not the only representative of a die can be used as an estimate of the proportion of the total original output that was struck from the known dies.\textsuperscript{21} Using a converse argument, obverse and reverse dies I have

\textsuperscript{9} J. D. Brand and F. Elmore-Jones (BNJ xxxv (1966), 16-19) have proposed that the Wilton mint was opened for the production of Short Cross pence after the burning of the Winchester mint on the night of 1/2 July 1180. They located coins from two class Ia reverse dies which had been made for the Wilton mint in addition to coins from two Winchester reverse dies which had been altered for use in Wilton.

\textsuperscript{10} Some ‘class Ib’ dies may have been produced at the same time as those showing the lettering of class Ia and class Ib together. However, I consider that no Carlisle dies would have been amongst these since I have not located a Carlisle coin that exhibits a portrait resembling those found in conjunction with class Ia lettering.


\textsuperscript{12} The former reading is normal but the latter version was exhibited by reverse die ca175.

\textsuperscript{13} P.R. (Pipe Roll) 27 Henry II (1181), p. 26.

\textsuperscript{14} P.R. 32 Henry II (1186), p. 100; P.R. 33 Henry II (1187), p. 97; P.R. 34 Henry II (1188), p. 192; P.R. 1 Richard I (1189), pp. 140–1; P.R. 2 Richard I (1190), p. 52.

\textsuperscript{15} D. F. Allen, op. cit., pp. xcviii, cxxiii.


\textsuperscript{17} D. F. Allen, op. cit., p. xci.

\textsuperscript{18} Ibid., pp. lxxix-xl.

\textsuperscript{19} Two specimens known to me have been excluded from the die-study because they are not well enough preserved to allow die-comparison.

\textsuperscript{20} Weaknesses of several methods that have been proposed are discussed by I. D. Brown, NCirc. Feb. 1979, pp. 60–1.

\textsuperscript{21} H. R. Moseley et al., The Lincoln Mint c. 890–1279, p. 16.
not found would have produced approximately $\frac{7}{38} = c. 18$ per cent and $\frac{32}{36} = c. 58$ per cent respectively of the output. It must be emphasized that these estimates are only approximate even if Lyon’s argument is sound.

One of the obverse dies that I classify as class Ic (CA187) seems to have exhibited the ‘cross pommée’ letter x that is frequently characteristic of class II dies,22 which were probably being produced in 1189 or 1190.23 I have not found a Carlisle coin that can be securely attributed to class II. However, an obverse die of class IIIa (CA315) was used with a reverse die of ‘Alein’ (CA315), and was apparently superseded by a class IVa obverse die (CA415) found combined with the same reverse die. I have noted a total of six class IVa obverse dies (CA415–CA445) used with seven new Carlisle reverse dies of ‘Alein’ (CA415–CA445).

The earliest Short Cross coins that exhibit a Durham mint-signature (i.e. one beginning with the element ‘Dur’ or ‘Dun’) are attributable to class IVa,24 which was first produced no later than 1194.25 This does not conflict with W. C. Wells’s supposition that Bishop Hugh of le Puiset, who died on 3 March 1195, was allowed to reopen the Durham mint in 1194 as compensation for his loss of the earldom of Northumberland.26 The compilers of the 1183 ‘Boldon Book’ survey of this bishop’s revenues recorded that he had derived income from dies in Durham before they were removed by the king.27 However, the chronicler Roger of Howden stated that the bishop had not been allowed to strike coins in Durham for ‘multo tempore’ before the grant of such a privilege to Hugh’s successor-elect, Philip of Poitiers, in ‘1196’.28

22 The ‘cross pommée’ letter x can be seen on the class II ‘Lichfield’ pence (which are illustrated in NCirc. May 1974, p. 191), and on some of the class II pence from Lincoln, London, and York.
23 L. A. Lawrence, op. cit., p. 69, considered that the earliest Short Cross pence of Canterbury, which can be attributed to class II, were struck soon after the grant of minting privileges to Archbishop Baldwin by a charter of 1 Dec. 1189.
24 L. A. Lawrence, ibid., p. 96, noted Durham pence of his class IIIb. However, I have not located any Durham coins which can be attributed to class IIIb as redefined by J. D. Brand, BNJ xxxiii (1964), 59.
27 W. Stubbs ed., Chronica magistri Rogeri de Howden, iv. 13. ‘1196’ in this instance is probably the period from 25 Dec. 1195 to 24 Dec. 1196 since Stubbs (op. cit. IV, p. xxx) deduced that Roger used Christmas Day as the first day of the year.
Since Roger probably began ecclesiastical and administrative careers before 1177, and had a personal knowledge of government documents which might have included some concerning the episcopal mint, his statement should not be disregarded without any contradictory evidence. Wells's supposition that Hugh was allowed to reopen the mint in 1194 was not based on any such evidence and I consider it to be improbable.

Longstaffe believed that the Durham mint was reopened after the grant to Bishop Philip. However, there is evidence for the existence of an exchange, and hence probably a mint, in the 'sede vacante' period before Philip's appointment. Gilbert FitzReinfrid and Richard Briewere, who were the king's custodians of the bishopric for three-quarters of a year from 2 April 1195, accounted for £130. 13s. 8d. spent 'ad cambium faciendum' (i.e. in either establishing or operating an exchange). As a result, £170. 0s. 4d. profit was partly derived from exchanging. It may be concluded that the Durham mint was probably reopened in this 'sede vacante' period, although the possibility that it was reopened before or after this period cannot be completely eliminated.

The class IVa obverse die that I consider to have been probably the earliest obverse die employed at Durham in the Short Cross period (DU415) was used with two reverse dies of a moneyer 'Adam' (du412, du415) and one reverse die of a moneyer 'Alein' (du418). I have not found any other reverse dies of 'Adam', but two further

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29 F. Barlow, EHR lxv (July 1950), 352-60.
30 W. Stubbs, op. cit. IV, p. viii.
31 NC 1863, p. 170.
33 Hugh Bardolf had custody of the bishopric from 5 Mar. to 2 Apr. 1195 (Chancellor's Roll, 8 Richard I (1196), p. 261).
obverse dies which might be tentatively attributed to class IVa (DU425, DU435) were each used with two new reverse dies of the moneyer ‘Alein’. The most satisfactory interpretation of this evidence is that ‘Adam’ was the first moneyer of Durham in the Short Cross period and that he was succeeded by ‘Alein’.

The moneyer ‘Alein’ of Durham may have been the contemporary Carlisle moneyer Alan(us). A partial precedent for this is provided by the example of William FitzErembald, who seems to have been the moneyer of Newcastle in addition to being Alan’s predecessor at the Carlisle mint.34

Alan’s farm of the ‘Carlisle’ mines was terminated at Michaelmas 1198.35 Longstaffe assumed that Alan ceased to be a moneyer at the same time,36 but this is not an inevitable conclusion. Alan had been known as a moneyer before he became a farmer of the mines. Furthermore, he seems to have lived until at least Michaelmas 1201, when ‘Alanus Monetarius’ was cited as a witness to the Sheriff of Cumberland’s improvement of some fortifications.37

The latest coins of a moneyer ‘Alain’ or ‘Alein’ from the Carlisle and Durham

35 At Michaelmas 1199 Alan was reported to have paid the £10 that was outstanding from the £50 due for the previous year’s farm, while Hugh Bardolf and William of Stuteville were apparently responsible for the farm in halves of the current year (P.R. 1 John [1199], pp. 311-12).
36 NC 1863, pp. 171, 186.
37 P.R. 3 John [1201], p. 253.
mints are those attributable to class IVb. I have noted one obverse die of class IVb (CA455) used with two new reverse dies of ‘Alein’ at Carlisle, and three class IVb obverse dies (DU443–DU455) used with a total of four further reverse dies of ‘Alein’ at Durham. Another class IVb obverse die (DU465) was used at Durham with a reverse die of a new moneyer ‘Pires’, who evidently succeeded ‘Alein’ as the bishop’s sole moneyer. I have been unable to locate a Durham coin of class IVc, although L. A. Lawrence reported that this new moneyer ‘used the letter s reversed in class IV’. However, a moneyer ‘P(i)eres’ was responsible for all of the later Durham Short Cross pence.

None of the Durham reverse dies of class IV have been found used with more than one obverse die. This may indicate that each obverse die and its associated reverse die or dies had to be returned to the Exchequer, or an intermediate agent, before a new set of dies would be issued. However, associated dies were not necessarily all supplied at the same time. If ‘Adam’ preceded ‘Alein’ as the sole moneyer his reverse dies would have been supplied before the associated reverse die of ‘Alein’. Furthermore, the two reverse dies (du433, du436) used with one of the obverse dies tentatively attributed to class IVa (DU435) rendered the mint’s name as ‘Dure’ and ‘Duno’ respectively, which might indicate that they were not produced at the same time. The letter N may have been consistently substituted for the letter R in the name on dies produced after a certain date since the coins struck from the other obverse dies attributed to class IVa give the name as ‘Dur’, ‘Dura’, or ‘Duro’, while the coins of class IVb show it as ‘Dun’, ‘Duno’, or ‘Dunol’.

On 26 January 1205 an assize was enacted which modified earlier restrictions upon the ownership of clipped pence, and made provisions for the exchange of such coins. The only official exchanges were to be those of the king and the Archbishop of Canterbury, apparently indicating that the episcopal exchange and mint of Durham were to be closed or had already been closed.

The assize ordered that if any pence made after Christmas 1204 had been clipped they were to be pierced and the possessors of such coins should be apprehended as thieves. It was apparently an established fact that coins minted after this date could be readily distinguished from those produced before it. The new distinctive coins would have been those of the neat reformed variety which L. A. Lawrence classified as class Va and associated with chroniclers’ references to a reform of the coinage in 1205. The novel ‘cross pommee’ initial-mark on these coins may have been specifically intended to render them distinguishable from earlier coins. Thus it is possible that the old dies of class IV had been recalled by Christmas 1204, and were replaced with new dies of class Va after this date. Two pairs of dies of class Va

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38 BNJ xi (1915), 96.
39 Documentary evidence for the supply of dies from the Exchequer to Durham in 1218 is discussed below.
40 The final letter in the abbreviation ‘Duno’ may be an incomplete letter L. However, J. D. Brand (NCirc. Oct. 1971, p. 360) has proposed that the letter i which can be observed at the end of the reverse legend on some class IV coins is often a meaningless space filler. This is a possible explanation for the letter i in the abbreviations ‘Cardi’ and ‘Cari’ found on Carlisle reverse dies ca426 and ca422 respectively.
41 S. Smith, introduction to P.R. 7 John (1205), pp. xxviii–xxix.
42 S. Smith, op. cit., p. xxviii.
43 BNJ xi (1915), 65.
44 Ibid., p. 70.
45 The only regular English Short Cross pence earlier than this reformed type that exhibit an initial-mark resembling a ‘cross pommee’ belong to a very rare variety of class IVb discussed by J. D. Brand, BNJ xxxiii (1964), 60.
exhibiting the characteristic reversed letter s and the 'cross pommée' initial-mark were used at Durham (DU513/du513, DU516/du516), and it may be concluded that these were probably produced after Christmas 1204.

The latest possible date for the production of class Va dies incorporating the reversed letter s may be tentatively derived from a consideration of the Chichester mint. A writ of 29 April 1205 anticipated the provision of dies for episcopal and royal use in Chichester, and these were ordered from William FitzOtho the hereditary die-maker on 17 May 1205. The earliest Chichester Short Cross pence (e.g. BNJ XXVIII. i (1955), Pl. III, no. 39) were subsequently produced from dies which exhibited the normal letter s of class Vbi but retained the 'cross pommée' initial-mark of class Va. It is probable that these dies or their successors were in Chichester by 27 July 1205, when William of Wrotham was notified that the royal minting and exchanging facilities in the town were to be temporarily granted to the Bishop of Chichester.

Consequently, if it is assumed that the production of reversed-s dies was followed by the production of normal-s dies without any concurrence it may be concluded that reversed-s dies such as those used at Durham were probably not made later than July 1205. It might be suspected that the earliest class V dies used at Chichester were provided a few days after the order to William FitzOtho, and it would then be concluded that production of reversed-s dies was probably discontinued in May 1205 at the latest.

47 Ibid., p. 32.  46 Close Roll, 7 John (1205), p. 29.  48 Ibid., p. 44.
The Durham class Va reverse dies rendered the moneyer’s name as ‘Perez’. One of the class Va obverse dies (DU516) was also used with the two class Vbi reverse dies I have found (du523, du526), and these gave the moneyer’s name as ‘Pieres’. This latter version is used on all subsequent Durham Short Cross pence.

The class Vb dies used at the Durham mint seem to have been supplied in sets consisting of two obverse dies and two reverse dies. I have noted four such apparent sets, in which one or both of the two obverse dies have been used with both reverse dies. There are no die-links between these sets, which is consistent with a system of exchanging used sets for new sets similar to the system postulated in the discussion of class IV Durham pence. However, one class Va obverse die was still available for use when the first set of class Vb dies arrived.

There are no Carlisle pence of class Va. However, a class Vbi obverse die (CA515) was used with two reverse dies of a new moneyer ‘Tomas’, eventually developing extensive surface damage. I have also noted three class Vbii obverse dies (CA522–CA528) and six further reverse dies of ‘Tomas’ (ca520–ca530). Two of these reverse dies (ca524, ca530) were used with different combinations of two of the class Vbii obverse dies.

In 1208 ‘Alanus f(ilius) Alani de Carduil’ (i.e. Alan the son of an Alan of Carlisle) was said to owe 30 marks to Terricus of Canterbury, who had farmed the profits of the exchanges in Canterbury, London, and York for periods ending at Michaelmas 1207. Since this 30 marks was owed ‘de cambio de Carduil’ it may represent a sum to be paid for the farm of the Carlisle exchange, although it is not clear whether the son of Alan of Carlisle was the farmer of this exchange. It is more certain that ‘Tomas f(ilius) Alani de Carduil’, who was later reported to have been the debtor and to have paid the 30 marks to the Constable of Chester, was the moneyer ‘Tomas’. The Christian name of Tomas’s father corresponds to the name of the previous Carlisle moneyer. Furthermore, the Christian names of the people said to be responsible for debts to Terricus in connection with the Chichester and Ipswich exchanges also correspond to moneyer’s names found on class V coins of the respective mints.

On 10 January 1208 the moneyers and others concerned with the production of the English coinage in Carlisle, Durham, and elsewhere were due to assemble at Westminster with their dies. The exchange of deficient pence required by the assize of January 1205 may have been substantially complete, and a possible function of this gathering could have been to determine which exchanges and mints were no longer necessary. The six mints, including that of Carlisle, which produced class Vb pence and no later Short Cross issues were probably permanently deprived of their dies at this meeting or closed soon after it. The closure of the Carlisle mint does not seem to have been postponed by any supply of bullion from the ‘Carlisle’ mines or by any remaining demand for the exchange of silver.

49 P.R. 10 John (1208), p. 169.
50 P.R. 13 John (1211), p. 154. Roger of Lacy, the Constable of Chester, was responsible for the farm of Cumberland between Michaelmas 1204 and Michaelmas 1209 (P.R. 7 John (1205), p. 268; P.R. 8 John (1206), p. 43; P.R. 9 John (1207), p. 127; P.R. 10 John (1208), p. 42; P.R. 11 John (1209), p. 93).
51 P.R. 10 John (1208), p. 169.
53 J. D. Brand (BNJ xxxiii (1964), 68) supported a similar view.
The Durham mint remained open after the death of Bishop Philip on 22 April 1208. When Eimeric the Archdeacon of Durham and Philip of Ulecote accounted for the period between 24 June 1208 and 11 November 1211, as the custodians of the bishopric, there was £18. 11s. profit from the dies in Durham. In the subsequent period until 11 November 1212 the exchanging facilitated by ‘one die’ (i.e. one moneyer) yielded £4. 1s. 1d. profit. This documentary evidence for the continued activity of the Durham mint is confirmed by the existence of Durham pence attributable to class Vc (which was probably first issued in 1208) and to class VIi.ii.

The class Vc coins of Durham that I have located were produced from seven obverse dies (DU563–DU588) and seven reverse dies (du563–du588). Four of these dies (Du563, Du566, du563, du566) constitute a die-linked set comparable with those noted for class Vb, and two further pairs (DU573/du573, DU576/du576) may represent another set of four dies although they have not been found die-linked. However, the six remaining dies constitute a set of a different size in which one reverse die (du585)
has been used with all three obverse dies, another (du588) with two obverse dies, and the third (du582) with one of them. This set of six dies was probably supplied after the other class Vc dies since the class VIa1i coins of Durham that I have studied were struck from another set of six dies (DU612-DU618, du612-du618). In this latter set two of the reverse dies (du615, du618) were used with different combinations of two obverse dies.

There is a gap in the issues of the Durham mint between the coins of class VIa1i and others of class VIIa. Some or all of the class VIa1i dies could have been used while dies of later varieties of class VI were being supplied to other mints. However, I consider that the Durham mint was probably closed for a period ending at some time after the introduction of class VIIa dies, which were probably being used elsewhere in December 1217.57

A writ issued before Michaelmas 1218 required the Archbishop of York to receive the oaths of the Bishop of Durham’s moneyer and die keeper and to notify the names of these officials to the Exchequer.58 This seems to imply that Bishop Richard Marsh, who received the temporalities of the bishopric in July 1217,59 was being allowed to reopen the Durham mint. The dispatch of the new dies that might be needed for such a reopening was recorded in conjunction with a reference to the writ. On 22 June 1218 ‘three cunei’ were dispatched from the Exchequer to Durham in the care

57 Ian Stewart, in this volume, p. 33.
58 *Lord Treasurer’s Remembrancer’s Memoranda Roll,* 2 Henry III (1218), m. 1d. An obligation to have such oaths accepted, and to keep them, could have facilitated royal supervision of the episcopal mint. Royal control of the supply of dies might have had a supplementary potential effect.
59 *Patent Rolls* 1216-1225, p. 76.
of Peter Sagarnium, Nicholas of Hadham, and William of Berneres. If the Durham exchange relied upon the products of the Durham dies it had probably not been open on 21 February 1218, when letters patent were issued giving William Marshall junior the king's share of certain privileges in it and other exchanges.

The output of the reopened mint is represented by pence from two obverse dies (DU713, DU716) and three reverse dies (du712-du718) which all belong to the early phase 4 class VIIa that Dr. Stewart has called the Durham type. These obverse and reverse dies may all have been part of the 'three cunei' sent to Durham, which could have constituted three pairs of dies comparable with the postulated sets of six dies of class Ve and class Vlaii. If this was so, either a third obverse die was supplied but not used or the products of such a die remain to be discovered.

Durham pence of class VIIa, like some of the coins of class Vlaii, are approximately 17 mm. in diameter and often exhibit raised rims. The distinctive appearance of these coins may be consistent with the use of a hollow cylindrical punch to cut uniform round coins out of angular struck flans.

There are no Durham Short Cross pence later than those attributable to class VIIa. The mint may have closed in or before 1222, since its officials were omitted from lists compiled in 1221 or 1222.

Finally, I would like to acknowledge my debt of gratitude to the institutions and individuals listed in Appendix A for allowing me to study their Short Cross coins of Carlisle and Durham. This list also serves as a meagre acknowledgement of the provision of material for illustration.

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60 Lord Treasurer's Remembrancer's Memoranda Roll, 2 Henry III (1218), m. 1d. W. C. Wells (NC 1932, p. 229) thought that Peter Sagarnium was the Durham moneyer 'Pieres', but I am not aware of any other evidence for this.

61 Enrolments of these letters patent are quoted by L. A. Lawrence, BNJ xi (1915), 72.

62 Ian Stewart, in this volume, p. 35.

63 The use of such 'pastry cutter' punches was postulated by D. G. Sellwood, BNJ xxxi (1962), 61-3.

64 Lord Treasurer's Remembrancer's Memoranda Roll, 6 Henry III (1222), m. 2d., m. 3d., m. 4d.
APPENDIX A

SOURCES OF COINS AND ILLUSTRATIONS

Source

American Numismatic Society
Ashmolean Museum, Oxford
Bibliothèque Nationale, Cabinet des Medailles
C. E. Blunt, Esq.
J. D. Brand, Esq.

British Museum, Department of Coins and Medals

I. R. Buck, Esq.
City Museum, Leeds
City Museums and Art Gallery, Birmingham
Colechester and Essex Museum
A. Dawson, Esq.
Durham Cathedral, Dean and Chapter
Durham University Library
Fitzwilliam Museum, Cambridge
T. H. Gardner, Esq.
G. P. Gittoes, Esq.
D. Greenhalgh, Esq.
Grosvenor Museum, Chester
F. Elmore-Jones, Esq.
Koninklijk Penningkabinet, The Hague
The late L. C. Lockett, Esq.
Maidstone Museums and Art Gallery
C. J. Martin (Coins) Ltd.

Merseyside County Museums, Liverpool
National Museum of Ireland
Nationalmuseet, Copenhagen
J. J. North, Esq.
Royal Mint Museum
B. A. Seaby Ltd.
W. Slayter, Esq.
B. H. I. H. Stewart, Esq.
Dr. I. Taylor
Tyne and Wear County Council Museums (Sunderland Museum)
P. Woodhead, Esq.
Yorkshire Museum, York

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STEWART: SHORT CROSS
ALLEN: SHORT CROSS