THE 'COCK BRONZES' AND OTHER RELATED IRON AGE BRONZE COINS FOUND PREDOMINALLY IN WEST SUSSEX AND HAMPSHIRE

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Introduction

In 1992 Burnett published a group of bronze coins, many of which had been found in the vicinity of Chichester in the previous few years, although coins of this type had originally been published by Evans, firstly in 1858 from an example found in ‘the neighbourhood of Biggleswade’ and secondly in 1864 from a specimen found at Baldock, Hertfordshire. These coins feature a ‘Helmeted’ head on the obverse and a ‘Head surmounted by a stylised cock’ on the reverse. The recorded provenances of the coins, where known to him, were all British, so Burnett attributed their production and use to Iron Age Britain.

Since the publication of Burnett’s article, many additional coins of this type have been recorded, most of which have also been found in the area around Chichester (particularly from a site on the Westhampnett by-pass), further supporting Burnett’s British attribution (Fig. 1). In

Fig. 1. The provenances of the ‘cock bronzes’.

1 The following is an expanded version of a paper given to the Celtic Coin Study Group on 11 December 1998, at the Institute of Archaeology, Oxford.
addition to these 'cock bronzes', several coins of a subsidiary variety which has a 'horse' as its reverse type, a variety which was also noted by Burnett in his review, have been discovered in the same area (Fig 2).

Fig. 2. The provenances of the 'horse' variant bronzes.

Problems associated with the Study of British Iron Age Bronze Coins and the Methodology Used

Burnett pointed out that 'A number of die links have been noted, suggesting that the issue was not particularly large. The very poor condition of the coins, however, precludes a systematic die study.' However, putting Burnett's comment about the coins' state of preservation into context, the condition of these coins is very similar to (possibly even somewhat better than) that of the vast majority of bronze or copper Iron Age coins which have been found in Britain. This has made the study of the dies from which the various issues of base metal coins of the British Iron Age were struck extremely difficult.

Most ancient base metal coinages appear to have represented low or token values and to have functioned as small change. Prior to being lost or concealed, many such coins were subjected to heavy circulation wear, and unless they were hoarded or experienced exceptional ground condi-

5 Burnett, as in n. 2, Nos. H1 and H2.
6 Burnett, as in n. 2, 342, footnote 3.
7 The condition of most Iron Age coins in museums or recorded in the Celtic Coin Index at the Institute of Archaeology, Oxford, creates a false impression of the average condition in which Iron Age bronze coins are found. In both cases, a high degree of selectivity has taken place either in the choice of coins that enter museum collections or as a result of the inability of the average finder to identify poorly preserved coins and deem them worthy of reporting to the Celtic Coin Index.
8 As is the case with most modern base metal coinages. Note, however, that there are both 'modern' and ancient base metal coinages that are exceptions to this general rule, e.g. the 'cartwheel' issues of Matthew Buxton of the Soho Mint or plate money of Sweden, the face values of which corresponded to their intrinsic value in copper, or the Aes Rude and Aes Grave issues of early Rome, the values of both of which would appear to have been equivalent to the intrinsic value of the bronze from which they were produced.
9 Many Roman base metal coins that were deposited in hoards survive in far better condition than do at single coin finds, owing to the coins in the centre of a hoard being partially protected when the oxygen necessary for corrosion to proceed is scavenged from around them as a result of sacrificial corrosion of the outermost coins in the hoard.
tions leading to the formation of a smooth, continuous patina, chemical attack of the base metal from which they were struck is likely to have further degraded their surfaces while they were buried. Consequently, a high proportion of the extant specimens of ancient base metal coins of types that do not appear to have been hoarded have surfaces that are heavily worn or corroded. When such coins are photographed, scoring, rough corrosion products or variability in the colour and surface appearance of the patina, along with differences in intensity and direction of the illumination relative to the coins, often obscures details of the designs. This can present serious difficulties in the study of scarce types if key coins are not now available for study. In order to minimise such problems the following procedure was adopted:

First hand access to coins struck from different dies and die pairings was considered to be essential, so as many of these coins as possible were located and assembled for study. Die reconstructions were then created using × 8 photocopies of photographs of the coins. After a detailed comparison between the photographic/photocopy images and coins struck from relevant dies, where these were available, the design features were outlined on the photocopies. These outlines were then traced onto paper. Many of the coins are heavily patinated, corroded or were struck from worn or blocked dies, and variation in the lighting used to photograph them has resulted in apparent differences in the position of the edges of the same feature on coins struck from the same dies. Lines outlining design features on the die reconstructions therefore depict an ‘average’ edge for each feature.

Considerable variability was found in the relative position of design details on different dies. Consequently, unless the faces of coins were very heavily worn or corroded, identification of the dies used to strike them was found to be relatively straightforward and could be determined in a high percentage of cases. On several poorly preserved/poorly recorded coins, features that are only partially visible indicate that they were struck from otherwise unrecorded dies. Details of the reconstructions of these dies are inevitably less accurate than would be desirable and may require further work if and when better specimens of coins struck from these dies are discovered.

To date, fifty-five ‘cock bronzes’ have been recorded (possibly fifty-four if, as Allen suspected, numbers 2 and 3 listed by Burnett are the same coin). There are thus 110 die impressions on these coins to be identified against the dies that produced them. Of the fifty-five recorded coins, five have not been seen either at first hand or in some form of reproduction, reducing the number of die impressions that could be identified to 100, of which ninety-six have been identified with greater than fifty per cent confidence, whilst ninety-two of the 100 have been identified with complete confidence.

Six of the ‘horse’ variety bronzes have been recorded, of which eleven of the possible die impressions have been identified with complete confidence (92 per cent).

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10 A large number of the bronze or copper coins of Cunobelin and Tasciovanus that were excavated from undisturbed contexts at Harlow temple are in an excellent state of preservation, although the condition of similar types of bronze or copper coins from more disturbed contexts, or from somewhat different ground conditions on the same site, is significantly poorer.

11 Thereby confirming their use as small change – people tend to hoard money in the most valuable denominations that are available to them. Although hoards of base metal small change are known, they are the exception rather than the rule. The only Iron Age bronze coins definitely known to have been hoarded in Britain are either the early potin issues from SE England or the struck or cast bronze coinage of the Durotriges. In addition to these types, a single group of bronzes was found at the bottom of a sealed pit during the 1930–9 excavations at Colchester and may also have been a hoard. See C.F.C. Hawkes and M.R. Hull, Camulodunum, First Report on the Excavations at Colchester 1930–1939 (London, 1947) pp. 101 and 140.

12 The only available records of several of these coins are half tone reproductions from dealers’ catalogues.

13 At ×8 magnification, any small errors in the position of this outline are relatively insignificant.

14 The relatively high translucency of photocopy paper compared with that of photographic paper greatly facilitates the tracing of design features on a light box.

15 Both dies have been identified with greater than fifty per cent confidence on fifty-four of the sixty-two coins so far recorded (both ‘cock’ and ‘horse’ variants) and with complete confidence on fifty-one of these coins.

16 In particular, obverse die numbers 2, 9, 12 and 3 and reverse die g, j and c', recorded below, will probably require further detailed adjustments to some of the edges of features already recorded when new examples of coins struck from these dies appear. Only photographs of the one recorded coin struck from obverse die 10 and reverse die h were available for study, so it is likely that some modifications will need to be made to the die reconstructions if the coin itself becomes available for study or further examples of coins struck from the same dies appear.
Fig. 3a. TYPE 1 coins; Fig. 3b TYPE 3 coins: Obverse and reverse dies.

Fig. 4. TYPE 2 coins: group 1 obverse and reverse dies.

Fig. 5. TYPE 2 coins: group 2 obverse and reverse dies.
The Die Analysis

Burnett’s review would suggest that, with the exception of the variety with a ‘horse’ on its reverse, the ‘cock bronzes’ form a relatively homogenous issue. However, analysis of the dies that were used to strike the enlarged corpus of specimens now recorded has shown that there are, in fact, three distinct types, although two of these are very rare. Reconstructions of the different dies used to strike each of these types together with those used to strike the ‘horse’ variety are shown in Figs. 3–7 at ×1.4 magnification:

**TYPE 1** (Fig. 3a) is currently represented by just two recorded coins which are reverse die-linked (Fig. 8). Only one of these, which is in rather poor condition, was available to Burnett and published by him (No. 21). The second, a better preserved coin, is illustrated in Fig. 9 at ×2 magnification. These coins differ from the remaining coins illustrated by Burnett in the following key respects:

Although the coin of this type illustrated by Burnett is very worn, careful comparison between its reverse and that of the previously unpublished coin of this type would indicate that, to a very high level of confidence, they were struck from the same reverse die.
The representation of the head on the obverse is of a different style and has its neck flanked by a rosette of pellets to the left and a pellet-in-ring motif to the right.

A broad line extends down in an arc behind the curved lines representing hair on the nape of the neck and has a pattern of similarly shaped arcs of pellets behind it.

The cock on the reverse has a relatively natural appearance, particularly in its legs and head, which has an outlined beak and wattles.

A motif formed from a pellet-in-ring motif nested in the right hand side of a three-lobed device appears behind the cock's legs.

Neither coin exhibits any evidence to indicate whether the edges of either obverse or reverse designs were outlined in any way, although this may be due to the designs being larger than the struck coins and the relative position of the dies on the blanks when they were struck. The existence of two obverse dies with common design features that are significantly different from those on the dies used to strike the rest of this series, plus the differences on the reverse die associated with them, suggests that these coins constitute a distinct variety, rather than being merely a consequence of die cutting variability.

Fig. 8. Die Links recorded for the various bronze issues.

Fig. 9. One of the two recorded TYPE 1 'cock bronzes'.

Photographs of bronze and silver coins from British finds are by courtesy of the Oxford Institute of Archaeology's Celtic Coin Index.
TYPE 2 (Figs. 4–6) This is a large issue of coins struck from a minimum of ten obverse and nine reverse dies. Coins of this type fall into three relatively well defined groups, analysis of which gives an insight into the rate at which they were produced and the extended period over which this might have taken place.

Group 1 (Fig. 4)
A minimum of five obverse and three reverse dies were used to strike the first group of type 2 coins and a high proportion of possible obverse/reverse die combinations has been recorded (Fig. 8). The dies are all competent cut and two coins, struck from the same reverse die (die b), exhibit clear evidence of an attempt to represent feathering on the cock’s neck (Fig 10b). Two distinct obverse variants are known, one of which is represented by only a single die (die 3; Fig. 10a). Key areas of difference between the two obverse varieties are:

The shape of the neck. On die 3 this curves in at the nape as on the group 1 dies (Fig 8a and b), on dies 4–7 there is no incurve at the nape of the neck.

The back of the helmet. On die 3 there is a large oval pellet behind the head enclosed by two beaded arcs and, below it, two concentric circles. On the other group 1 dies the beaded arcs and pellet are replaced with further curved lines, while several short radial lines stretch from the outermost of the two concentric circles to a line which extends round them and terminates at the two pellet-in-ring motifs on the temple.

Fig. 10. TYPE 2 coins struck from the two different group 1 obverse die variants.

Designs on both obverse and reverse dies of this group are enclosed by either a beaded line or a ring of closely spaced pellets (although this cannot be confirmed for die d), the shape of which, where it can be determined, diverges from an accurate circle by no more than the diameter of the pellets used in its construction, suggesting that compasses were used to scratch a circular line on the die and pellets were then punched around it.

Group 2 (Fig. 5)
These coins were struck from one obverse and two reverse dies which are not linked to the coins of group 1, although they are stylistically very similar to them, suggesting that the dies were probably cut by the same craftsman. Note that parts of the reverse design are progressively simplified from the most carefully cut group 1 dies (b and c), through die d to the dies used to strike group 2 coins (e and f) and this may be an indicator of the sequence in which these dies were cut.

Although the evidence is less complete than on group 1 coins, it confirms that the design on the group 3 obverse die was enclosed by either a beaded line or a ring of closely spaced pellets. However, there is no evidence that the design on either of the two reverse dies was outlined in a similar manner (this is the same as for die d and may also be indicative of the cutting sequence).

See Burnett, as in n. 2, photograph 340 and No. 17.

The feathering is not very clear on photographs, but can be seen on the coins themselves.
Group 3 (Fig. 6)

Five coins of this group are known, struck from four pairs of dies, none of which link with any other die pair of the group (Fig. 8). Individual dies from which these coins were struck are stylistically different from and, in most cases, less competently cut than the dies used to strike group 1 and 2 coins. In addition, they differ from them in a variety of design details (e.g., differences in the shape of the cock’s head or the human head below the cock). Evidence of at least two new hands, possibly three, can be detected in the cutting of the designs on these dies, one of which (die j) is laterally inverted.

Only two group 3 coins show any evidence of a beaded ring surrounding the design on either of the dies from which they were struck and in both cases this is on the obverse (dies 11 and 12). Although it has not yet been possible to extend reconstructions of the reverse dies from which the coins of this group were struck to all the edges of the designs they bore (where a beaded circle may have existed), one of the coins struck from reverse die g does have a significant area of its flan extending to the left of the cock’s tail and the circular motif below it, while the flan of the coin struck from die h extends well to the right of the motif in front of the cock. Nevertheless, no evidence of encircling lines can be seen on these coins, suggesting that none were present on the dies. However, it should be noted that, when several of the coins struck from reverse dies d–f are viewed under low angle illumination, the surface of the flan which is outside the design can be seen to be raised in the form of a low circular ridge which exhibits no evidence of any surface structure. Usually this ridge is visible for only part of its circumference owing to the position of the design on the flan. The ridge is particularly noticeable on Burnett’s coins No. 3, 13 and 28 where, in places, it is between 1 and 2 mm high. It is probable that this ridge records the edge of the die and that the ring of pellets that encircles the design on reverse dies b and c is omitted from the other Type 2 reverse dies.

TYPE 3 (Fig. 3b) is represented by a single coin found near Chichester. Although the coin is superficially similar to the rest of the ‘cock bronzes’, the style and details of its obverse and reverse designs differ significantly from them. At this stage, it cannot be confirmed that the coin is British. Nevertheless, it has a British provenance and no coin of an identical type with a continental findspot has yet been located, so it is likely that the coin was produced in Britain and, accordingly, it has been included in the die study for completeness.

The presence of beaded circles surrounding both obverse and reverse designs on this coin can clearly be seen.

TYPE 4 (Fig. 7) In addition to the coins listed above, there are several bronze coins which, although they were found in the same area as the ‘cock bronzes’ do not feature a head surmounted by a cock as their reverse type. However, they are a well-defined group and, as Burnett pointed out, are clearly related to the ‘cock bronzes’ by the similarity of their obverse type (Figs. 7.1’ and 11a) to the one that appears on Types 1 and 2 above, although there are several key differences between the two obverse designs:

The top of the head on Type 4 coins is represented by a series of wavy lines that closely resemble hair.

The smooth line that encloses the concentric circles behind the head on Type 2 coins is replaced by a line of pellets or beaded line.

Pellet-in-ring motifs that appear on Type 2 coins are reduced in number and, in some cases, replaced by annulets.

A second curved line is added below the nose on Type 4 coins (Fig. 11a) possibly representing a moustache.

The design on the reverse of Type 4 coins depicts a quadruped with its head turned back over its body and a flamboyant mane. The areas on the die around the animal are filled with pellet-in-ring motifs and ‘strings of beads’, each of which is produced from a row of pellets linked by a line. Burnett suggested that this animal was possibly intended to represent a ‘horse’ and the hoof-like
shape of the animal's feet on one excellently preserved example of this type would certainly support this view (Fig. 11b). To date, only six coins of this variety have been recorded (two of which were published by Burnett)\(^2\) and these were struck from at least four obverse and four reverse dies (Fig. 7).\(^2\)

On three obverse and two reverse dies, there is evidence that the designs were enclosed by beaded lines or rings of closely set pellets, suggesting that this was the norm for the dies from which this issue was struck.

**Discussion**

Burnett suggested that 'The cock with a human head on the bronze is derived from a bronze produced in northern Gaul and attributed to the Bellovaci'.\(^2\) Several features on Type 1 coins appear to confirm that this type was their model, rather than any of the other Gaulish bronzes bearing representations of cocks that Burnett listed. In particular, Type 1 coins feature a naturalistic cock which has a loop terminating the end of its lower tail feather and a row of pellets representing a second feather adjacent to it (Fig. 3 die a). These features are similar in appearance firstly to two feathers which curve together in an identical position to the loop and secondly to an adjacent row of pellets, both of which appear on the coin that Burnett cites as the most likely model for these bronzes (Fig 12a), but which are not seen on any of the other northern Gaulish bronzes. Coins of Types 1 to 3 also feature a similar row of pellets, although they exhibit some of the characteristics (particularly in the stylisation of cock and head below it) that appear on a different Gaulish type\(^2\) from the one on which group 1 appears to be modelled (Fig. 12b). However, it is possible that Types 1 and 2 may have been derived from both of the Gaulish types cited above.

Burnett also suggested that the obverse of these coins was ultimately derived '— from the head of Roma on Roman denarii' and the correspondence between the obverse type of the 'cock bronzes' and the head of Roma on some Republican denarii is, indeed, quite close (Fig. 13a). The three parallel lines that represent the peak on Roma's helmet appear in an equivalent position across the forehead on the 'cock bronze' obverse, while a pellet-ended curl at the left hand end of the peak and second pellet-ended curl that terminates the outline of the helmet bowl next to it are transformed into two pellet-in-ring motifs, from which extends a pattern that clearly has its origin in the wing on Roma's helmet.\(^2\) Although the obverse of the Gaulish bronze on which 'cock bronze' reverses seems to be modelled appears to be derived from the head of Roma on such a

\(^{21}\) See Burnett, as in n. 2, Nos. H1 and H2.

\(^{22}\) The obverse of one of the coins, H5, is so badly corroded that, although it can be confirmed that an obverse die similar to those used to strike the rest of this group was employed, the details of the design that it bore cannot be determined.

\(^{23}\) The type to which he refers is S. Scheers, *Traité de Numismatique Celtique II: La Gaule Belgique* (Paris, 1977), pp. 583-4, type H1. Plate XVII 461.

\(^{24}\) See Scheers, as in n. 23, pp. 581-3, type 121. Plate XVII 474-475.

\(^{25}\) E.g. the head of Roma on some of the denarii of C. Aulus, which were struck in c.209-208 BC (see M. Crawford, *Roman Republican Coinage*, I and II (Cambridge, 1974), No. 75/1a), is particularly close to the 'cock bronze' obverse, although many other Republican denarius obverse types are somewhat similar.
denarius, it is sufficiently far removed from it for us to be reasonably certain that it was not itself the model for the obverse of the 'cock bronzes'. Whether it was the obverse of a Roman denarius, a Gaulish copy of such a denarius (Fig. 13b) or one of the other Gaulish types derived from these denarii (Fig. 13c) that was to provide the model for the 'cock bronze' obverse is not known. However, several inscribed British Iron Age coins are closely modelled on Roman Republican denarius types, so it is certain that a range of these coins (or their copies) were present in Britain at some stage between the beginning of the last quarter of the first century BC and the end of the first quarter of the first century AD, although they may have been imported much earlier than this. Alternatively, a range of copies and derivatives of these denarii was circulating in northern Gaul and one of these derivative types could equally well have provided a model for the obverse of the 'cock bronzes'.

The differences between Types 1 and 2 of the 'cock bronzes' are sufficient for us to question whether they might have been produced by separate pagi from the Chichester area or, alternatively, whether there was a sufficiently long break in production between Type 1 and the remaining 'cock bronze' output to have resulted in both obverse and reverse dies being cut by a different craftsman. Whatever the case, the Type 1 issue would appear to have been somewhat limited in scope.

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27 Although, as pointed out by Colin Haselgrove in 'The Development of British Iron-Age Coinage', NC 153 (1993), 45 footnote 37, '... not a single example of a pre-Conquest Roman silver coin import is known from a securely stratified Iron-Age context'. Nevertheless, the distribution of hoards of Roman Republican denarii by period shows that during the first quarter of the first century BC it is likely that Roman silver coinage was becoming available to the tribes in southern Gaul (see R. Reece, 'Roman monetary impact on the Celtic world – thoughts and problems'. Coinage and Society in Britain and Gaul: Some Current Problems, edited by B. Cunliffe (London, 1981), p. 26, Fig. 10), from whence it could rapidly have entered Britain through trade, for as Reece pointed out '... while the presence of the army may mean the presence of denarii, denarii travel into the Celtic world for many different reasons beyond military campaigns'.

28 There seems to be no compelling evidence for significant working of silver deposits in Britain prior to the Claudian invasion. The one recorded coppelation hearth, which was excavated at Hengistbury Head, could not be confirmed as having been used for primary silver extraction and could equally well have been used for the secondary recovery and recycling of silver from scrap. See B. Cunliffe, Hengistbury Head Dorset, Volume 1. The Prehistoric and Roman Settlement, 3500 BC–AD 50 (Oxford, 1987) p. 194. Since lead is a major by-product of primary silver extraction, we might expect to see large quantities of lead artefacts on Late Pre-Roman Iron Age sites if silver was being extracted on a significant scale. Their relative rarity would argue that the silver that appears in some quantity in the Snettisham torcs (see I.M. Stead, 'The Snettisham Treasure: Excavations in 1990', Antiquity 65, 445–4.) and later in the Iron Age coinages of Britain was imported as bullion from the continent, possibly in the form of Roman Republican denarii (something that the purity of the silver in both the early Iron Age coinages of the Atrebates and Roman denarii would support – see J.P. Northover, 'Materials Issues in Celtic Coinage' in Celtic Coinage: Britain and Beyond, edited by M. Mays (BAR British Series 222, Oxford, 1992), p. 256, Figure 10, and D.R. Walker, The Metrology of the Roman Silver Coinage, 1 (BAR Supplementary Series 5. Oxford, 1976) p. 5, plus Figures 1–3). Photographs of Gaulish coins are by courtesy of Simone Scheers.
By contrast, the first group of Type 2 coins, struck from at least five obverse and three reverse dies, with evidence of extensive linkage, must have represented a much greater output from the mint. The pattern of die linking indicates that at least three pairs of dies were in use concurrently, with a die box being used for overnight storage. Dies 3 and 4, which are linked to all three reverse dies, were probably two of the obverse dies initially put into use, along with either die 5 or die 6. As obverse dies wore out or were damaged, they would appear to have been augmented firstly by whichever of dies 5 and 6 was not originally in use and, finally, by die 7. Die 3, although differing in design from the other obverse dies of this and subsequent groups of 'cock bronzes', is stylistically quite similar to them, although more carefully cut. If this was the first group 2 die cut, its design could be a link with the obverse design on Type 1 (reflected in the shape of the neck and the beaded lines seen on the back of the head). In this scenario, die 3 may have been put into use with one of its associated reverse dies (possibly die b, which is very finely cut and exhibits feathering on the cock's neck). It may then have been realised that the volume of coinage required from the mint could not be achieved with one pair of dies, and additional obverse dies of somewhat differing design and care in execution may then have been hurriedly produced, together with associated reverse dies, to enable output to be increased. Unfortunately, however attractive this explanation may appear, it has so far proved impossible to determine whether die 3 was the first to be cut or whether its design was merely the consequence of idiosyncratic behaviour by the die cutter. Alternatively, the differences seen between die 3 and all other 'cock bronze' obverse dies of groups 1–3 may be due to some other circumstance about which we have no knowledge. However, the most interesting aspect of this group of coins is the concurrent use of three pairs of dies in their production. This would suggest that, at the time that these coins were being struck, there was a pressing need for significant quantities of coin that could not be met by the sequential use of paired dies.

There would appear to have been a pause in the mint’s output once group 1 coins had been produced. Otherwise, when group 2 dies were put into use (obverse die 8 and, initially, one of the two reverse dies, e and f), we might have expected them to be managed in the same way as those of group 1 (with the concurrent use of up to three obverse coining anvils and associated die-box for reverse die storage). If this had taken place, then the replacement of one of the group 1 obverse dies by die 8 would almost certainly have resulted in at least one die linkage between groups 1 and 2. Similarly, the storage of one of dies e and f in the die box would have yielded the same result, something that has yet to be recorded. Episodic production of Iron Age coins has long been sus-

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30 Photographs courtesy of Italo Vecchi.
31 The relatively high ratio of obverse to reverse dies may be indicative of poor mechanical support of the obverse dies while coins were being struck.
32 The simultaneous wearing out of both obverse and reverse dies of group 2, necessitating their replacement by dies 8 and either e or f is exceedingly unlikely. However, it is possible that the rate of production slowed down dramatically towards the end of group 1 output, leaving only one pair of dies in use. In this case it is probable (but not necessary) that each die of the remaining pair would have been replaced as it wore out (as appears to have occurred before), resulting in a die link between groups 1 and 2.
pected and it is probable that this is recorded in the die structure of the ‘cock bronzes’. By comparison with the output of group 1, the rate at which group 2 coins could have been produced will have been significantly lower, with only one obverse die now in use, suggesting that the pressure to mint large quantities of coin was now much reduced. Nevertheless, group 2 dies are similar in style to those of group 1, were probably cut by the same individual who was responsible for them and are likely to have been produced within a relatively short period of the end of group 1 output.

Comparison between the coins of groups 1 and 2 and those of group 3 reveals significant differences both in style and in the details of both obverse and reverse designs. Dies used to strike the five recorded coins of group 3 appear to have been cut by several different hands, and obverse and reverse dies are strictly paired. If these coins were produced by the same people who produced groups 1 and 2, it is likely that the production of ‘cock bronzes’ had now been reduced to a relative trickle, with different (and in some cases less competent) craftsmen being tasked with the production of new pairs of dies. It is also likely that the production of the dies used to strike group 3 coins took place over a longer period of time than that required to produce the dies used to strike groups 1 and 2; otherwise we would not have expected to see evidence of more than one additional hand involved in their creation.

As noted above, the Type 3 bronze coin is stylistically very different from the rest of the cock bronzes and its reverse appears to have taken a different Gaulish coin as its model. The Gaulish bronzes that it most closely resembles are two additional types (Fig. 15)\(^3\) which, on the basis of their provenances, would appear to have circulated in a region similar to or near that in which the putative models for the ‘cock bronze’ coinage circulated. Features on the reverse of these coins which are similar to the Type 3 coin, but differ from those on the bronzes that provided models for Types 1 and 2, are:

*The treatment of the cock, which is much less stylised than it is on the other Gaulish bronzes and is free standing, rather than being mounted on a human head.*

\(^3\) See Schears, as in n. 23, pp. 574-5, type 107, Plate XVI.450 or pp. 581-3, type 110, Plate XVI.459.460. For a coin of the second type found in Britain see Coin Register in BNJ 62 (1992), 204 No. 18 plus Plate 25.18.
The scroll which sits in front of the bird in addition to the normal ring located in the centre of a sinuous line.
The pattern of lines and rosette of pellets under the bird, which replace the human head.

Although the obverse of the Type 3 coin is superficially similar to the design on the rest of the 'cock bronze' series, it is more heavily cut and much of the detail that appears on Types 1 and 2 has either been greatly simplified or is missing. Nevertheless, the obverse still appears to have been derived either directly or indirectly from a coin similar to the one on which the 'cock bronzes' were modelled (possibly even from the 'cock bronzes' themselves).

It is not known whether the six recorded bronze coins of Type 4, which have a 'horse' depicted on their reverse, were minted by the same people responsible for the production of the 'cock bronzes', although no significant difference can be detected between their respective distributions (Figs. 1 and 2). Stylistic differences between their obverse type and that of Types 1 and 2 would suggest that the 'horse' variety dies were cut by a different hand from that responsible for any of the 'cock bronze' dies. Unlike the 'cock', the 'horse' does not appear to be derived from any of the northern Gaulish bronzes that might have been available when the dies were cut, although there is no fundamental reason why an indigenous design should not appear on these coins. Three of the coins are die-linked and this, when taken with the number of dies recorded, would suggest that the volume of coinage that they represent was somewhat smaller than that of the 'cock bronzes'.

However, it would still have been significant in comparison with that of most of the early silver issues that are recorded as having been minted in this region.

The arguments that Burnett offered as support for his proposition that the 'cock bronzes' were produced some time in the mid or late first century BC still seem reasonable, notwithstanding the fact that it is doubtful whether the silver minims that he used as an indicator of date can be attributed to Caesar's COMMIOS. Nevertheless, the absence of any form of a legend, and the fantastic forms of the designs these coins bear, are characteristic of the earliest period of coinage in Britain.

34 An estimate of the number of dies used to strike these coins can be made using formulae developed by several researchers. See, for example, W.W. Esty, 'Estimation of the size of a coinage: a survey and comparison of methods', NC 136 (1986), 185–215; and S. Lyon, 'Die Estimation: Some experiments with simulated samples of a coinage', BJ 59 (1989), 1–12. Using Lyon's first formula, an estimated thirteen to fourteen obverse and eleven to twelve reverse dies were used to strike the 'cock bronzes', whilst eight obverse and eight reverse dies are indicated for the 'horse' variety. If these numbers can be believed, then the low number of surviving 'horse' bronzes (six) compared with the survival rate of 'cock' bronzes (fifty-five), might seem surprising, although it is similar to that of the Type 2 group 3 coins, suggesting that the relatively large losses of Type 2 'cock' bronzes of groups 1 and 2 (particularly of group 1) are associated with a specific set of economic conditions or some particularly intensive activity involving their use (probably the same conditions/activities that originally created the need for their rapid production). Conversely, the 'horse' coins may have been produced during the same period that saw the production of Type 2 group 3 coins, when a reduced intensity in the usage and/or changed economic conditions could have resulted in the lower loss rates that are recorded as finds.

35 See S.C. Bean. The Coinage of the Atrebates and Regni. PhD thesis. University of Nottingham (1994). p. 92, Fig. 2.8: p. 184, Fig. 3.27: p. 186, Fig. 3.28: p. 190, Fig. 3.29: p. 193, Fig. 3.30: p. 195, Fig. 3.31: p. 197, Fig. 3.32. It is important to note that none of these silver issues shows any evidence of extensive die linkage, suggesting that the circumstances leading to the production of bronze coins differed markedly from those that led to precious metal coinage in this region.

36 Sills has made a very convincing case, based on British A Staters only being associated with the hoards of Gallo-Belgic E staters found in Britain when the last type of these staters is present, that British gold coinage only commenced around 45 BC (unpublished paper read at a Celtic Coin Study day at the Institute of Archaeology, Oxford, 11 December 1998). However, it is generally accepted that the point coinage of Kent significantly precedes the indigenous struck coinage of gold and there is no fundamental reason why a mid first century BC date for the production of the 'cock bronzes' would be untenable.

37 See D.F. Allen. The Belgic Dynasties of Britain and their coins, Archaeologia, 90, 4–5, where he points out that the chieftain Verica, who styles himself REX and COM.M.F on his coins, would appear to be that same person (Berikos) whom we see petitioning Rome for support in AD 43 (noted in Dio Cassius, Roman History. LX. 19.1). For the Commios of the coins to the person who appears in Caesar's narrative, 'Verica must have been a son of Commius' old age, and must himself have lived to well over sixty'. However, the patronymic formula does not necessarily mean that Verica was the natural son of Commius, merely that he was acknowledging some form of relationship with him, possibly to establish legitimacy of rule – see also Caesar's comments about kinship DBG. v. 14. Nevertheless, S.C. Bean, as in n. 34, pp. 241–3, notes that the Commios whose name appears on the reverse of several early gold staters of the Atrebates is unlikely to have been the same person as Caesar's Commius, since one of the stater variants which carries this name (R. Hobbs, British Iron Age Coins in the British Museum (London. 1996) p. 85. No. 728 and Plate 27.728) also features the additional letters COM above the 'horse' which appears on its reverse, suggesting that the Commios of this stater was acknowledging some form of kinship with another person of the same name, possibly in this case the Commios of Caesar (contra R.D. Van Arsdel. 'Muddying the Atrebatic Waters', NC 104 (December, 1996) 444). Bean suggests a date of c. 30 BC for the coins which are inscribed COMMIOS but, if we are to accept Sills' proposition that the uninscribed coinage of Britain commenced around the end of the Gallic wars (see note 35), then this date would seem to be a little early and one closer to c. 10 BC would be more likely. Nevertheless, it would appear the production of silver minims predates the inscribed coinage of the Atrebates and Regni by some

(Note continues overleaf)
Burnett quoted a suggestion by Colin Haselgrove that the group of 'thin silver' coins (Fig. 16, VA 1280, Mack 321) found in the vicinity of Chichester might be associated with the 'cock bronze' series. However, at the time this suggestion was made, there were no records of 'thin silver' and 'cock bronze' coins being found on the same sites and, quite apart from this, there appeared to be little similarity in the cutting style between the two groups of coins. Consequently, it seemed that there was little evidence to support such an association. Recently, the situation has changed and the reverse type on a new and better preserved example of a Type 4 coin (Fig. 11, c and d) can be seen to exhibit several close similarities to the reverse on the 'thin silver' coins illustrated in Fig. 16. In particular, both designs were produced to a strictly two-dimensional format, while the body of the 'horse' on the bronzes (in particular, its rump and the way in which the hind legs join it) has a very similar shape to that on some of the 'thin silver' coins. Furthermore, the reverse images on both types are created from a series of either smoothly curving lines or 'strings of beads', while ring or pellet-in-ring motifs fill any empty spaces in the designs. Having noted the absence of any hard evidence to connect the 'cock bronzes' with the 'thin silver' types, Burnett went on to publish a further series of silver coins that had been found on the same sites where 'cock bronzes' had been discovered and suggested that these might be related to the 'cock bronzes'. Subsequently, additional finds of these silver coins have been made on other sites where 'cock bronzes' are absent, so what had possibly been a correspondence between the two types now seems much less clear. Nevertheless, the silver coins published by Burnett are believed to have been issued at an early stage of coin usage in southern Britain so, although they may not be directly related to the 'cock bronzes', their association with them on sites such as the Westhampnett and Chichester, which has produced a restricted range of early silver, may also be a positive indicator of an early date for the production of the bronze coinage.

Fig. 16. Two of the 'thin silver' coins from the West Sussex/Hampshire area.

(Note 37 continued)

little while since, although various uninscribed minim types have been recorded (see S.C. Bean, as in n. 34, 478–9; 480–4), some of which were found in the Ashdown Forest hoard along with type-linked silver units and early Kentish quarter-staters (see J. Evans, The Coins of the Ancient Britons (London, 1864) p. 92), the only early uninscribed silver coins that were found at Wanborough (where minim conserved 112 out of 975 coins or something over ten per cent of the excavated portion of the deposit) are of a single typologically later issue of full units (see C. Cheesman, 'The Coins' in M.G. O'Connell and J. Bird, The Roman temple at Wanborough, excavation 1985–1986, Surrey Archaeological Collections, 83 (1994) 37).

38 See A. Burnett, as in n. 2, p. 342 Nos. 1–6 and S.C. Bean, as in n. 34, p. 466. No. Q1–1 and Plate V.

39 A coin of this type was found at the Hayling Island temple site (see D. Briggs, C. Haselgrove & C. King, 'Iron Age and Roman coins from the Hayling Island temple', BNJ 62 (1990) 7. No. 16 and Plate 1.16) along with six of the 'thin silver' coins and another silver unit (see D. Briggs et al. as in n. 34, 8. Plate 1.17 and S.C. Bean, as in n. 34, 467–8. No. Q1–1 and Plate V) of a type that has also been found in association with 'cock bronzes' on the Westhampnett by-pass site near Chichester.

40 See S.C. Bean, as in n. 34, 228–30.

41 The Le Catillon hoard from Jersey contained three of the 'thin silver' coins together with an example of a second silver type that has been found in association with 'cock bronzes' (see note 40), D.F. Allen, 'The Origins of Coinage in Britain: A Reappraisal' in Problems of the Iron Age in Southern Britain, edited by S.S. Frere (London, 1960) Appendix IV, pp. 297–301 and Plate XIII Nos. 16–18 and 20. Although it was originally thought that the hoard had been buried between 56 and 31 BC as a consequence of the Gallic wars, more recently there has been much debate over its deposition, with a consensus favouring an earlier date. The various arguments are summarised by C. Haselgrove in Iron Age Coinage in South-East England The Archaeological Context (Oxford, 1987), pp. 319–21, where it is suggested that a date soon after the Gallic war would be more likely, although nothing associated with the hoard requires its deposition date to be more precise than mid/late first century AD.

42 The coins illustrated were found during excavations of the Romano-British temple on Hayling Island. See D. Briggs et al. as in n. 34, coin nos. 1 and 3 plus Plate 1.1,3.
The number of coins that could be struck from a single die has occasioned much debate, and it has even been suggested that any attempt to estimate such a number is a meaningless exercise. Nevertheless, it would not be unreasonable to attempt to estimate the output of the recorded die population based on a conjectured ‘average life’ of an obverse die, if only to get some idea of the likely scale of this coinage. Taking a figure of 10,000 coins as the potential life of an obverse die, this would give an estimate for the output of base metal coins of 200,000, to which estimate we should probably ascribe a lower limit of around 100,000 and an extreme upper limit in the region of half a million. The recorded provenances of ‘cock bronze’ finds suggest that the primary region where these coins were in circulation/usage was largely restricted to a relatively small area around Chichester that extended as far as Winchester. Given that the likely Iron Age population of this area would not have been particularly large, the volume of ‘cock bronzes’ that the various dies represent is relatively enormous and, whatever criteria are used to assess this remarkable output, it is of considerable interest, particularly since the majority of silver issues from the south of Britain during this period were produced using relatively few pairs of dies and, must, therefore, have been commensurately much smaller. The early acceptance of base metal as an appropriate material for the production of coins would seem to suggest that coinage was rapidly being adopted for more than either the storage of wealth or the means whereby largesse could be dispensed or debts repaid. This could possibly have been stimulated by some major change in the relationship between the British population of the Chichester area and the coin-using peoples of continental Europe, who will presumably have been involved in trade with Britain during this period. It is instructive to note what Strabo says about Britain: ‘No corresponding advantages would arise by taking over and holding the country. For at present more seems to accrue from the customs duties on their commerce than direct taxation could supply, if we deduct the cost of maintaining an army to garrison the island and collect the tribute.’ Furthermore they submit to heavy duties on the exports to Gaul, and on the imports from there …’. If this is indicative of the developing relationship with Rome and increasing volume of trade that was taking place, then it is quite conceivable that the British tribe/s in the Hampshire/Sussex area were exacting duties on incoming goods and requiring them to be paid in local base metal coinage, which they were obliging the continental traders to exchange for precious metal coinage at rates very favourable to themselves. If this is, indeed, the reason behind the

43 Even where we have mint records, as with mediaeval England, the number of coins that could be struck from dies of the period has occasioned much discussion (eg see M. Mate, ‘Coin Dies Under Edward I and II’, NC, Series 7, IX (1969), 207–18, or B.H.H. Stewart, ‘Second Thoughts on Mediaeval Die-Output’, NC, Series 7, IV (1964), 293–303). Records of mint activities to the end of the first millennium are almost non-existent and, in order to get some realistic measure of die life, we are dependant either on calculations based on somewhat incomplete information (eg E.I.P. Raven, ‘The Amphictionic Coinage of Delphi’, NC, Series 6, X (1950), 1–22) or on experiments which recreate the processes used to produce the coins of the period. See D.G. Selwood, ‘Some Experiments in Greek Minting Technique’, NC, Series 7, III (1963), 217–31 and plates xxiii–xxv. Unfortunately, Selwood’s experiments are of particular relevance to coins of dimensions and fabric similar to Greek tetradrachms and no work has yet been done to recreate the minting process for base metal coins of the British Iron Age. Nevertheless, we can get some notion of the variability in output that dies might have exhibited from average outputs that can be computed from records of the mints of London and Canterbury in the years 1279–1327 (A. Burnett, Interpreting the Past: Coins (London, 1991), p. 46). Over this period, annual production ranged from an average of c.2,000 to c.78,000 coins per die (and these are averages for die output over particular years, so individual outputs will have been even more variable).


46 A figure of 30,000 coins per obverse die has recently been used to estimate mintage figures. See A. Burnett, ‘Somerton, Suffolk, Treasure Trove’, BNJ 64 (1995), 128, footnote 7.

47 The figure includes both the ‘cock bronze’ and ‘horse’ groups of coins and is based on twelve ‘cock bronze’ and eight ‘horse’ type obverse dies. See note 33. Group 5 has been ignored. These figures should be treated with very great caution and do not in any way purport to be an accurate view of the volume of these issues, but are offered merely as an indication of the size of this coinage.

48 With the exception of the ‘thin silver’ group of coins. These seem to have been minted on something like the same scale as the ‘cock bronzes’. If the number of recorded dies is a good indicator of the scale of their production (see S.C. Bean, as in n. 34, p. 195).

49 Strabo lived from c.44 BC to c.23, although much of what he wrote was derived from Posidonius, who lived from c.135–c.50 BC. Some of the material was out of date when Strabo used it.

50 Strabo, Geography 2.5.8 (115) and 4.5.3 (200). Translation by J.C. Mann and R.G. Penman, Literary Sources for Roman Britain (London, 1978), p. 13.

51 I am grateful to Daphne Nash Briggs for this suggestion.
production of the ‘cock bronzes’, then we should expect that a range of bronze coins that were used by the traders in their home environment would have been brought across the channel with them and become known in Britain. Given Strabo’s comment that ‘There are four crossings in common use from the mainland to the island, those which start from the mouths of rivers – the Rhine, the Seine, the Loire and the Garonne’, it is easy to see how bronze coins of the Bellovaci or Caletes could have travelled down the Seine and across to Britain in traders’ ‘pockets’ and, once there and for whatever reason, some of these coins could have changed hands with the inhabitants who were involved in transactions with these traders. It would then have been only a short step for these Gaulish coins to become models for the different reverse designs on the ‘cock’ bronzes.

The Metal of the ‘Cock Bronzes’

One of the ‘cock bronzes’ found near Chichester early in 1992 (Burnett coin No. 22, recorded but not illustrated) was submitted to the Materials Laboratory of the University of Oxford for analysis of the alloy from which it was struck. The composition of the coin (based on the average of five measurements) was found to be:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Cu</th>
<th>Sn</th>
<th>Sb</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88.29</td>
<td>8.85</td>
<td>1.53</td>
<td>1.33</td>
</tr>
</tbody>
</table>

The coin was thus struck from a high tin bronze containing a small but significant trace of antimony, suggesting that the alloy was probably produced from imported copper. Unfortunately, since we know nothing about how the production of this coinage was controlled, the analysis of a single coin does not prove that all coins of this series had an identical or even similar metallurgy. Nevertheless, the coin’s composition is somewhat similar to that of the cast potins of the lower Thames valley and this may possibly be a further indicator of an early date for the ‘cock bronze’ coinage.

Analysis of the dies from which the ‘cock bronzes’ and associated issues were struck:

Coins which feature a cock on their reverse dies:

<table>
<thead>
<tr>
<th>No.</th>
<th>Obverse</th>
<th>Reverse</th>
<th>Celtic Coin Index</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>c</td>
<td>69.0535</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>g</td>
<td>92.1012</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>—?—</td>
<td>—?—</td>
<td>—</td>
<td>Allen thought this coin was the coin from Baldock which was published by Evans (No. 3 below)</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>b</td>
<td>90.0848</td>
<td>See 2 above</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>d</td>
<td>91.0296</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>b</td>
<td>91.0297</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>—?—</td>
<td>—?—</td>
<td>—</td>
<td>Coin not seen</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>h</td>
<td>84.0529</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>c</td>
<td>90.0828</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>i</td>
<td>92.1013</td>
<td></td>
</tr>
</tbody>
</table>

52 Strabo, as in n. 49, 4, 5, 2 (199).
53 On the evidence of imported pottery, it has been proposed that trading was taking place between the communities of Upper Normandy and the Seine valley and the inhabitants of the Solent shores around the middle of the first century BC. See B. Cunliffe, ‘Relations between Britain and Gaul’ in Cross-Channel Trade between Gaul and Britain in the Pre-Roman Iron Age, edited by S. Macready and F.H. Thompson (London, 1994), p. 9 and p. 18 Fig. 9.
<table>
<thead>
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<th>Date</th>
<th>Coin Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>6</td>
<td>d</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>d</td>
</tr>
<tr>
<td>13</td>
<td>9</td>
<td>g</td>
</tr>
<tr>
<td>14</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>(15)</td>
<td>4</td>
<td>b</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>b</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>c</td>
</tr>
<tr>
<td>19</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>d</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>a</td>
</tr>
<tr>
<td>22</td>
<td>-</td>
<td>d</td>
</tr>
<tr>
<td>23</td>
<td>5</td>
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<td>24</td>
<td>4</td>
<td>d</td>
</tr>
<tr>
<td>25</td>
<td>-?</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>(6)</td>
<td>c</td>
</tr>
<tr>
<td>27</td>
<td>5</td>
<td>d</td>
</tr>
<tr>
<td>28</td>
<td>8</td>
<td>f</td>
</tr>
<tr>
<td>29</td>
<td>12</td>
<td>j</td>
</tr>
</tbody>
</table>

Additional coins not listed by Burnett

<table>
<thead>
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<th>No.</th>
<th>Date</th>
<th>Coin Details</th>
</tr>
</thead>
<tbody>
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<td>30</td>
<td>8</td>
<td>e</td>
</tr>
<tr>
<td>31</td>
<td>-?</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>4</td>
<td>d</td>
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<tr>
<td>33</td>
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<td>c</td>
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<tr>
<td>34</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>35</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>36</td>
<td>3</td>
<td>d</td>
</tr>
<tr>
<td>37</td>
<td>7</td>
<td>d</td>
</tr>
<tr>
<td>38</td>
<td>4</td>
<td>d</td>
</tr>
<tr>
<td>39</td>
<td>3</td>
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<tr>
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<td>43</td>
<td>8</td>
<td>f</td>
</tr>
<tr>
<td>44</td>
<td>-</td>
<td>c</td>
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<tr>
<td>45</td>
<td>(4)</td>
<td>(c)</td>
</tr>
<tr>
<td>46</td>
<td>6</td>
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<td>50</td>
<td>5</td>
<td>b</td>
</tr>
<tr>
<td>51</td>
<td>8</td>
<td>e</td>
</tr>
<tr>
<td>52</td>
<td>1</td>
<td>a</td>
</tr>
<tr>
<td>53</td>
<td>-?</td>
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<tr>
<td>54</td>
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<td>d</td>
</tr>
<tr>
<td>55</td>
<td>3</td>
<td>b</td>
</tr>
</tbody>
</table>

The illustration shown is coin No. 9. The details of the coin listed as No. 15 correspond to the photograph that heads the article.

The obverse is very badly corroded with only traces of the design visible.

Coin not seen

>75% confidence in obv. die identification

Collection C. No weight. Found near Chichester.

2.01 g. Found Worth, Kent. The coin is too corroded for the dies to be identified.

2.06 g. Found near Chichester.

2.28 g. Found Westhampnett by-pass, Chichester.

Collection C. 2.20 g. Found near Chichester.

2.51 g. Found NW Essex.

2.54 g. Found near Wittering, W. Sussex.

Collection B. 2.19 g. Found near Chichester.

Collection C. 1.87 g.

2.05 g. Found near Chichester.

2.36 g. Found near Chichester.

2.4 g.

2.18 g.

No weight. Obverse die not identified due to small flan, poor condition and the record being a half-tine image.

2.11 g. Found near Chichester. Obverse and reverse die identification >50 confidence level only. Coin recorded as a x1 magnification 200 lpi half-tone image.

2.70 g. Found near Chichester.

2.15 g.

1.08 g.

No weight.

2.26 g. Found 2 miles N. of Winchester.

1.85 g. Found Winnall Down near Winchester.

Collection C. No weight.


1.98 g. Excavated find from Bignor Roman Villa.

2.64 g. C. Rudd list 45, no. 44.

55 Personal communication from David Holmes.
Coins which feature a bird on their reverse dies and may be related to the coins which feature a cock in this position:

B1 A α 95.0713 Collection B. 2.16 g. Found near Chichester.

Coins which feature a quadruped ('horse') as their reverse type:

*Coins illustrated by Burnett (1991)*

| H1 | 3' | b' | 90.0831 |
| H2 | 2' | b' | 92.1026 |

*Additional coins not listed by Burnett*

| H3 | 1' | a' | 94.0960 | Collection C. 2.54 g. |
| H4 | 1' | b' | – | Collection C. No weight. |
| H5 | – | c' | – | Collection C. No weight. Found near Winchester. |
| H6 | 4' | d' | 95.0711 | Collection B. 2.53 g. Found near Chichester. |