WHAT IS ICENIAN COINAGE?

by

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A thesis submitted for the degree of

Doctor of Philosophy in Archaeology

Volume 2

Appendices

School of Archaeology, Oxford University

Michaelmas Term, 2015

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Appendix I The die study

The appendix comprises the photographic record of the die-study. Every die found during the study is illustrated, the types of coinage following the order in which they are discussed in chapter 2 and 3. The images have been compiled on Adobe Illustrator at a scale of 1.5:1, but for reproduction in this thesis they have been reduced to 1.2:1.

Obverse dies are identified by a letter and reverse dies by number, those that were found after the closure of the die-study are identified in red, all others are in black. A black line joining an obverse and a reverse die indicates that the two are die-linked; the number of known coins with that die combination is shown next to the line in red. If the die-link only became known after the close of the Access database the line is shown in red. If the die-link is likely but not certain it is shown by a dashed black line. Where only one die can be identified because of the poor condition of the other die this is noted in red next to the identified die by the word ‘poor’ followed by the number of such examples. Brockages are noted in red next to the relevant die.

The numbering and lettering of dies generally follows the estimated chronological order of dies. Where the chronology is unclear this is noted. I published illustrations of the known dies of early Units in 2006, other than for Bury C, the die references from that paper have been retained in this thesis. This has caused the numbering or lettering of subsequently discovered dies to be out of sequence, but they have been entered into the die charts in their appropriate place and they can be readily identified. This affects Bury A, Bury B, LFB, LFC and the Snettisham Unit.

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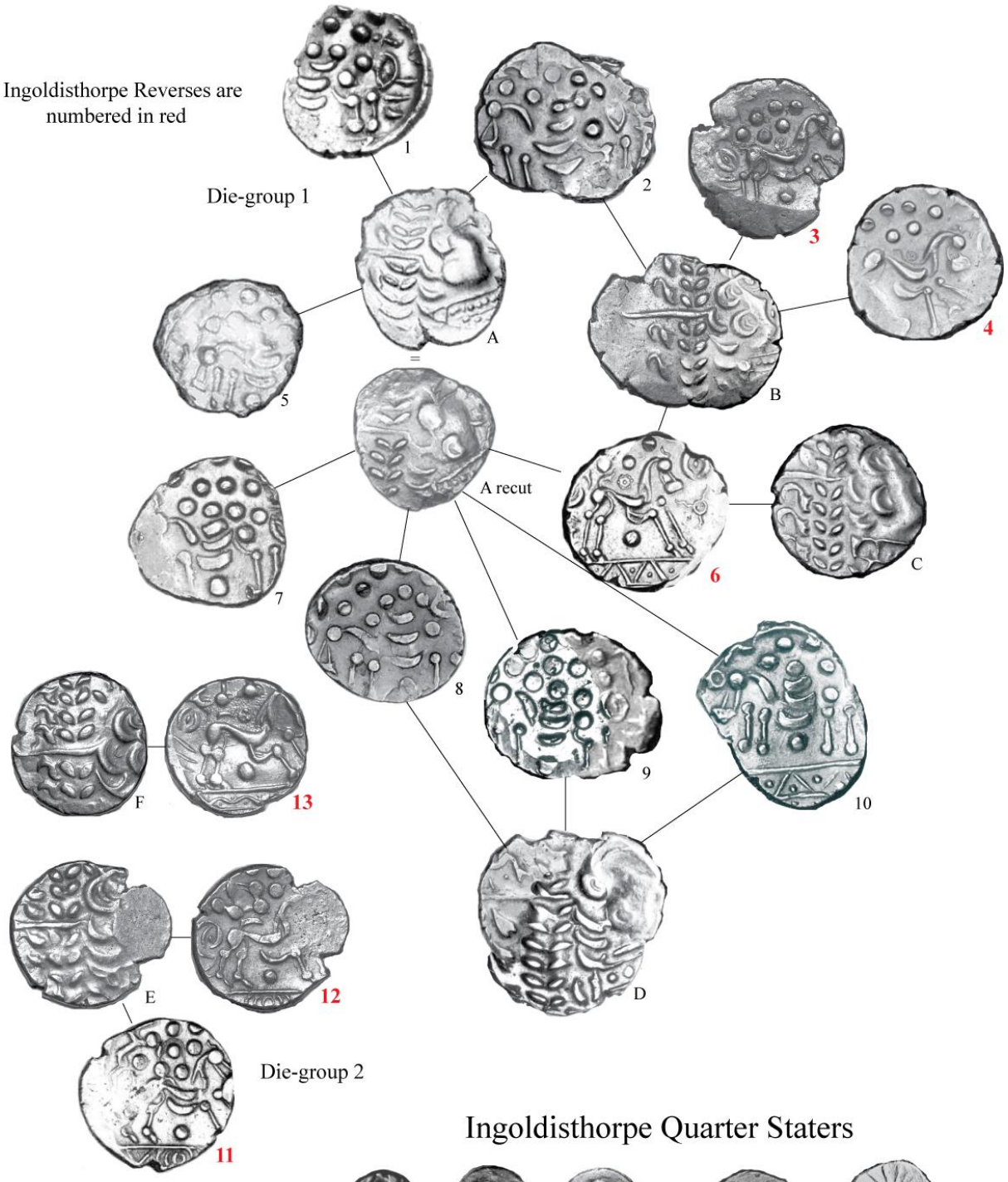
- I.52 Ece A Unit
- I.53 Ale Sca and EsvPrasto Units, Mildenhall Half Unit and Quarter Stater and uncertain types.

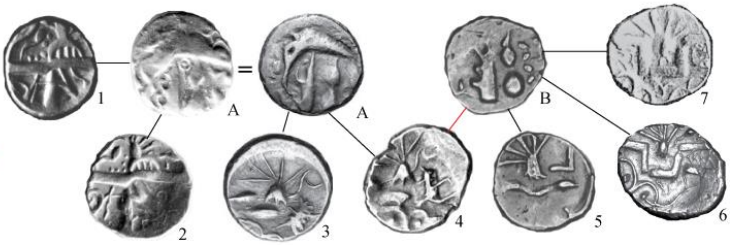
x1.5

British A and the Ingoldisthorpe Stater

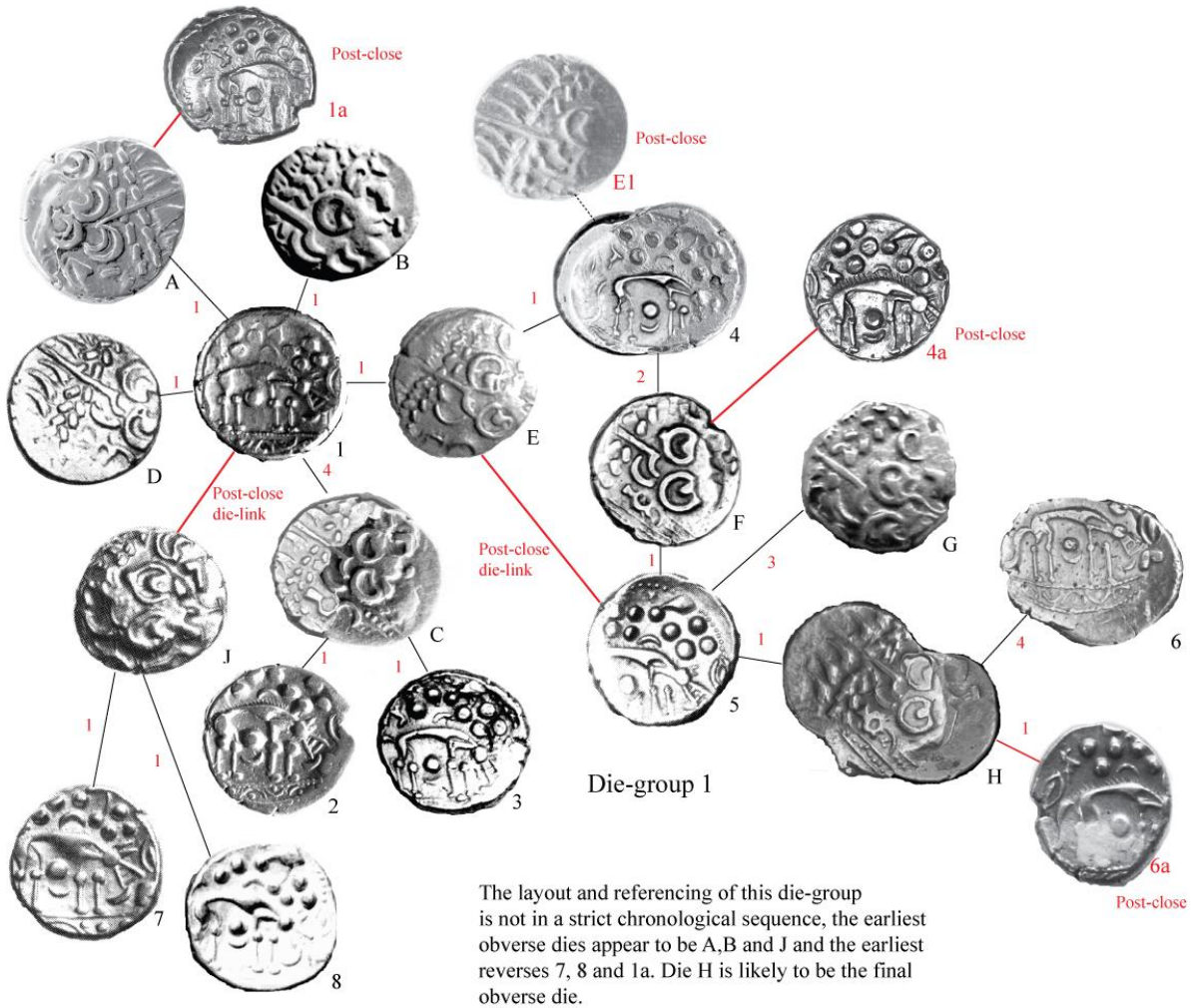
Appendix I.1



Ingoldisthorpe Quarter Staters



Quarter Stater die link B:4 is post-close, die 4 appears recut.



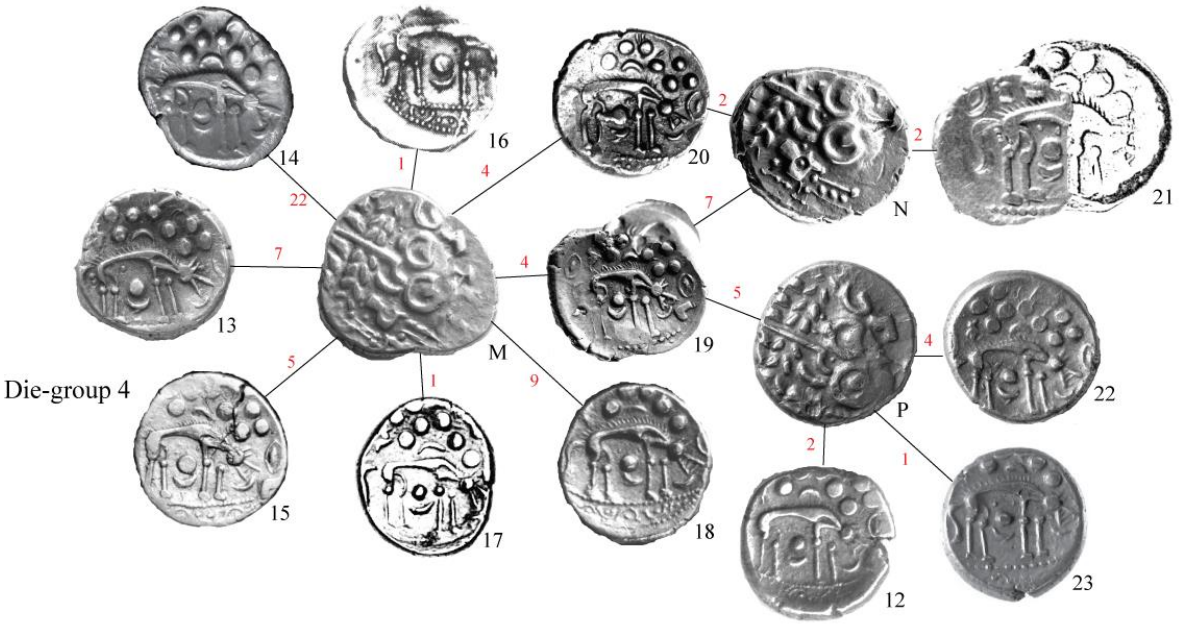
The layout and referencing of this die-group is not in a strict chronological sequence, the earliest obverse dies appear to be A,B and J and the earliest reverses 7, 8 and 1a. Die H is likely to be the final obverse die.

Copper Alloy forgery based on die-group 2

x1.5

JA continued

Appendix I.3



Die-group 3

JA Quarter Stater

x1.5

JB Sub-types A and B

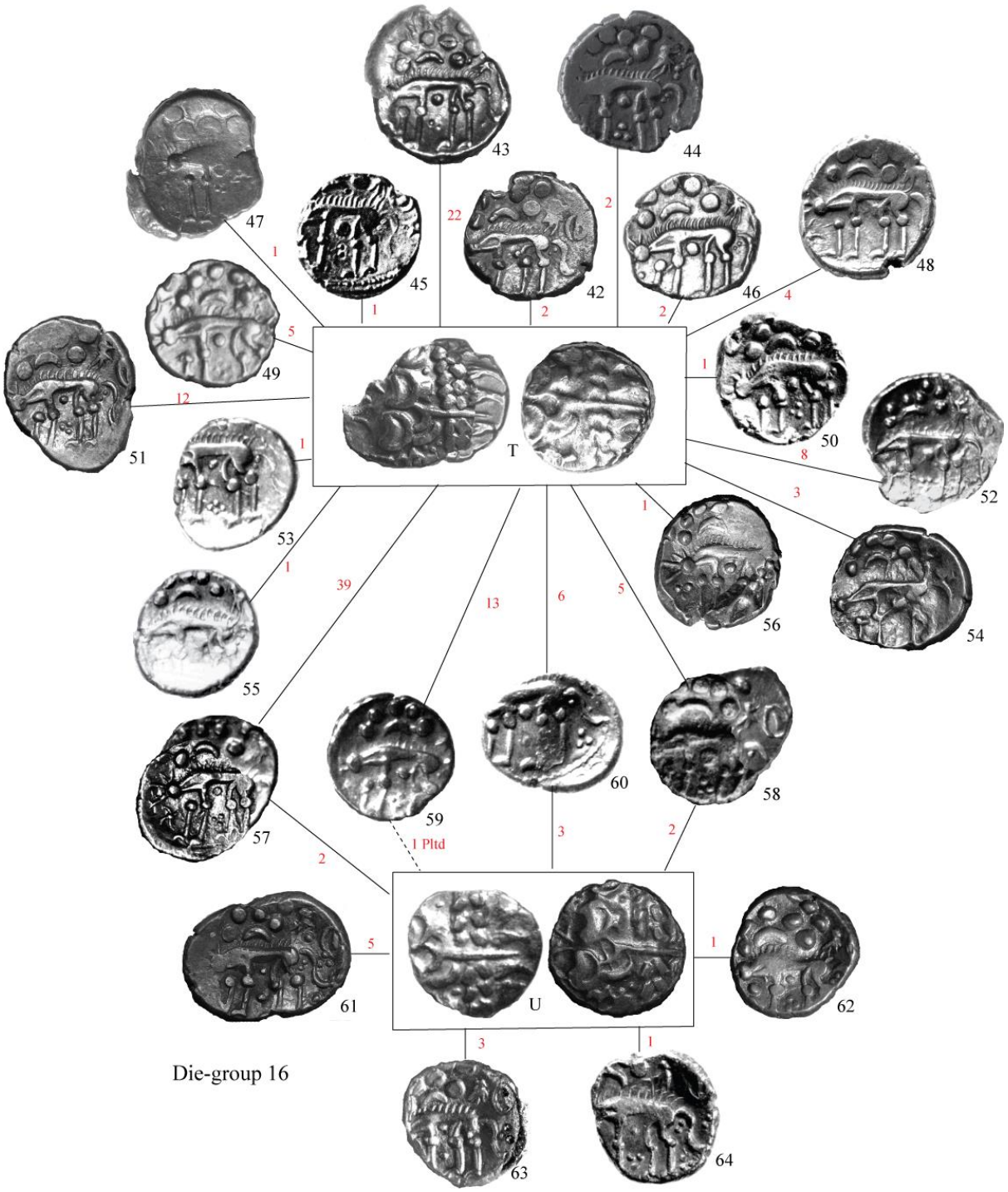
Appendix I.4

Sub-type A (Die groups 1 to 8)

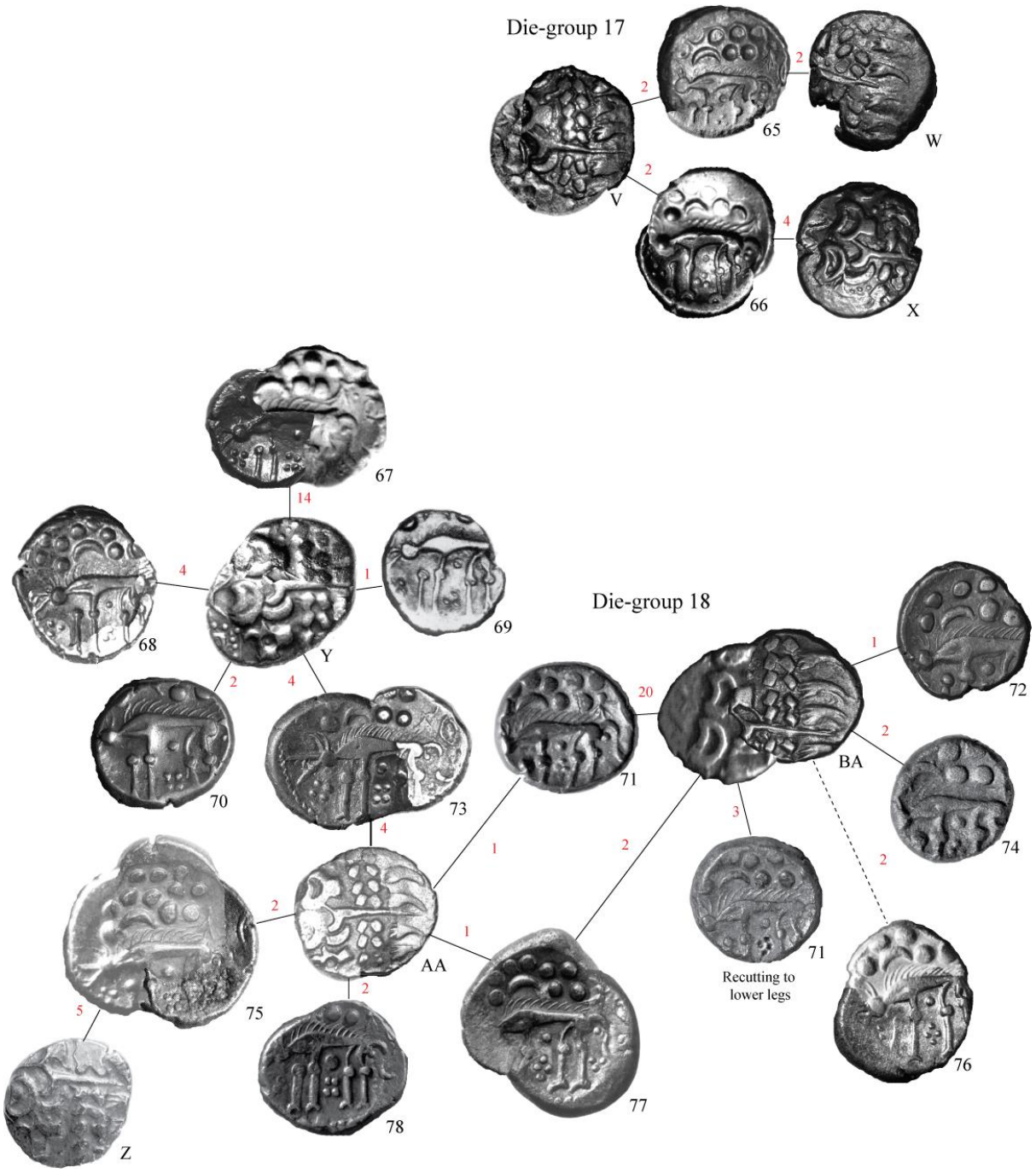
JB Sub-type Ci

Appendix I.5

JB Sub-type Cii



Die-group 16

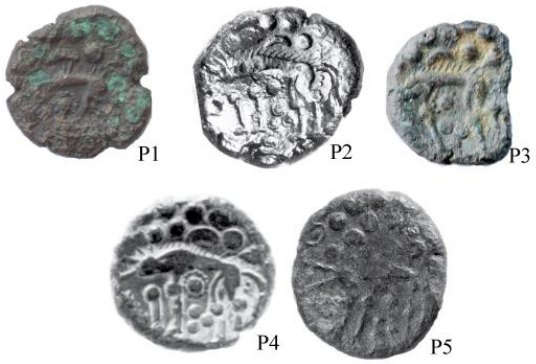

Die-group 17
65
W
V
66
X
67
68
69
Y
70
73
Die-group 18
71
72
BA
74
71
Recutting to lower legs
76
AA
75
78
77
Z

x1.5

Examples of plated JB Staters

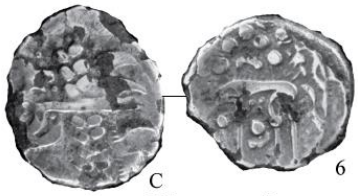
Appendix I.8

Based on Sub-type B die-group 9



Examples of plated "official" dies

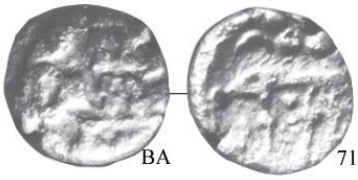
Die-group 1

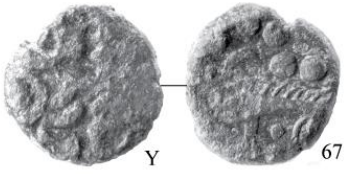


Die-group 3

Die-group 6

Die-group 16



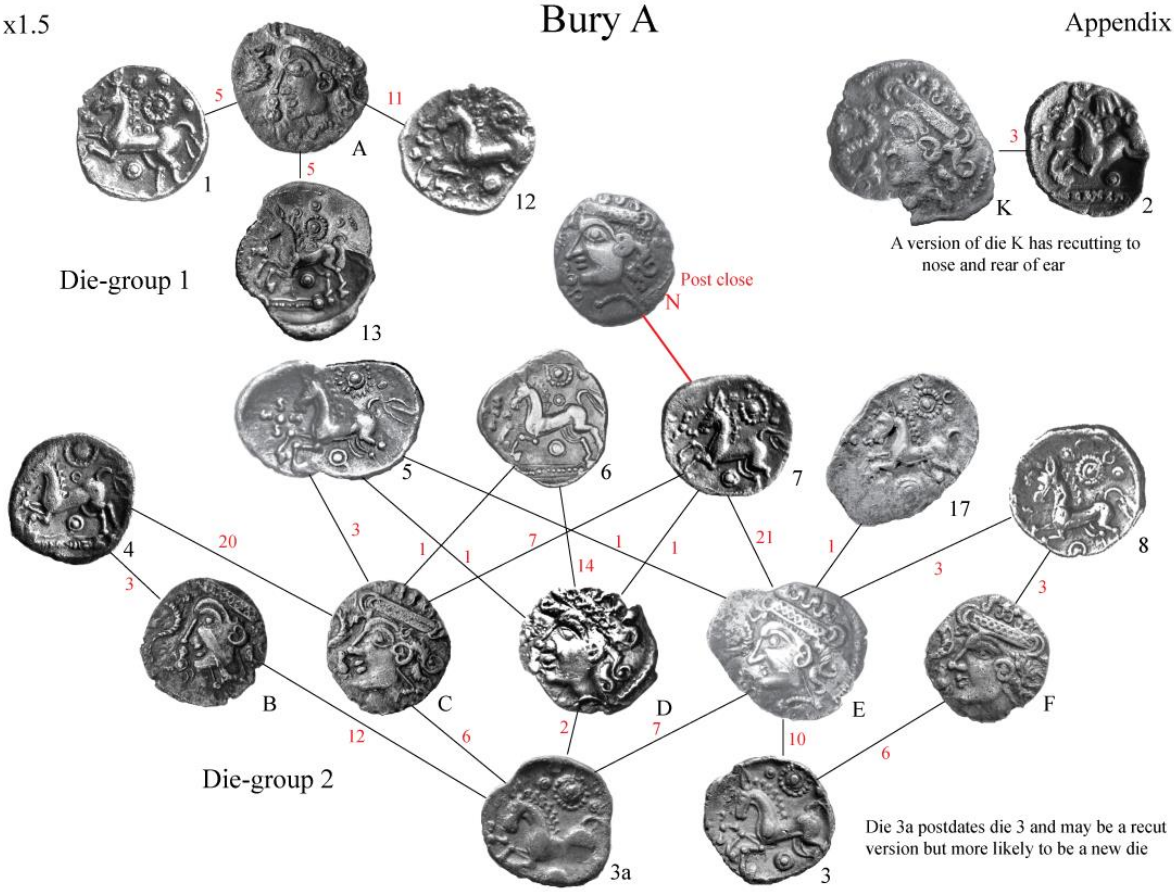


Die-group 18 (possibly including debased official coins)

x1.5

Bury A

Appendix I.9

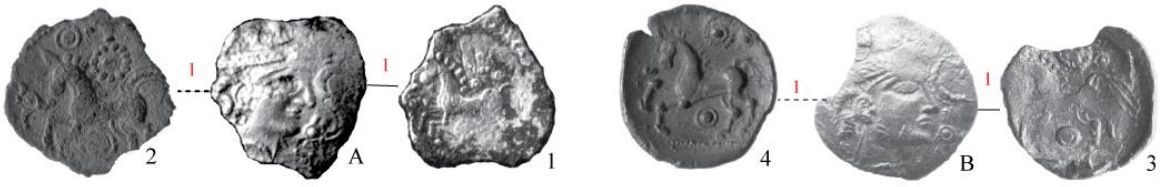


Bury E

Bury F

Bury C

Bury H



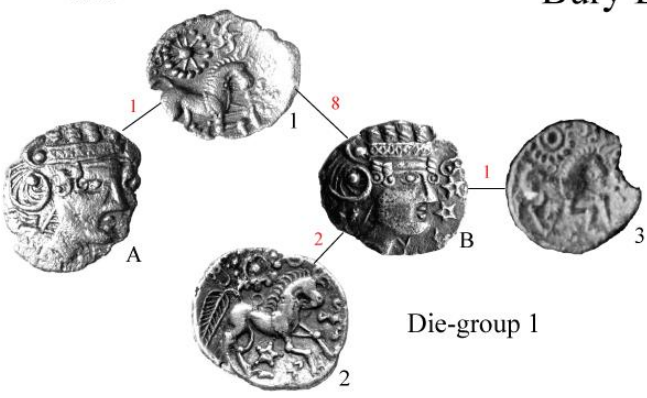
Bury G

Bury D

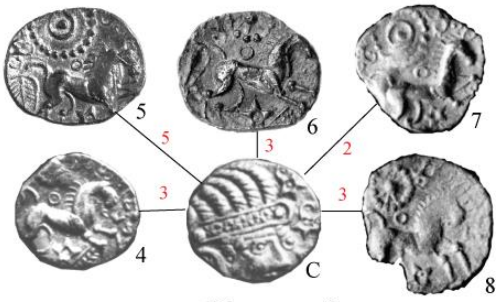
x1.5

Bury B

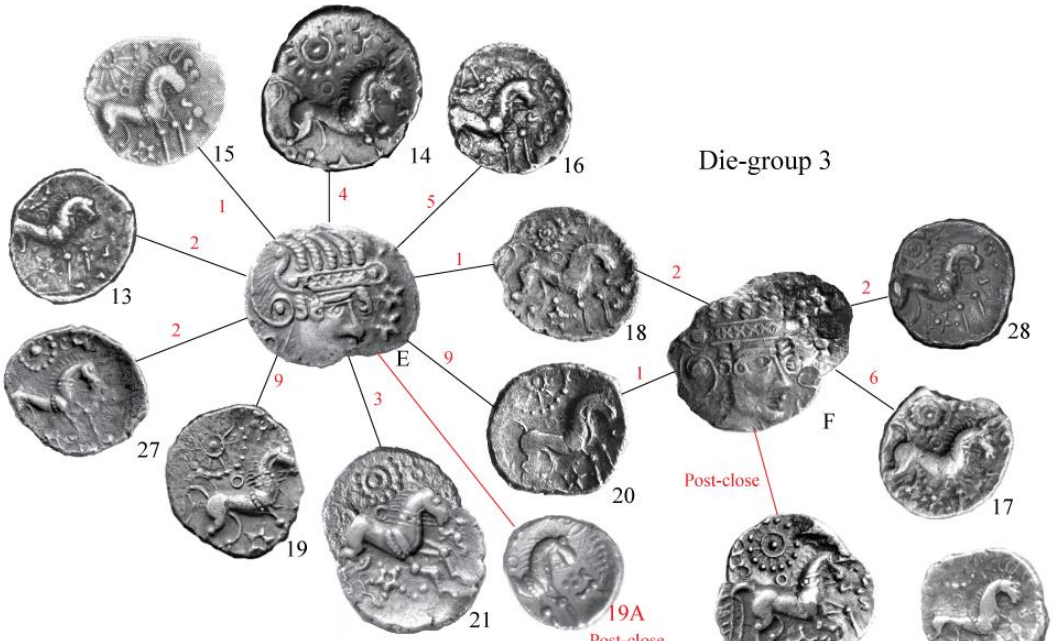
Appendix I.11



Die-group 1



Die-group 2



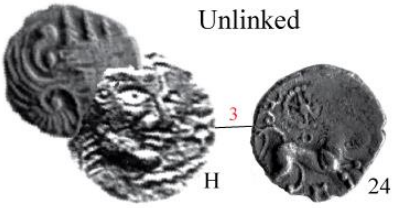
Die-group 3

Note - die D
postdates die F

Die-group 4

Die-group 5

Unlinked



x1.5

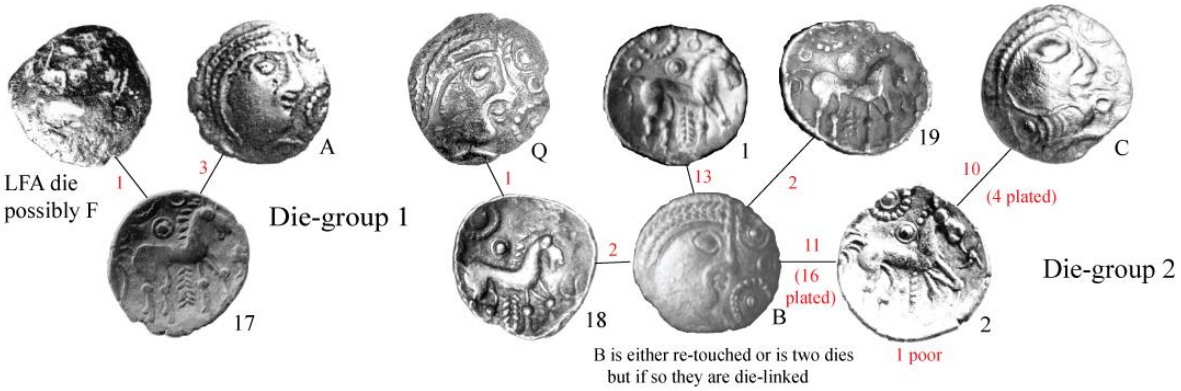
LFA

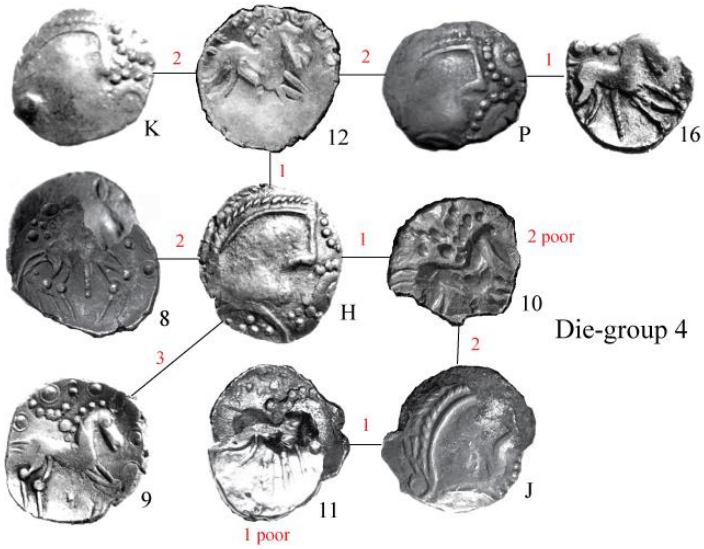
Appendix I.12

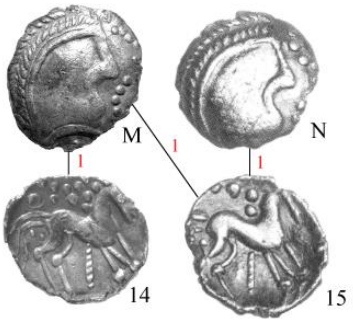
x1.5

LFC

Appendix I.13





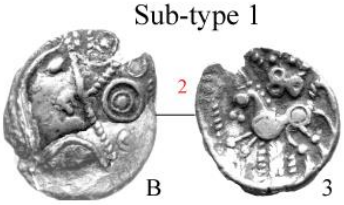


x1.5

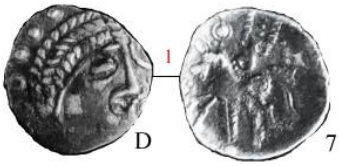
LFB

Appendix I.14

Sub-type 1



Sub-type 11



Sub-type 111

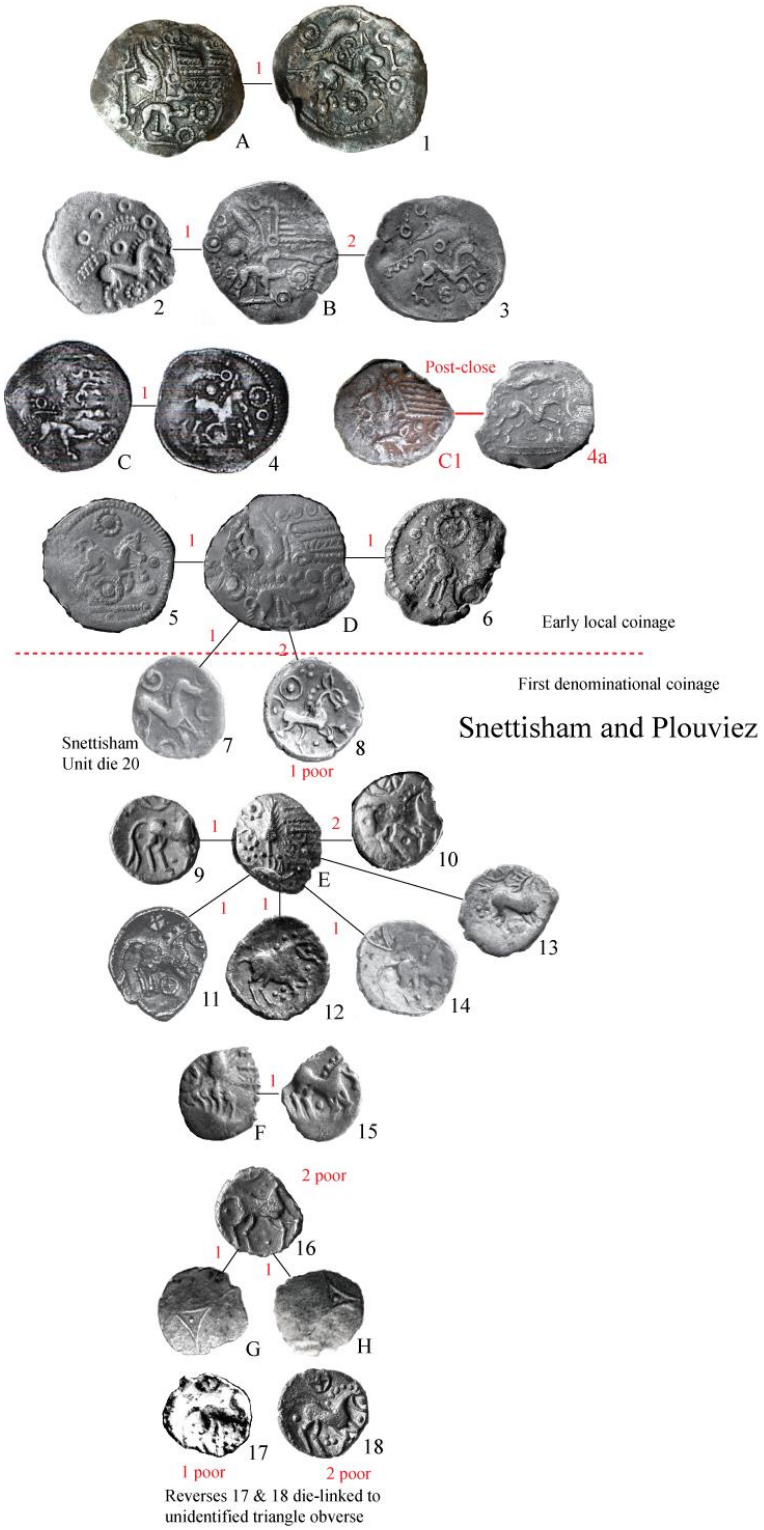
Post-close - Unit with new dies
probably related to LFB

x1.5

Early Half Units

Appendix I.15

Bury Pallas leading to Snettisham and Plouviez



Reverses 17 & 18 die-linked to unidentified triangle obverse

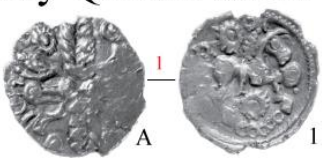
Bury Butterfly

Bury Face Horse

LFB

Irstead B Quarter Stater

Bury Quarter Stater



Irstead B Unit

Spiral Unit

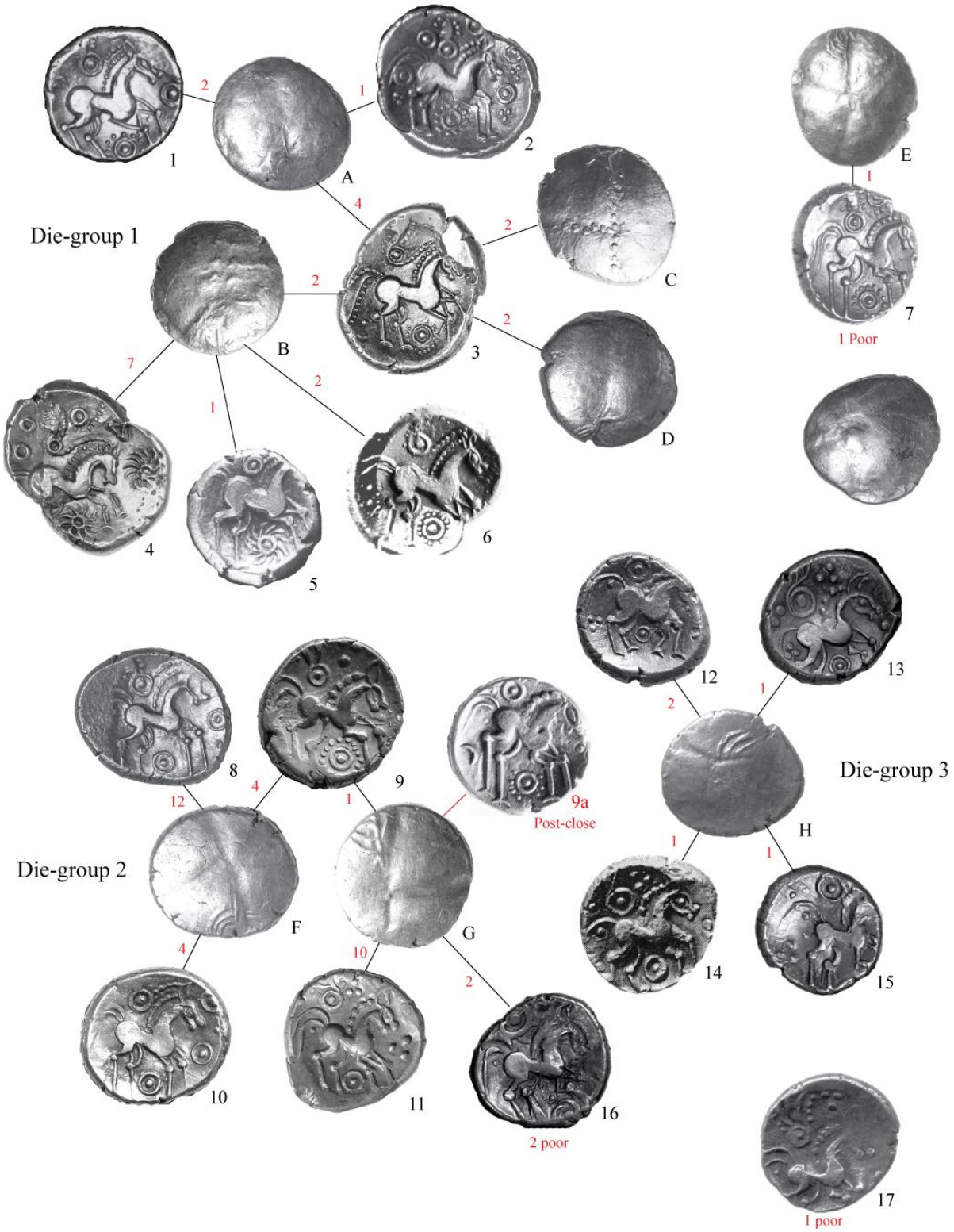
Unidentified possibly East Anglian

1.11g from Snettisham

x1.5

Snettisham Stater

Appendix I.17



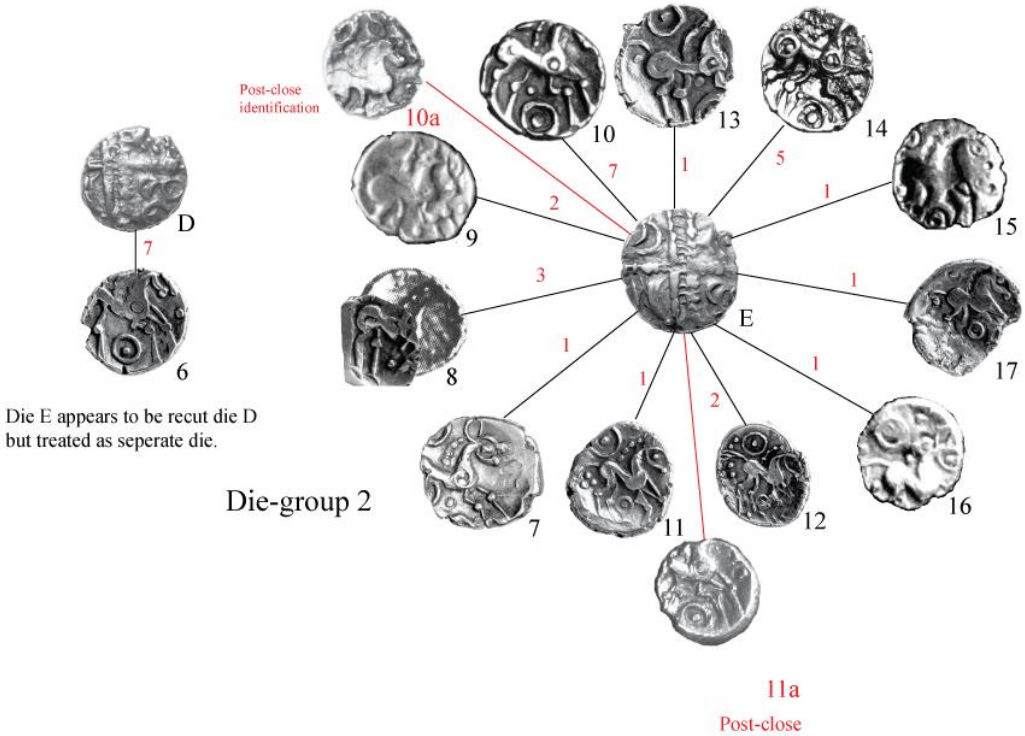
x1.5

Early Snettisham Quarter Stater

Appendix I.18

Snettisham Quarter Stater

Die-group 1



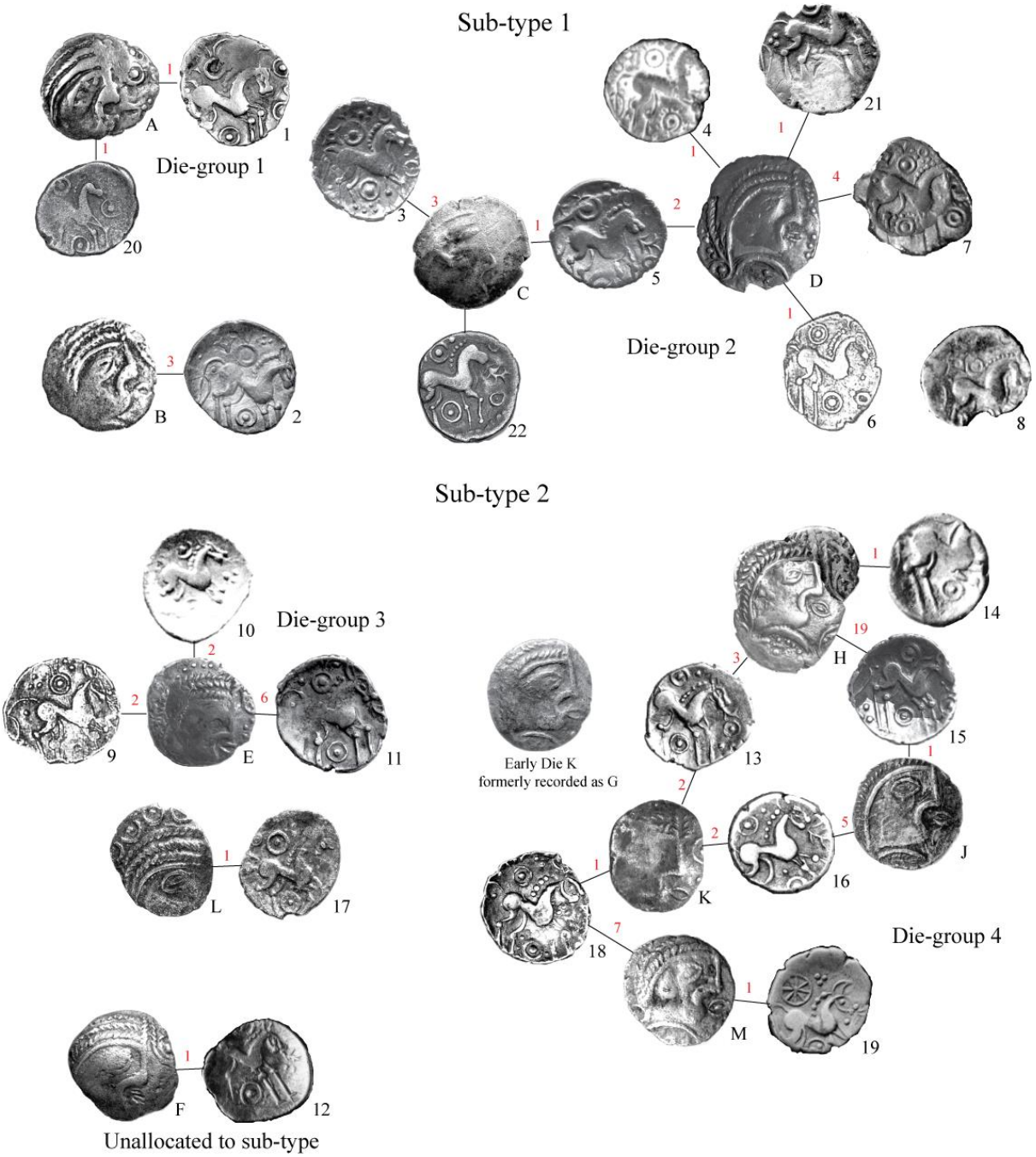
Die E appears to be recut die D but treated as seperate die.

Die-group 2

x1.5

Snettisham Unit

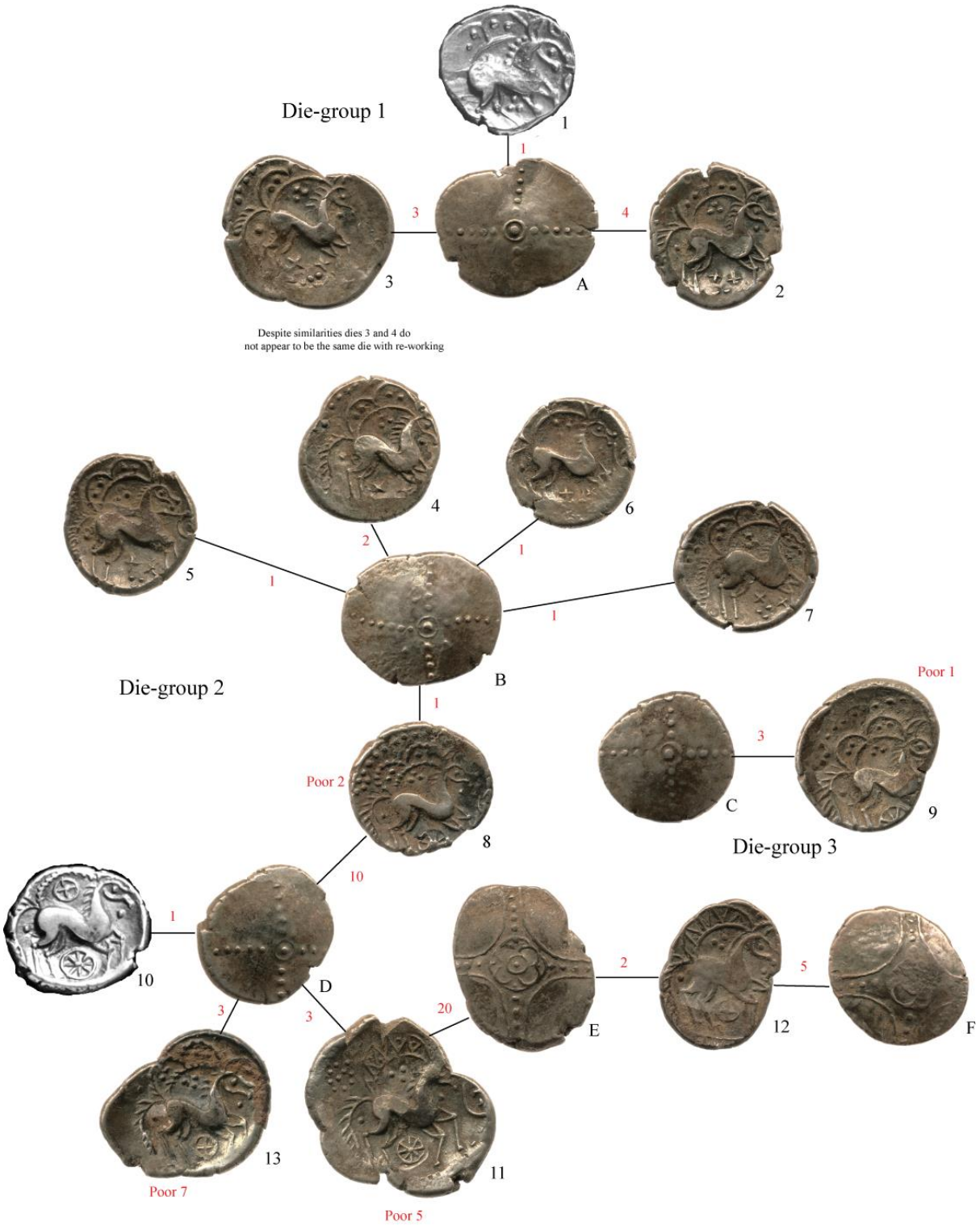
Appendix I.19



x1.5

Plouviez Stater

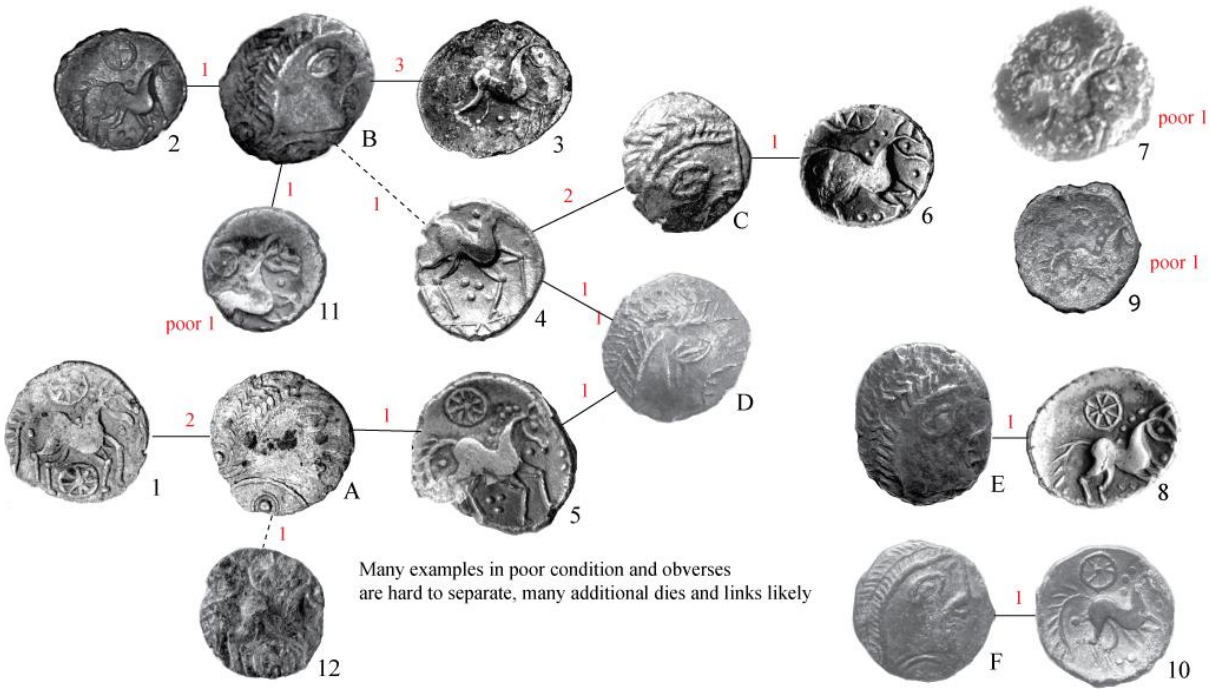
Appendix I.20



x1.5

Plouviez Unit

Appendix I.21



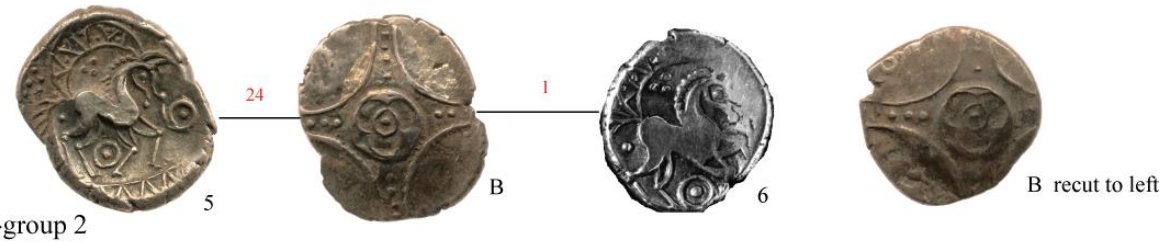
Many examples in poor condition and obverses
are hard to separate, many additional dies and links likely

x1.5

Irstead Stater

Appendix I.22

Die-group 1



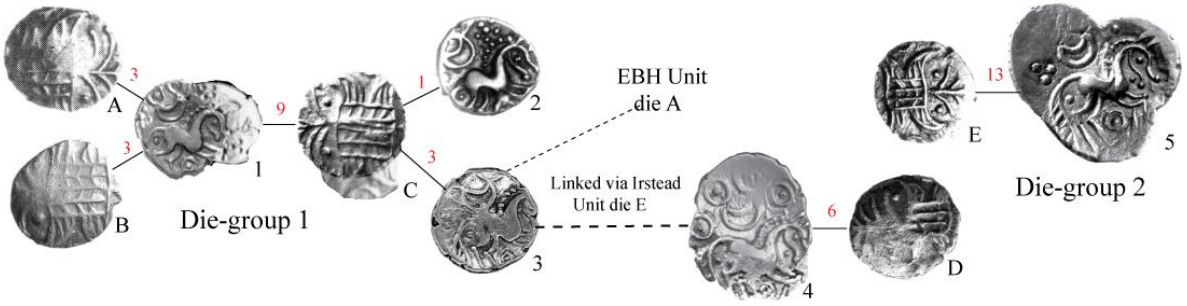
Die-group 2

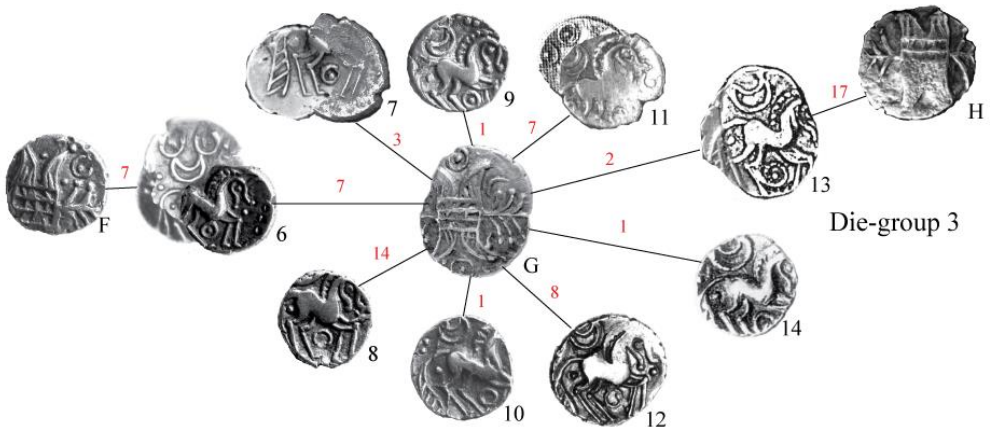
Die-group 3

x1.5

Irstead Quarter Stater

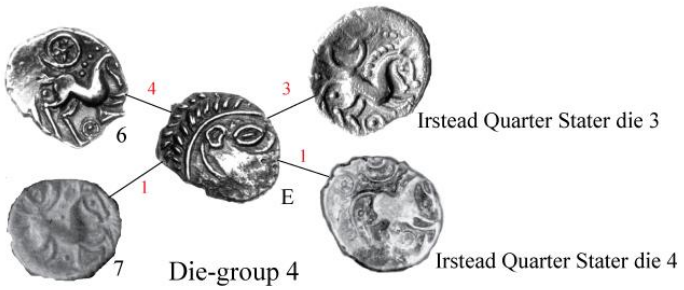
Appendix I.23





Irstead A Unit

x1.5



Irstead Half Unit

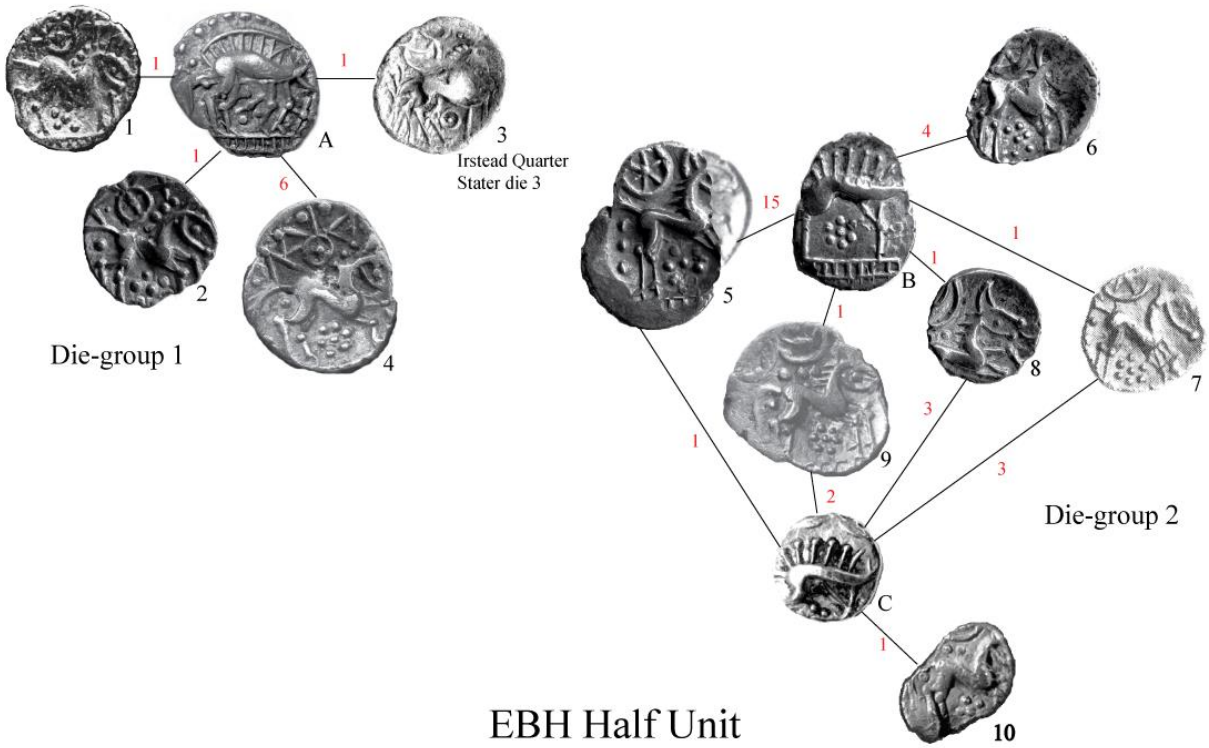
Die-group I

Die-group 2

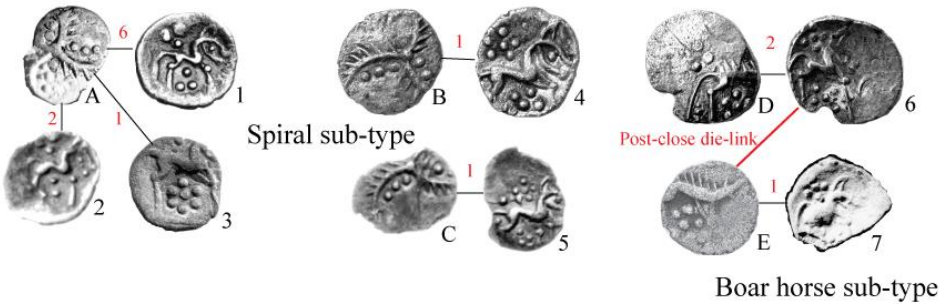
x1.5

EBH Unit

Appendix I.25



EBH Half Unit



x1.5

BHB Stater

Appendix I.26

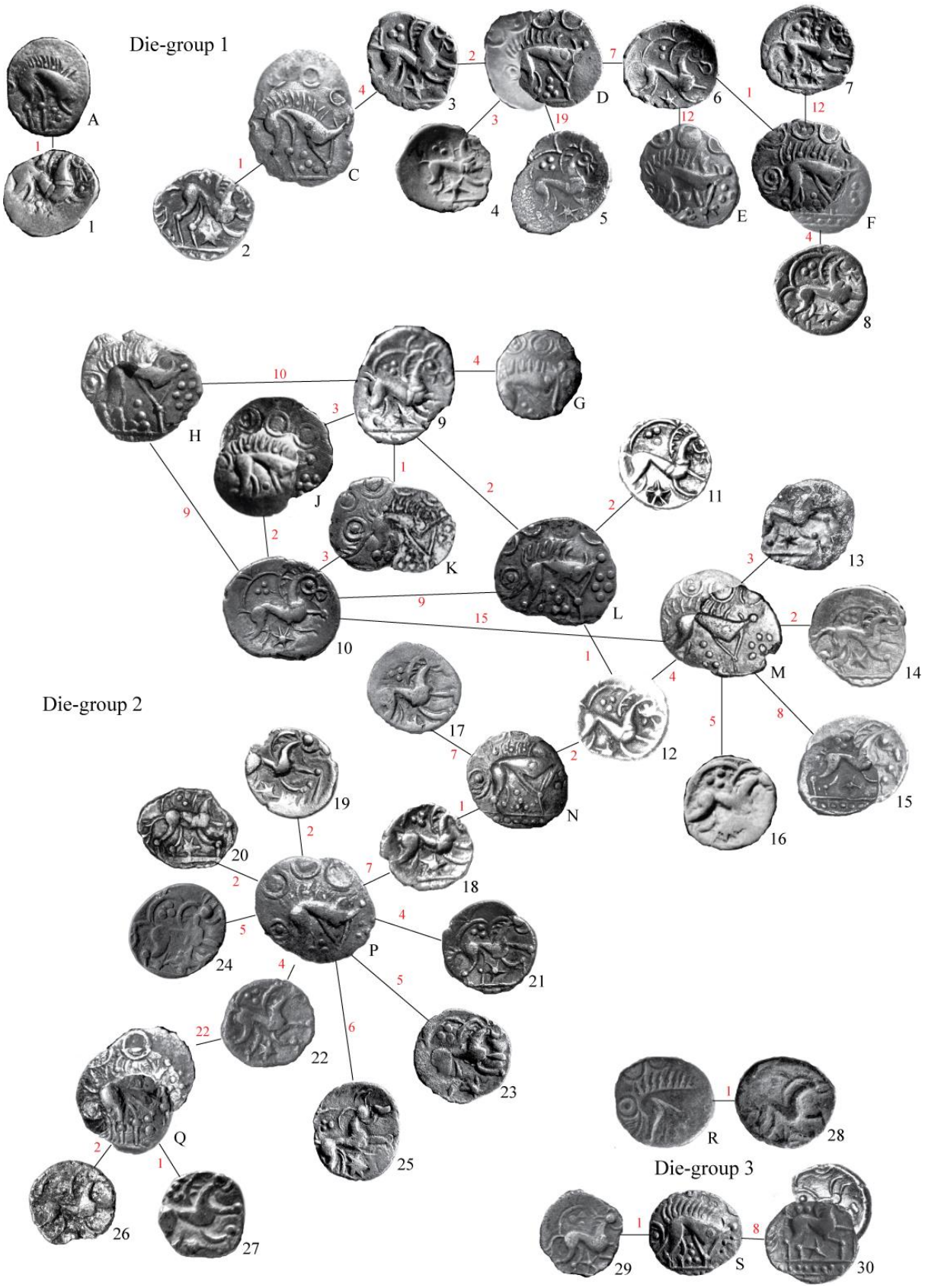
Die-group I

Die-group 2 - BHA Sub-type

X1.5

BHB Unit

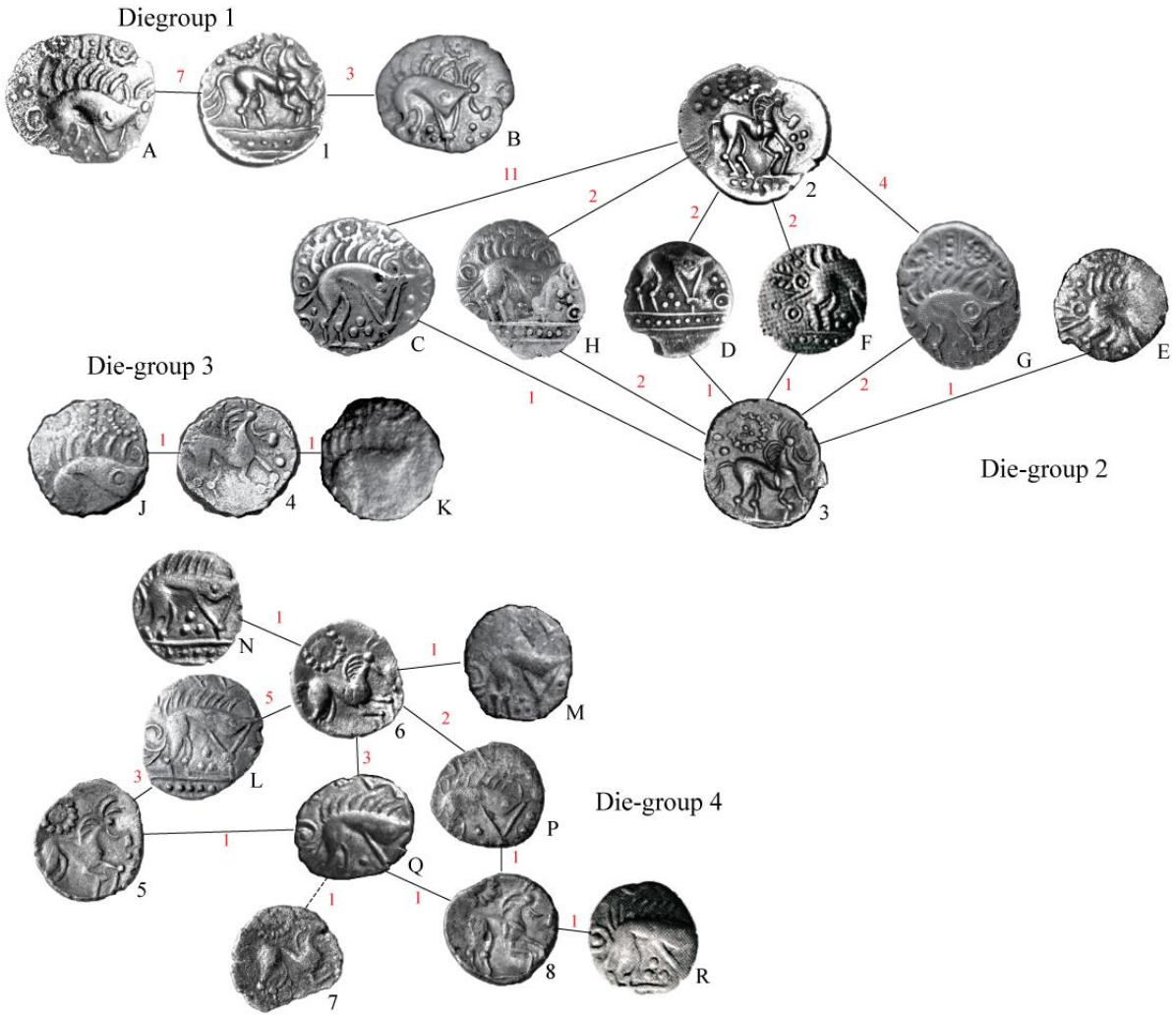
Appendix I.27



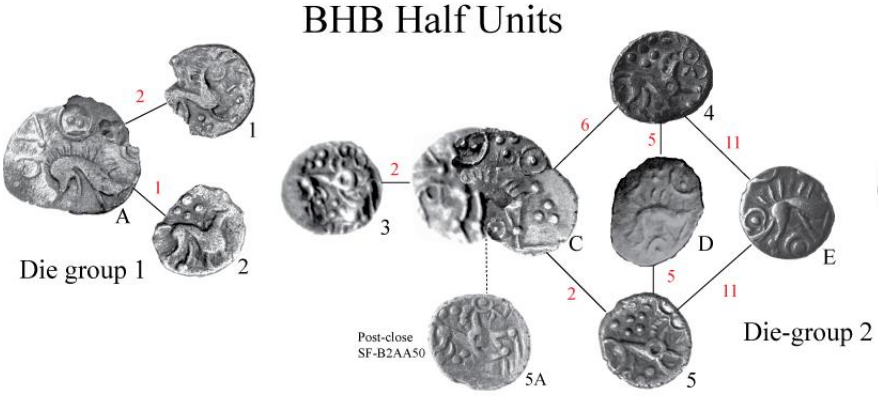
x1.5

BHB(A) Unit

Appendix I.28

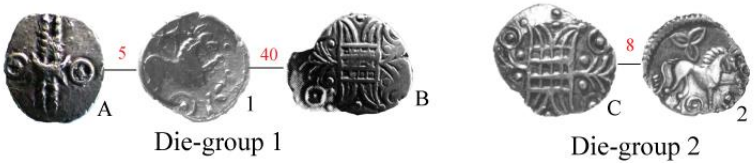


BHB Half Units



BHB(A) Half Unit

BHB Quarter Stater



x1.5

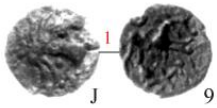
BHC Stater

Appendix I.29

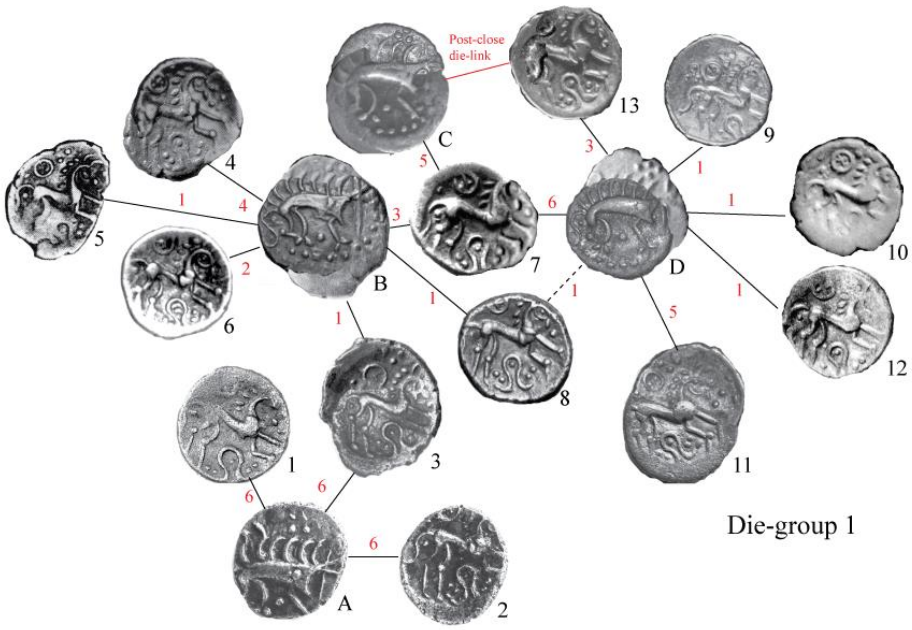
Example of false BHC Stater

BHC Quarter Stater

BHC Half Units

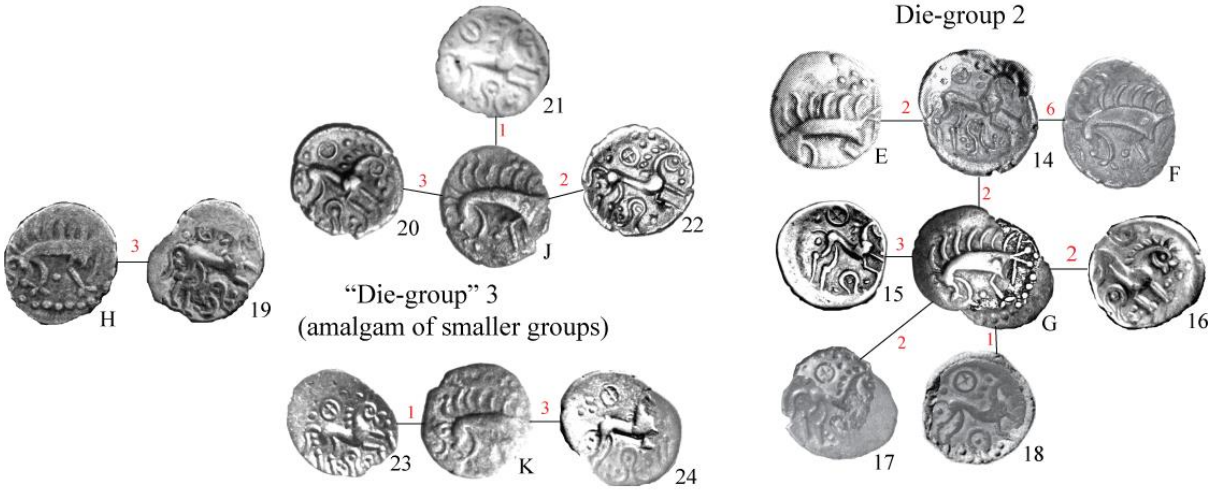


Die-group 1



Die-group 1

Die-group 2

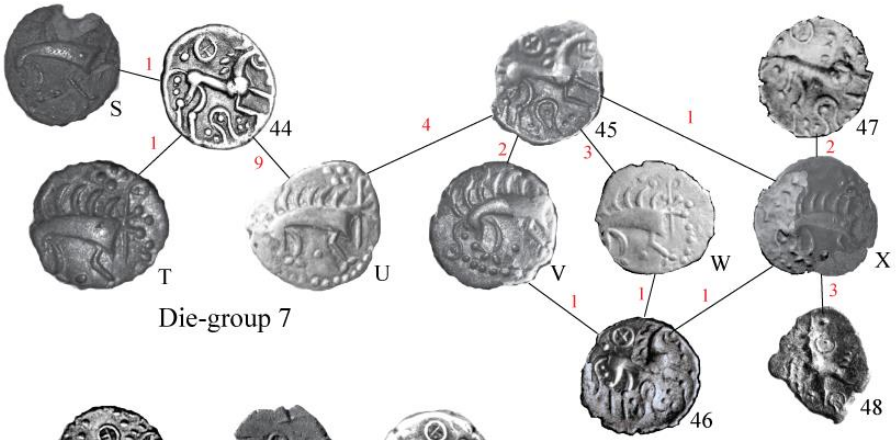


"Die-group" 3
(amalgam of smaller groups)

Die-group 4

Die-group 5

Die-group 6



Die-group 7

Die-group 8

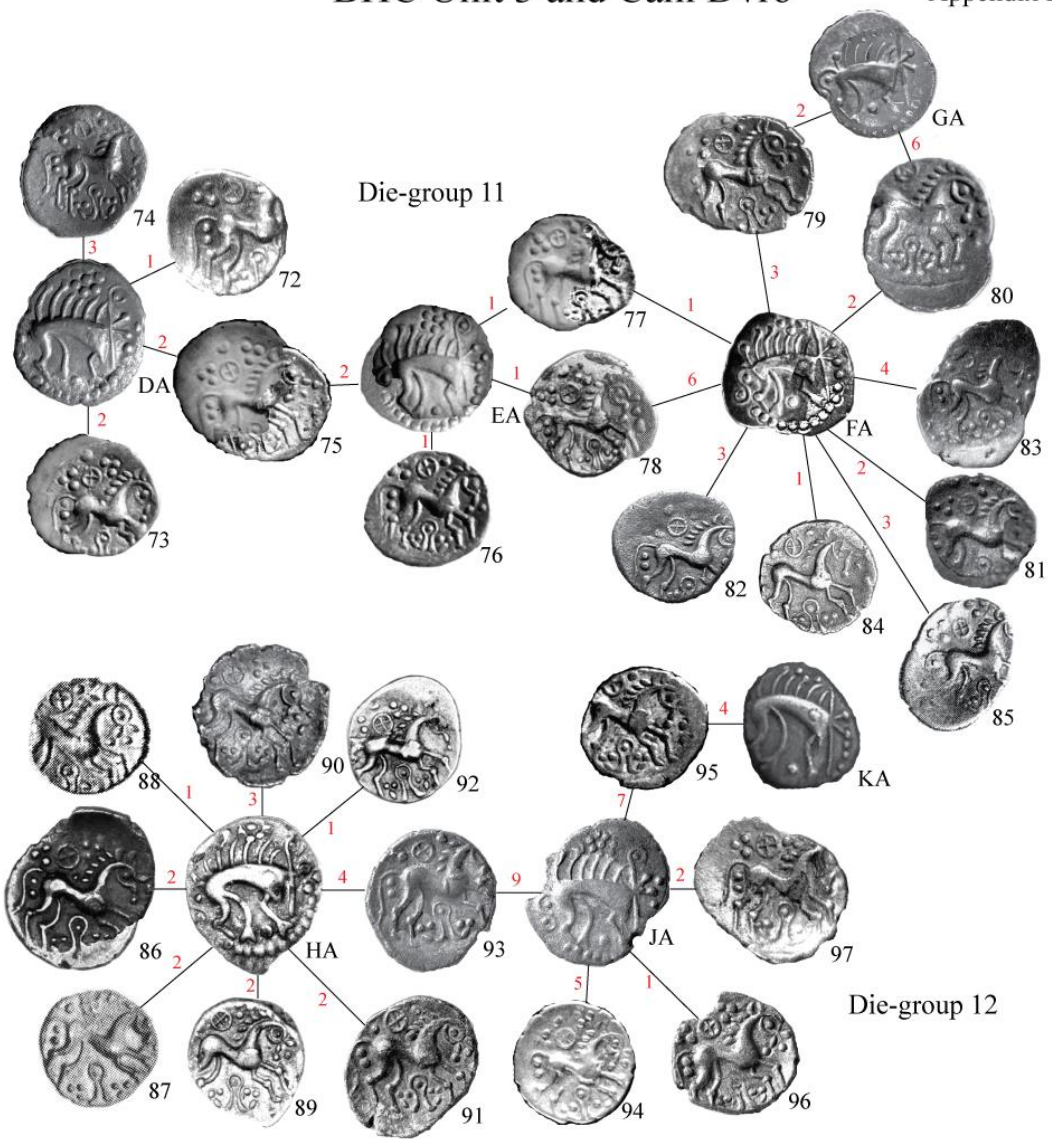
Die-group 9

Die-group 10

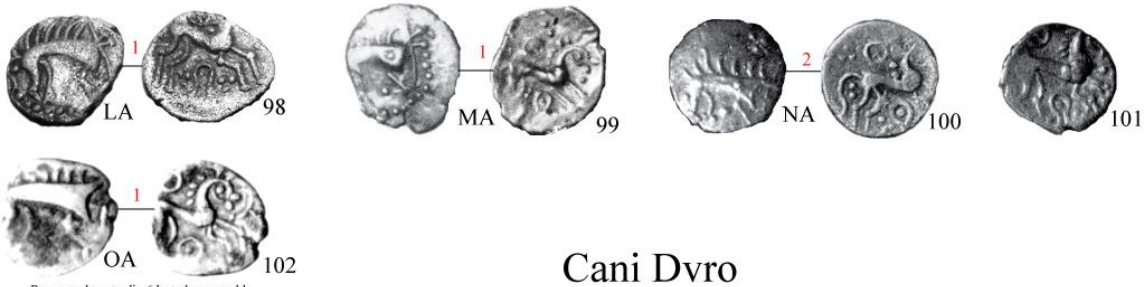
x1.5

BHC Unit 3 and Cani Dvro

Appendix I.32



Unlinked dies or pairs - possibly including plated coins



Reverse close to die 6 but obverse odd, possibly a plated forgery

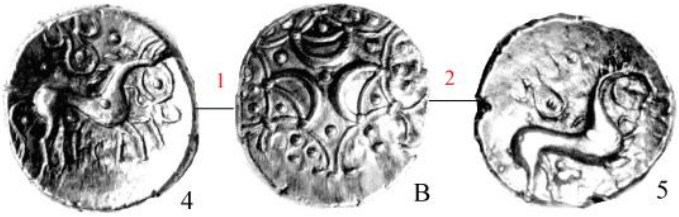
Cani Dvro

x1.5

Anted and Ecen Stater

Appendix I.33

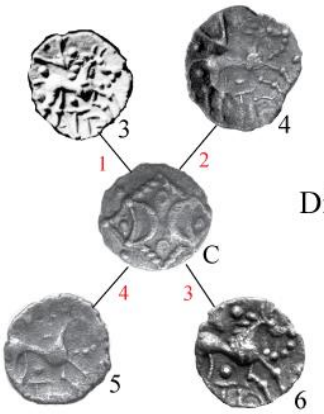
Ece Stater



Antedio SIA Unit and Half Unit

Anted Half Unit

Die-group 1

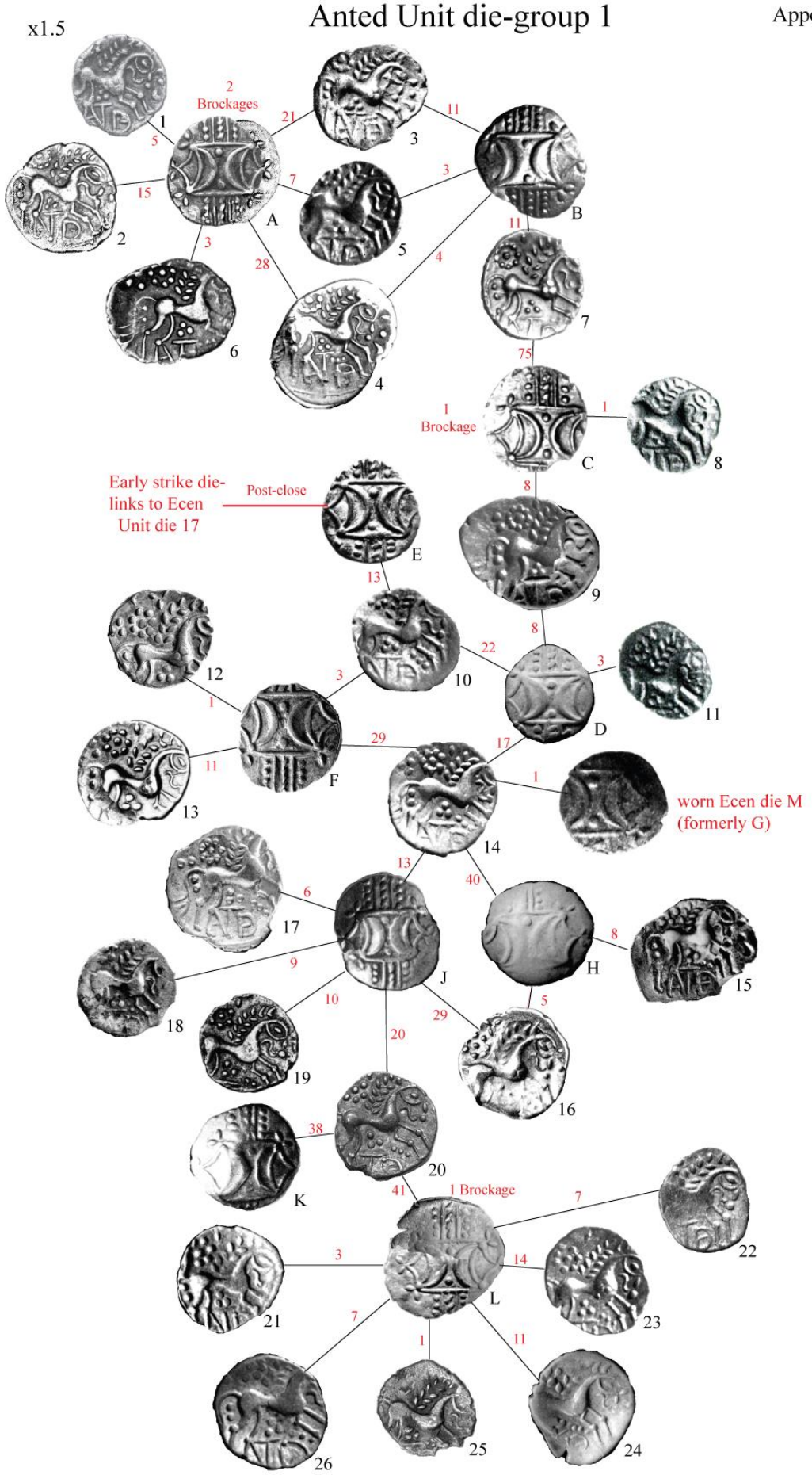


Die-group 2

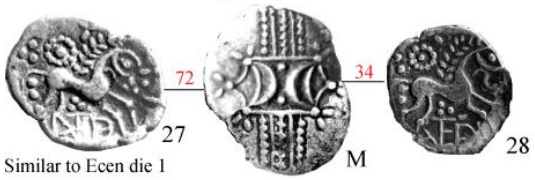
Die C slightly re-cut after reverse 3

Anted Unit die-group 1

Appendix I.34



Die-group 2



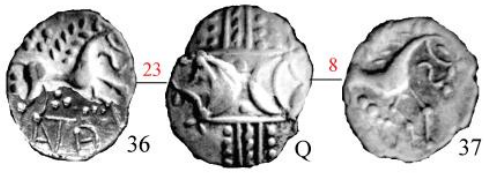
Similar to Ecen die 1

Die-group 3

The outer bands of die N were re-worked

Die-group 4

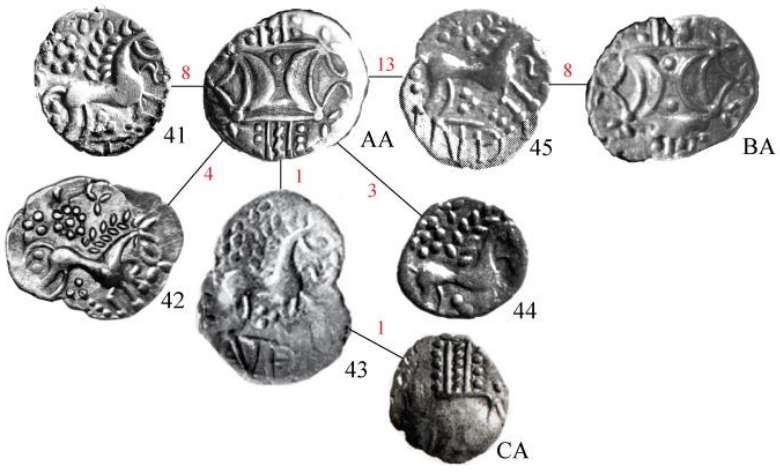
Die-group 5



Die-group 6

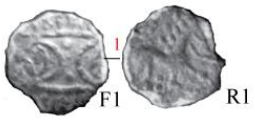
Most obverse dies developed die flaws

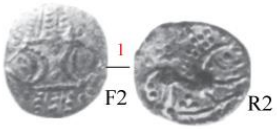
Die-group 7

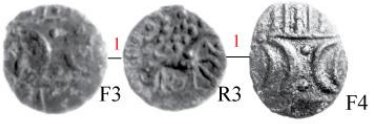


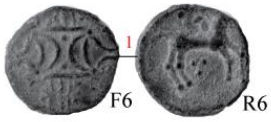
Unusual dies assumed to be plated

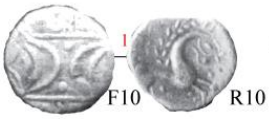
Definitely plated

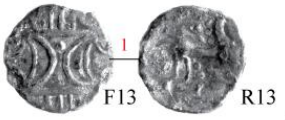




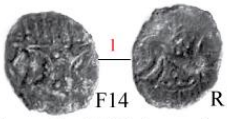








Reverse appears to have a C below horse - see SIA type



Obverse close to R but reverse has elongated pellet to right of pellet-triangle as on die 28

Linked to worn and slightly recut F19

x1.5

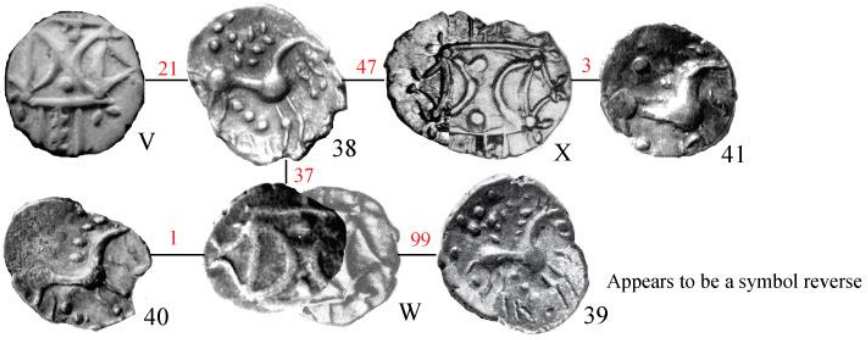
Ecen Unit die-group 1

Appendix I.37

Ecen Unit 2

Die-group 2

Die-group 3



Appears to be a symbol reverse

Die-group 4 (symbol)

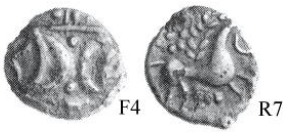
Die-group 5 (symbol)

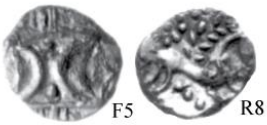
x1.5

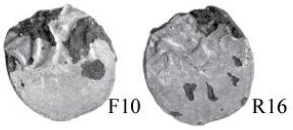
Ecen plated Units

Appendix I.39

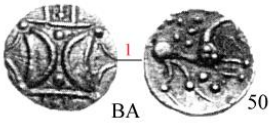
Photo needed F2 R4
BMC 4344



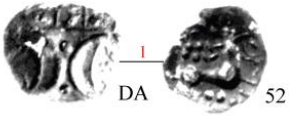




Unusual dies - assumed to be plated but some may be small local issues



Some design elements
of Ece B

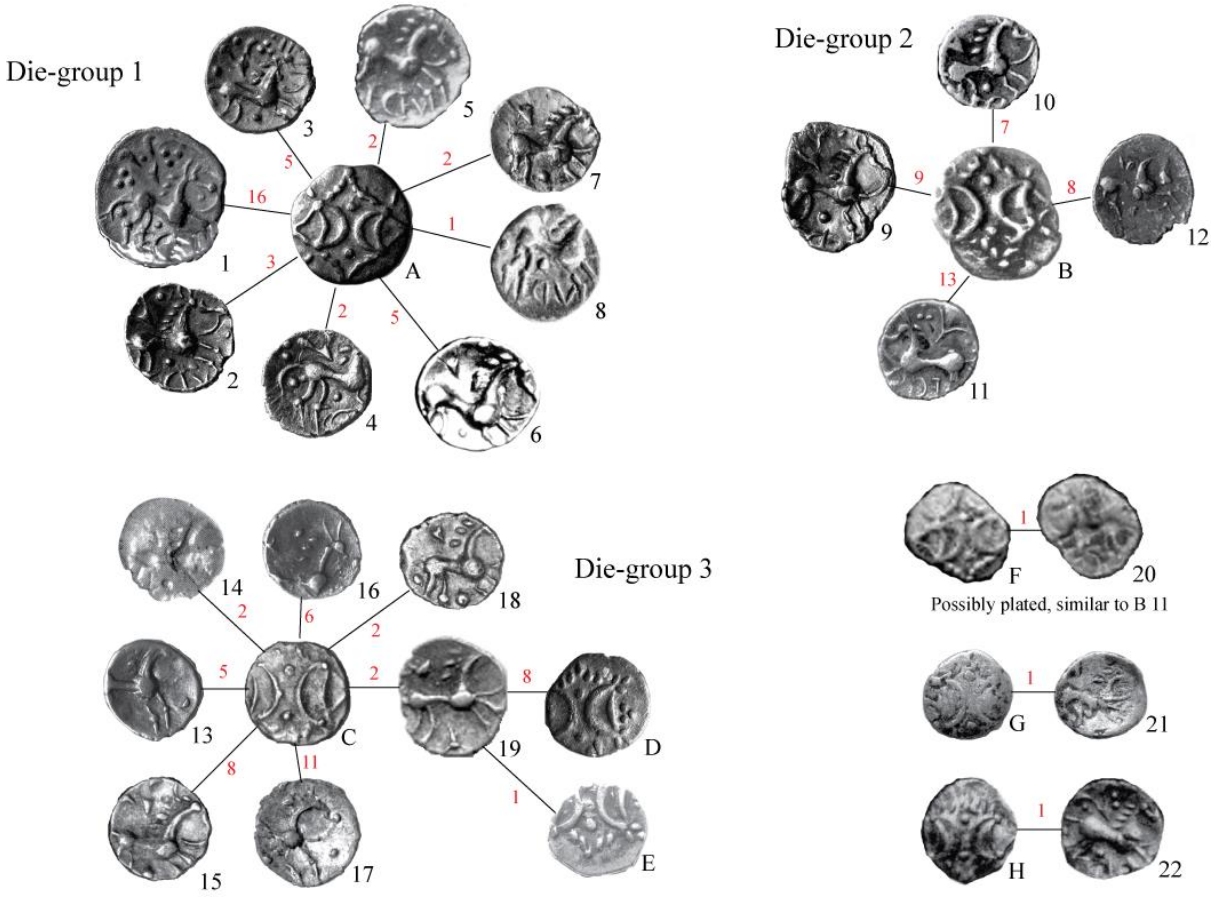


Could be Ece A or symbol type,

x1.5

Ecen Half Unit

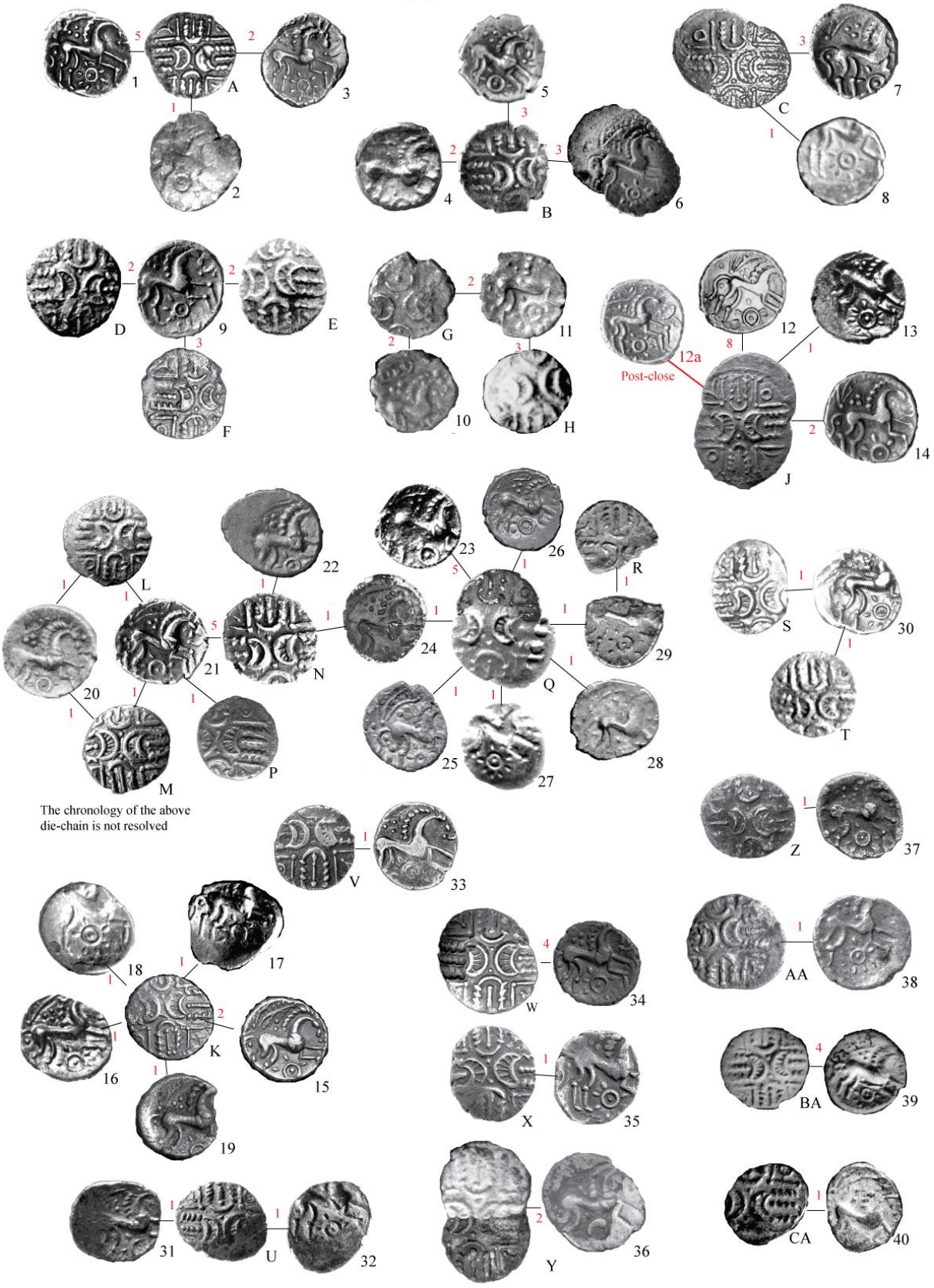
Appendix I.40



x1.5

EPH(A) Unit

Appendix I.41



The chronology of the above die-chain is not resolved

x1.5

EPH(A) Unit cont'd

Appendix I.42

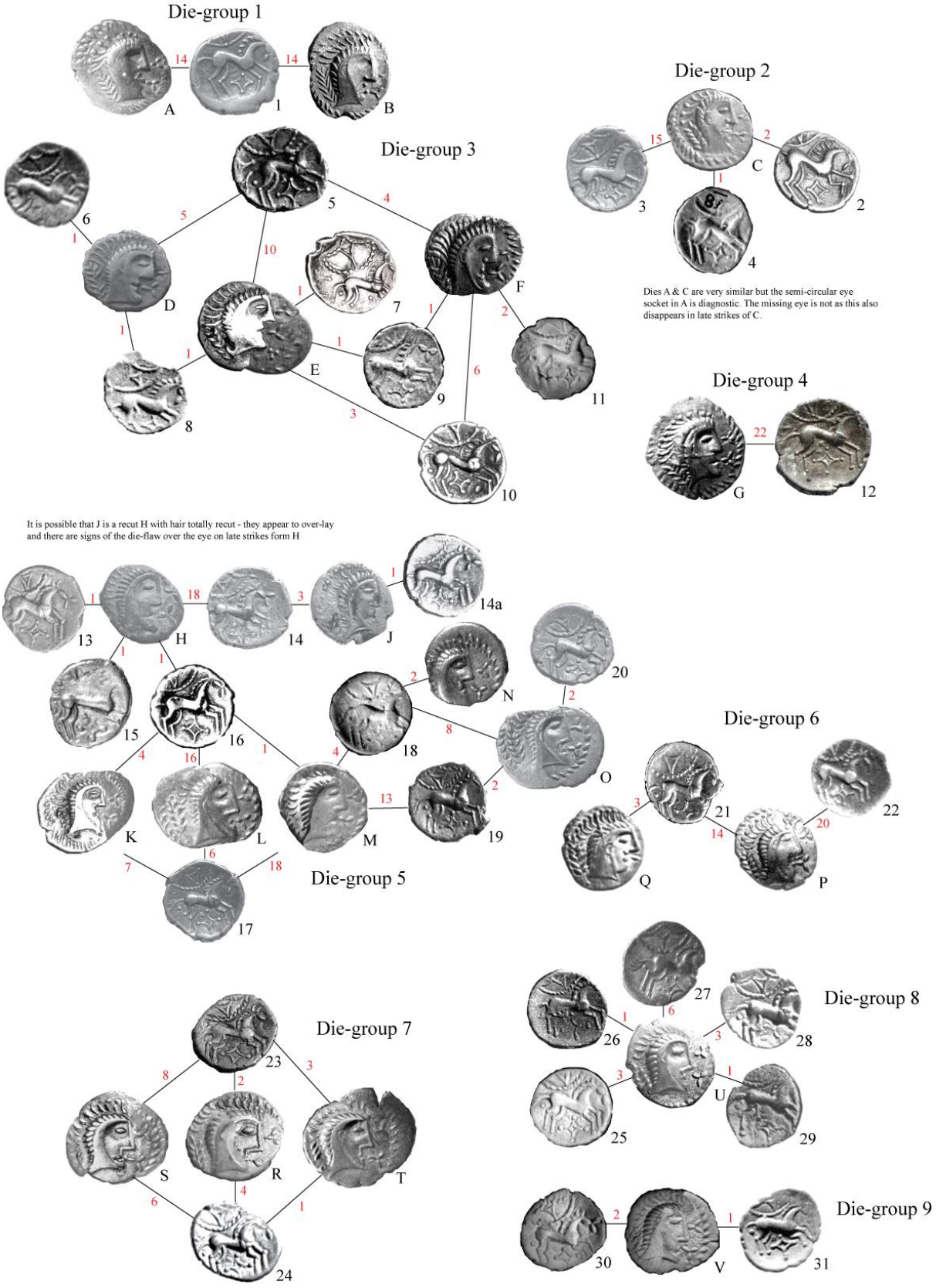
EPH(A) Half Unit

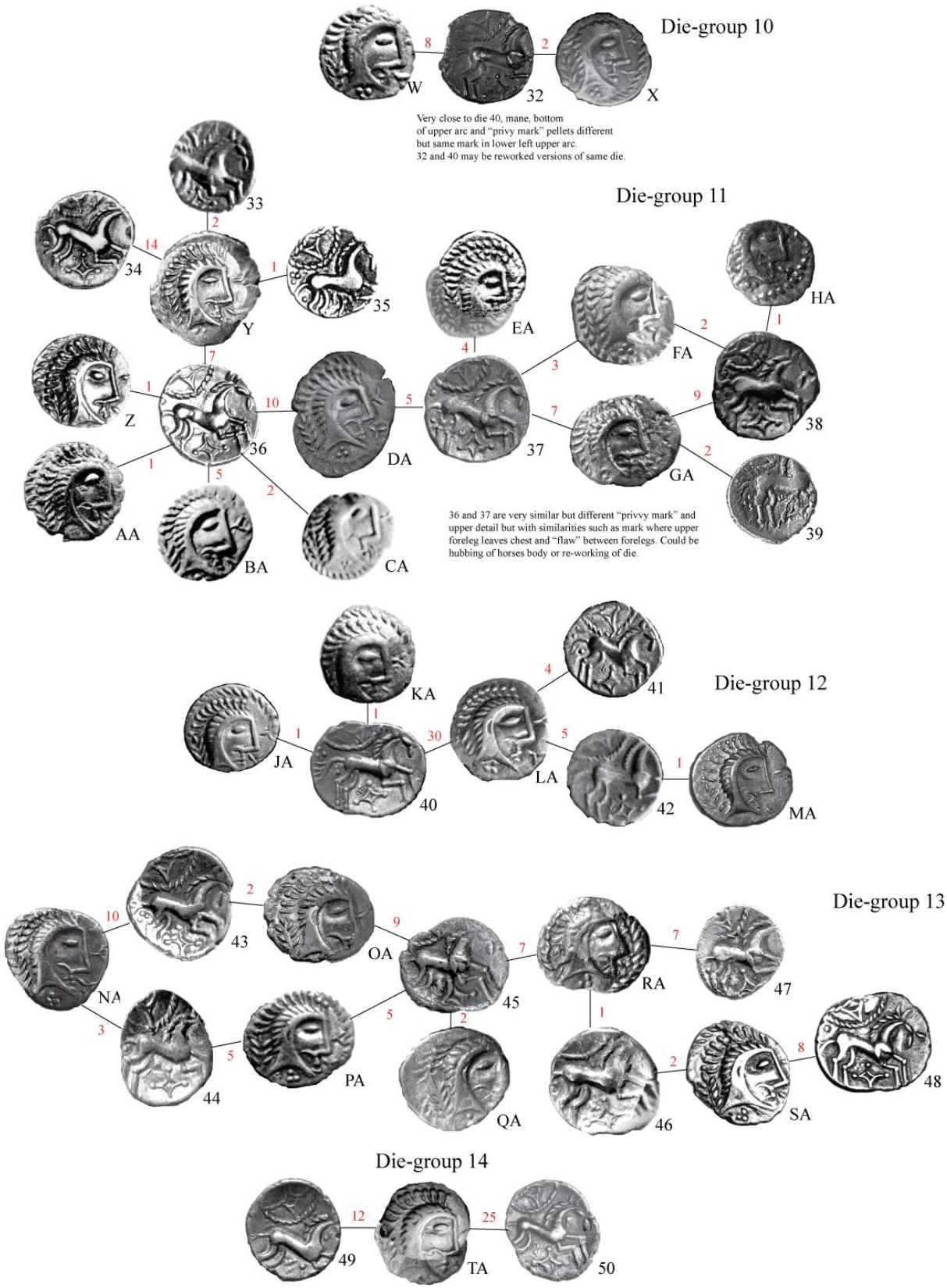
EPH(A) Stater

X1.5

LFH Unit sub-set 1

Appendix 1.43



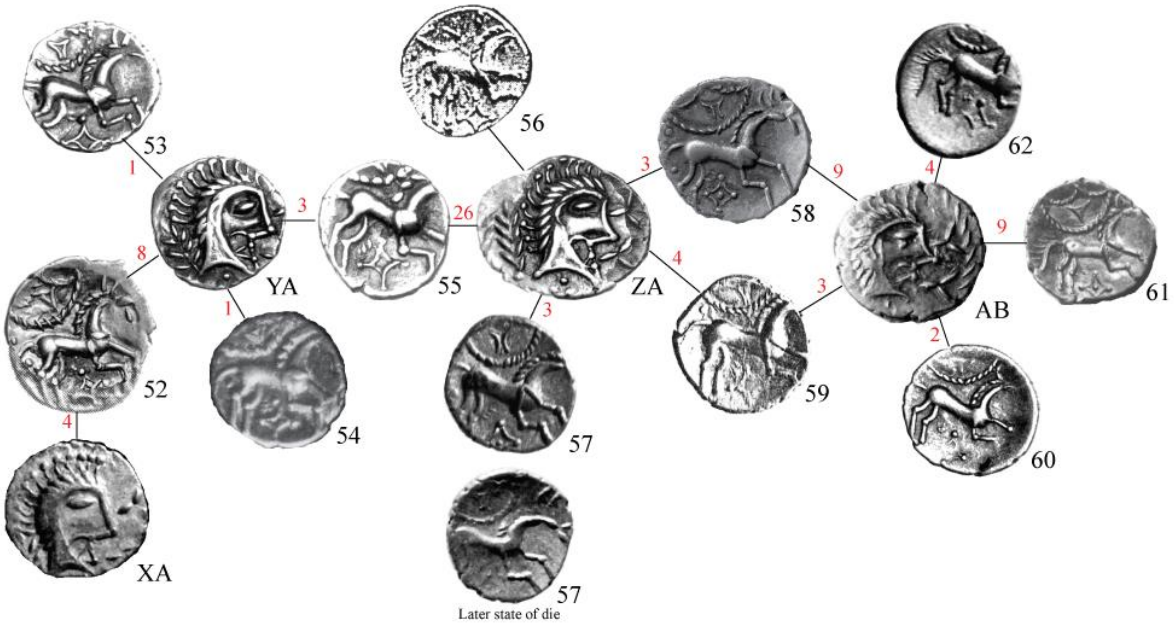

Die-group 10
W
8
32
2
X
Very close to die 40, mane, bottom of upper arc and "privy mark" pellets different but same mark in lower left upper arc. 32 and 40 may be reworked versions of same die.
Die-group 11
33
2
14
34
Y
1
35
7
1
Z
10
36
5
DA
1
5
2
AA
BA
CA
EA
4
3
FA
2
HA
1
37
7
9
38
GA
2
39
36 and 37 are very similar but different "privvy mark" and upper detail but with similarities such as mark where upper foreleg leaves chest and "flaw" between forelegs. Could be hubbing of horses body or re-working of die.
KA
4
41
Die-group 12
1
1
JA
30
40
5
LA
1
42
MA
10
2
43
9
OA
7
RA
7
47
NA
3
5
44
PA
5
2
45
QA
1
2
8
46
SA
48
Die-group 13
Die-group 14
12
25
49
TA
50

LFH Unit sub-set 2 continued

Die-group 15

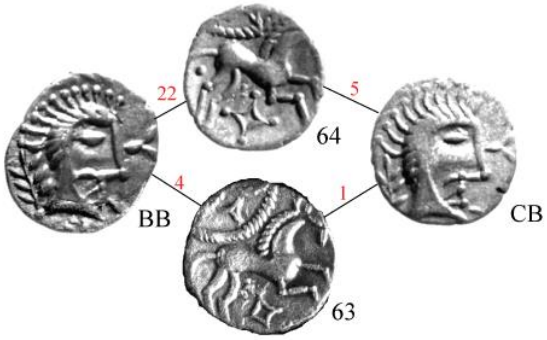
Die WA with re-cutting

Die-group 16



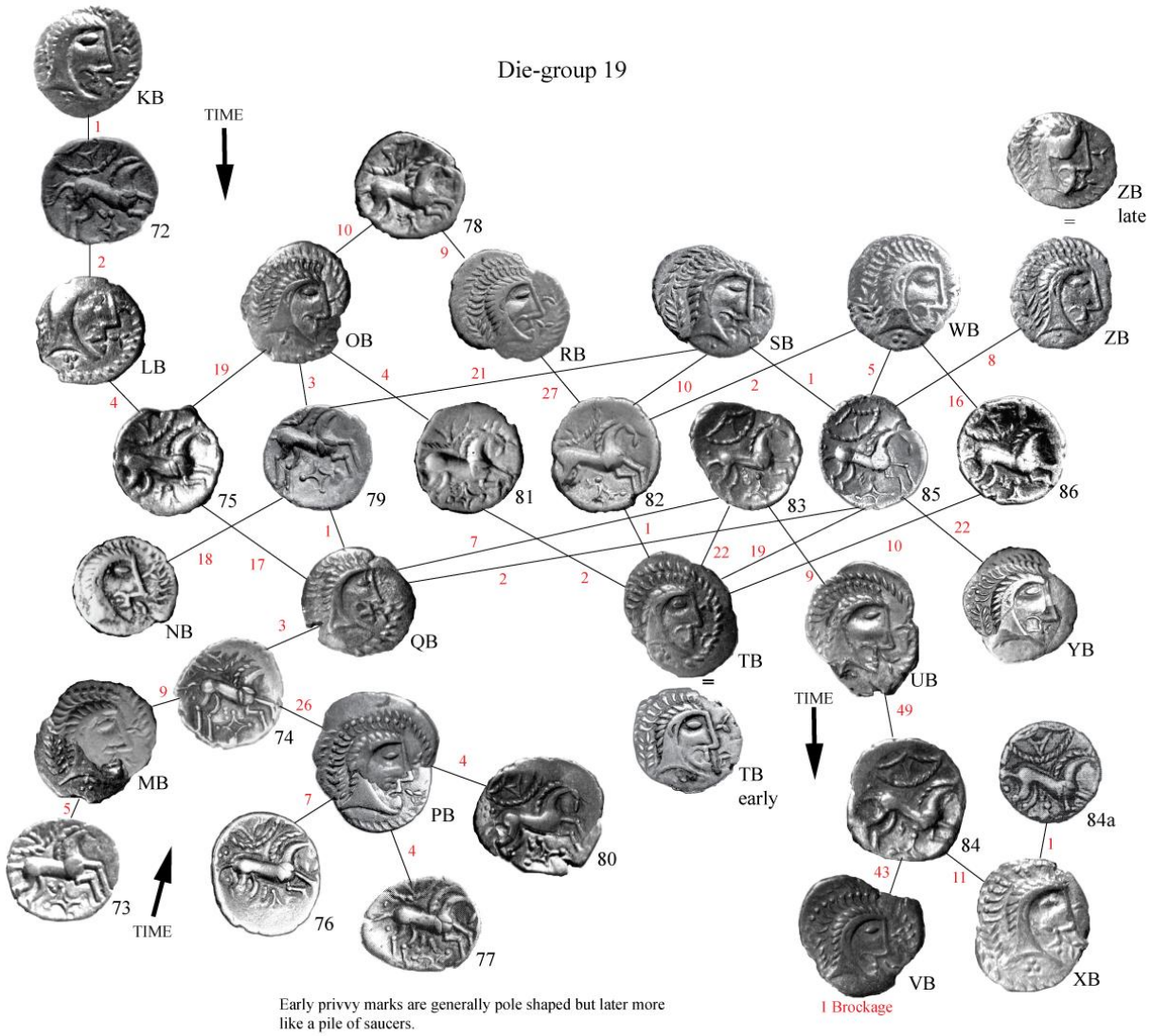
Later state of die

Die-group 17



Die-group 18

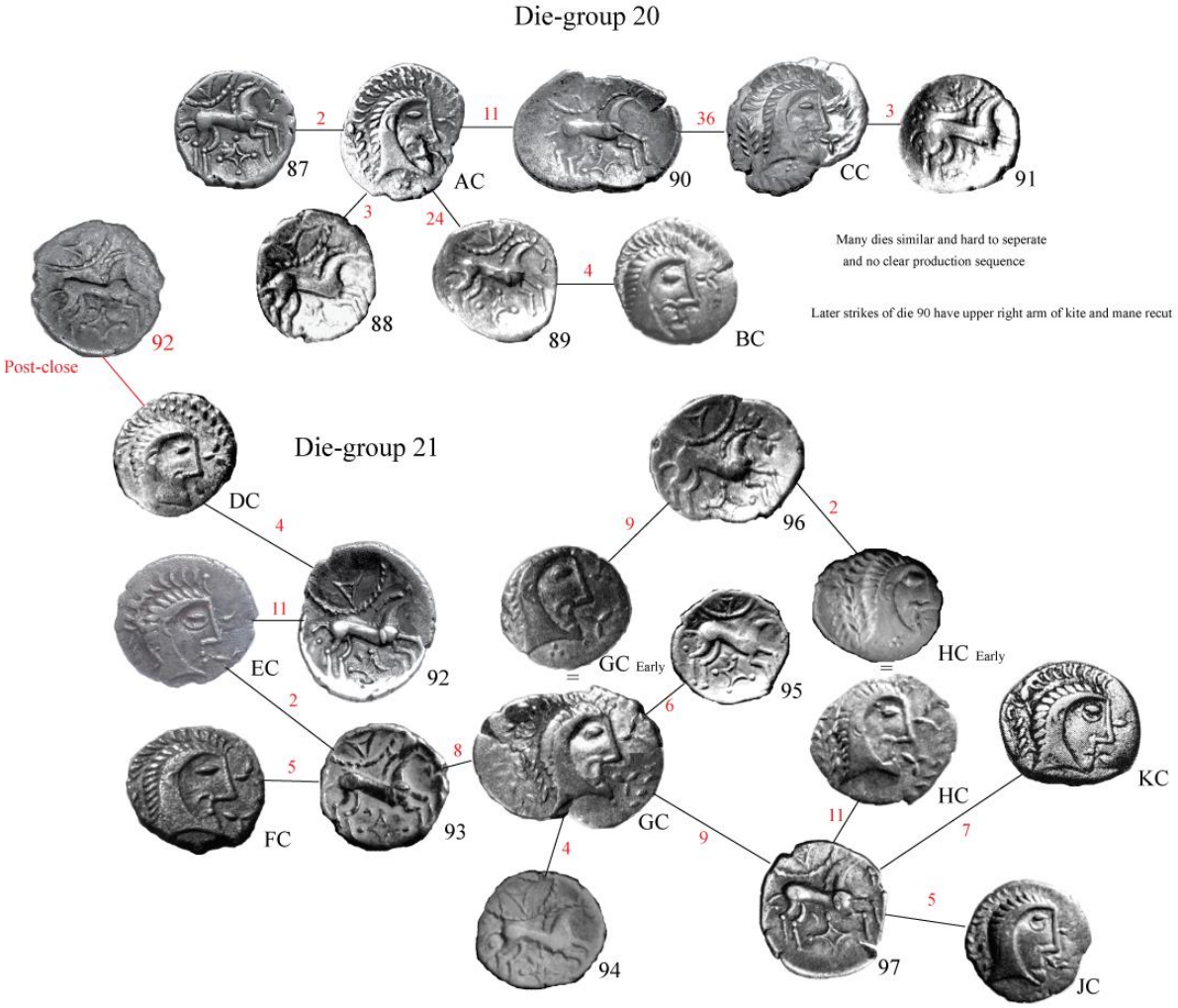
Die-group 19

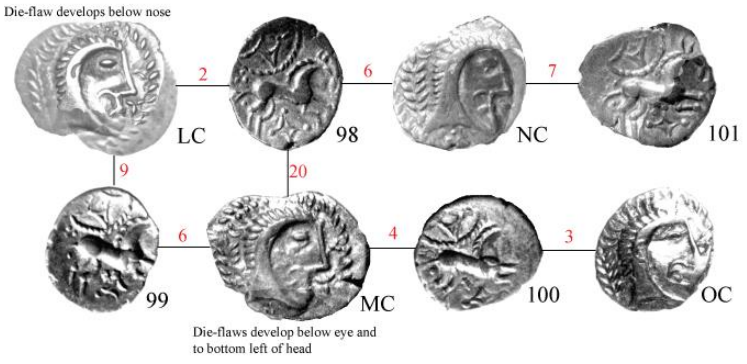


Early privvy marks are generally pole shaped but later more like a pile of saucers.

Many dies appear to be cut by same person such as WB,ZB,VB&RB or 83,85&84 or UB&SB or QB&NB.

LFH Unit sub-set 3 continued





x1.5

LFH plated Units

Appendix 1.48

Definitely plated

Very close/identical to die 1 and close but not identical to die A

Die R19 appears to be recut die R20, main recutting affects front rearleg, trace of old leg remain, and upper edge of triangle in device above horse.

Relatively close to die 75

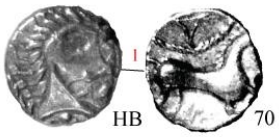
Post close

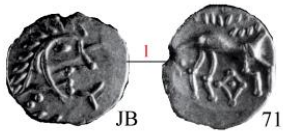
Very close if not identical to OB 78

Very likely plated

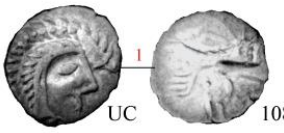
Obverse poor

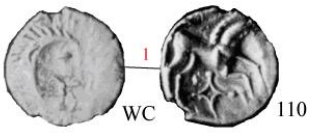
Unusual pairs and small groups including Iron Age and possibly modern forgeries





Post-close example confirms plated)



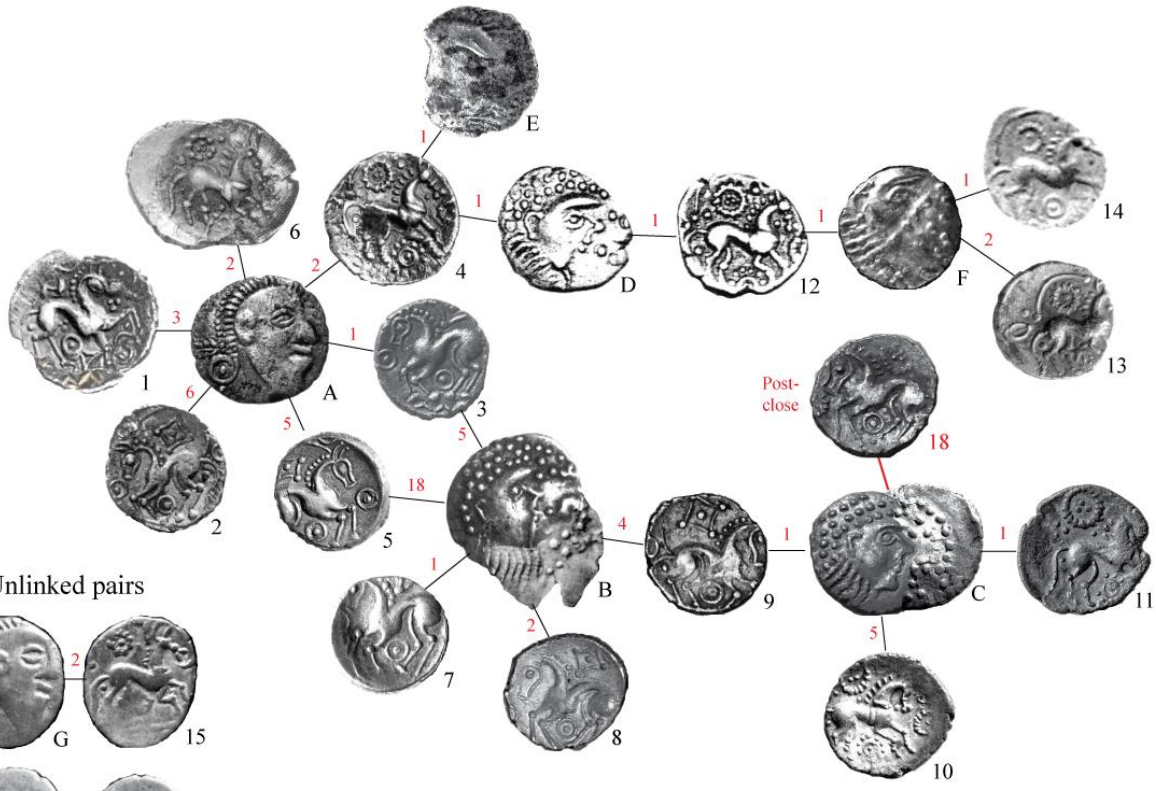


Three coins from Ditchingham 87 0546-8 were described as plated or likely plated but all are from known dies and I believe these are genuine coins with corroded areas which leave the original surface having areas of loss around the edge making the central areas look like plating.

x1.5

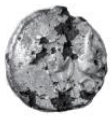
Saham Toney Unit

Appendix I.49



Unlinked pairs

Saham Toney Quarter Stater



Reverse of plated Quarter Stater

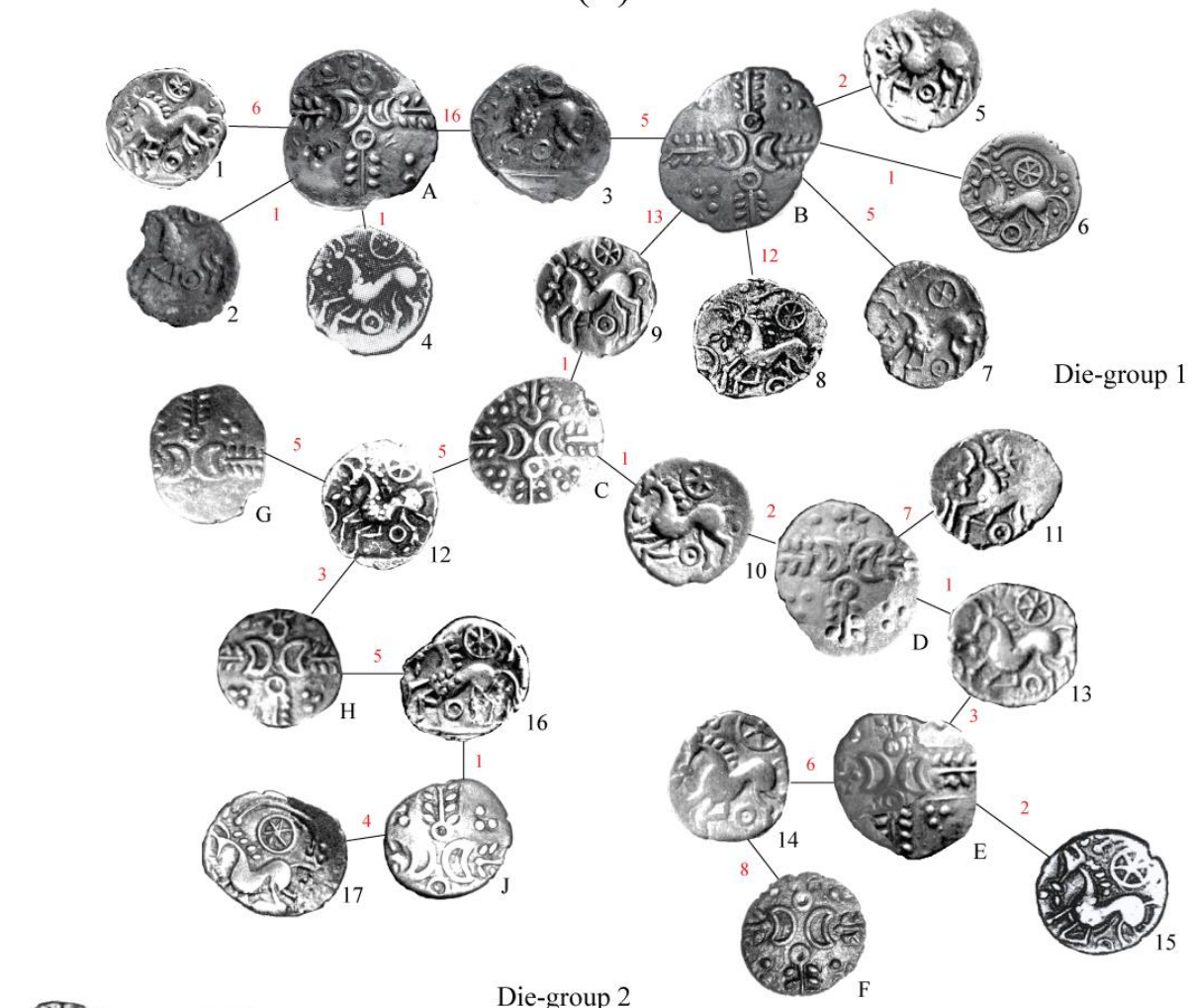
Saham Toney Half Unit

Type 1 Type 2

x1.5

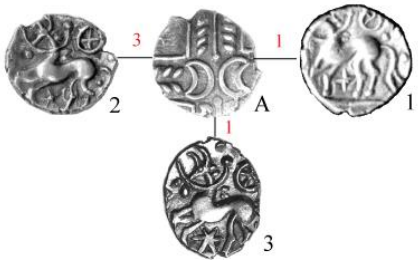
EPH(B) Unit

Appendix I.50

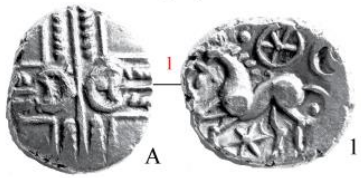


EBH(B) Half Unit

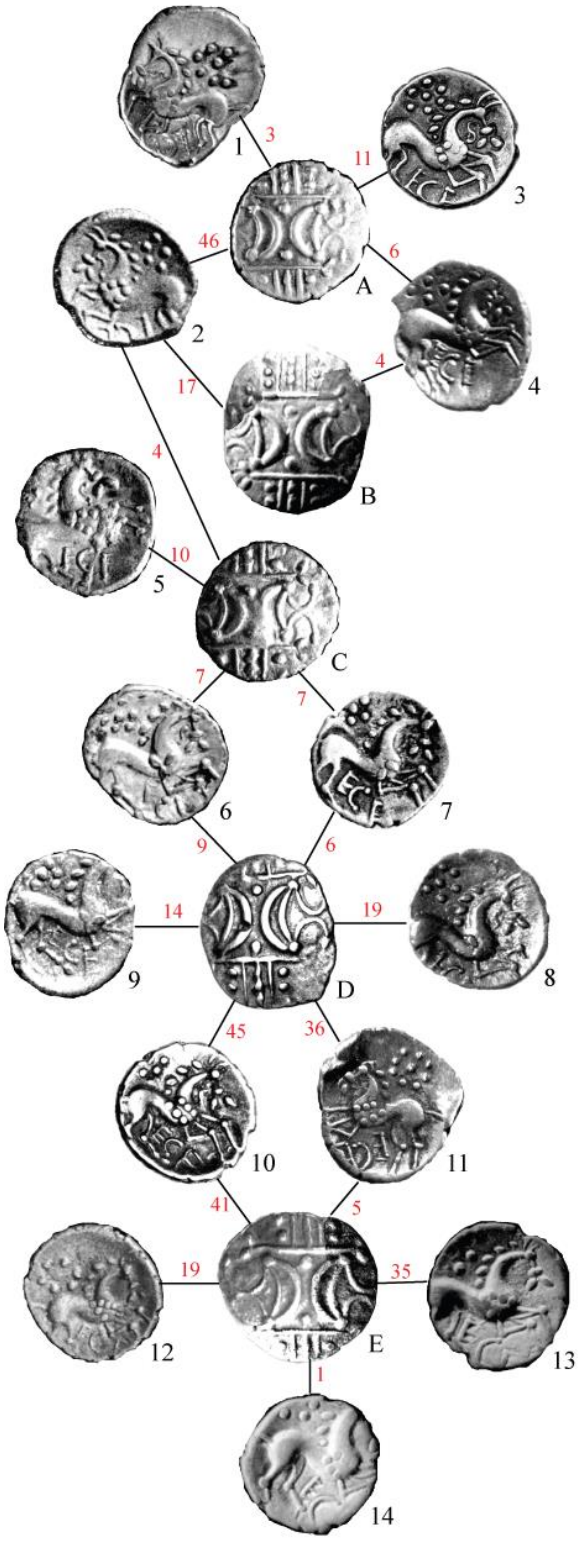
EPH(B) Quarter Stater



EPH(B) Stater



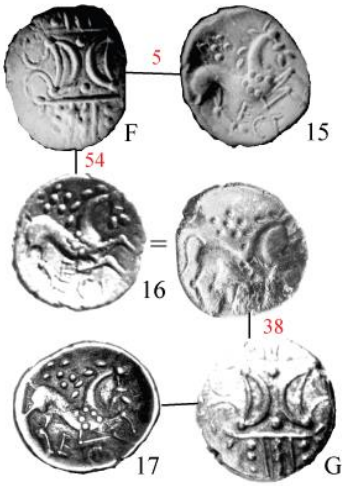
Die-group 1



Die-group 4 Aesv & Saenv

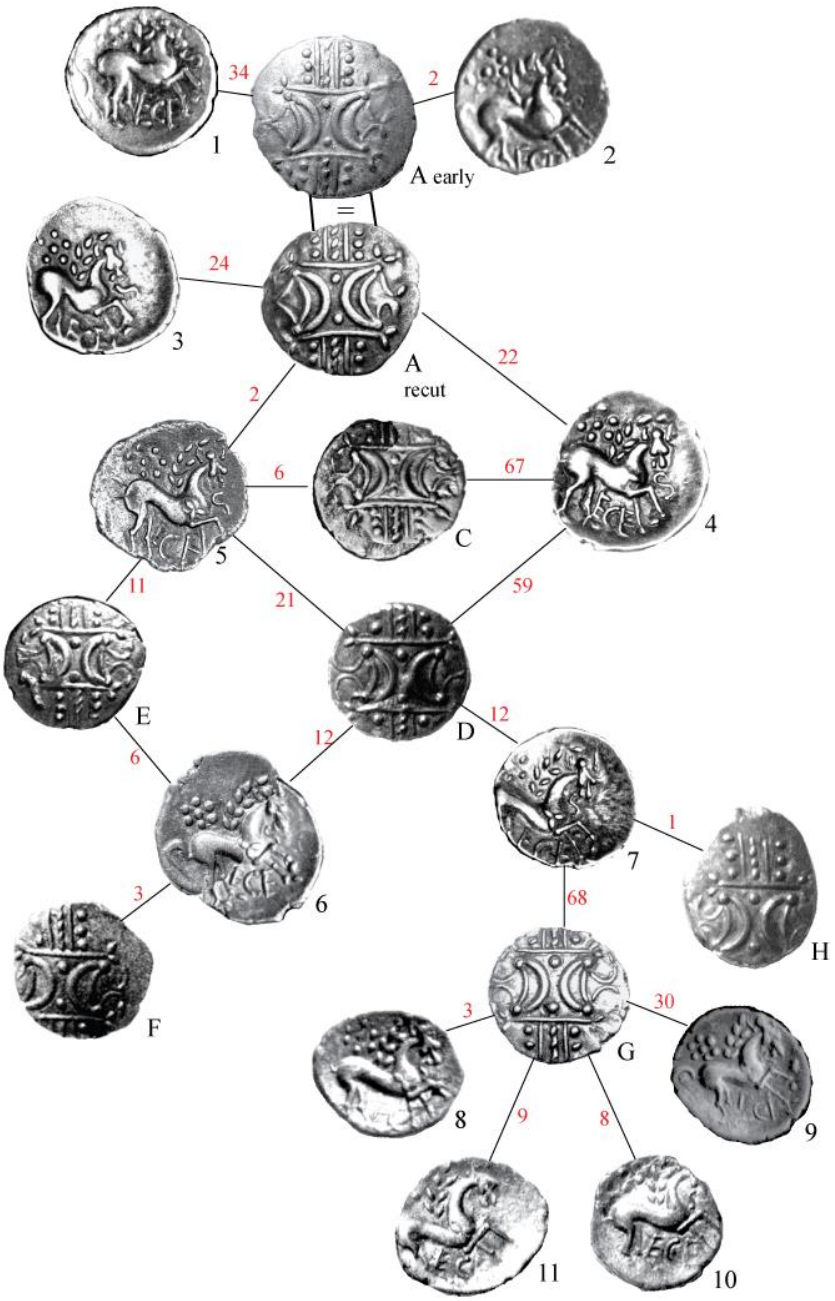
Die sA die-links to Ecen die 1 via 95 1958
probably a hubbed forgery

Die-group 2



Die-group 3

All coins in this die-group are deeply dished

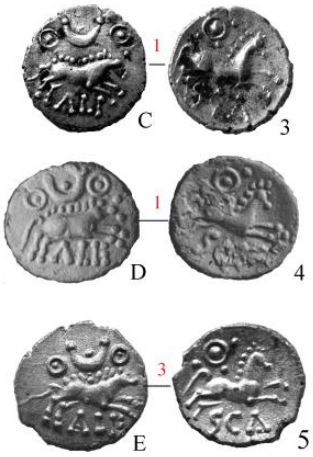

34
2
1
A early
2
=
24
3
A
recut
22
2
6
67
5
C
4
11
21
59
E
D
12
12
6
7
1
6
3
68
H
F
3
30
G
8
9
8
9
11
10

x1.5

Ale Sca Unit

Appendix I.53

"Scavo" die-group

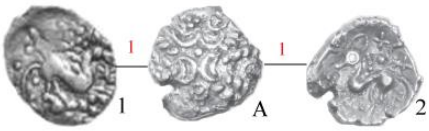


Plated

EsvPrasto Unit

Mildenhall Half Unit

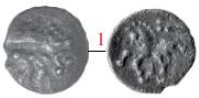
Mildenhall Quarter Stater



Uncertain coins likely to be later Icenian

Scale unknown

Possibly a Half Unit related to Ece B



Half Unit found in Norfolk obverse may show a boar, below the horse appears a symbol

Appendix II Descriptions of early local period coinage types

This appendix starts with descriptions of the Ingoldisthorpe Stater and Quarter Stater which supplement the information given in 2.2.4 and includes more detailed information on weight and metal analysis. The main part of the appendix provides a written description of each type of the early local period together with statistical information on die-groups and weight. The smaller issues included at the end of the appendix include a few which may postdate the start of denominational coinage. This catalogue is intended to supplement the information in Chapter 2 and to be read in conjunction with the photographs in Appendix I. Each section relates to a type of coin and the heading includes the location of the die images in Appendix I, these locations are not repeated each time an identified die is discussed. A photograph of a typical example of each type is included in each section; unlike in Appendix I these are not to scale.

II.1 Ingoldisthorpe Stater (I.1)

The obverses of Ingoldisthorpe and Westerham Staters are similar to early GB C Stater obverses. Figure II.1 shows a British A1 die which struck both Ingoldisthorpe and Westerham Staters alongside a GB C obverse (from Sills 2003: 228, figure 75).

Figure II.1. Die B of British A1 (left) and GB C die 18 by Sills (right)

The direction of the wreath on all British A1 Staters is the reverse of that on both GB C Staters and South Thames Westerham Staters. The direction of the wreath is probably a conscious distinguishing feature between North and South Thames coinages.

Figure II.2. From left: Ingoldisthorpe reverse dies 4 and 12 and GB C die 32

The right-facing horse of the Ingoldisthorpe reverse is similar to that of GB C as shown in Figure II.2 (the GBC is from Sills 2003: 228, figure 75). It is much more decorative and sophisticated than that of the Westerham Stater (Figure 2.4). It also has additional decoration not seen on GB C. The ornate exergue of the Ingoldisthorpe reverse, seen on die 12 of Figure II.2, is similar to that of the GB E Stater, but is more decorative than seen on either GB C or Westerham Staters. Other decoration on the Ingoldisthorpe Staters not seen on Westerham or GB C Staters include a small pelleted ring and dot above the horse on dies 4, 6 and possibly 13, and three or four wavy lines radiating from a small ring before the horse's foreleg on dies 4 and 6, and probably others.

Die-group 2 comprises a single obverse and two Ingoldisthorpe reverse dies. The reverse dies, 11 and 12, from this small die-group lack the pellet rosette above the horse. On die 12 certain upper pellets are linked, evoking the arms of the rider seen on Gallo-Belgic Staters; die 11 may show a residual human figure to the upper left of the horse.

Stylistically this small die-group is closest to the Gallo-Belgic coinage and may be earlier than the other dies.

Weight

Table II.1 shows all the known weights of Ingoldisthorpe and Westerham Staters from die-groups 1 and 2. It implies a target weight for the Staters of between 6.35g and 6.5g.

Grams	Staters
6.59–6.55	000
6.54–6.5	00000000000
6.49–6.45	00000000000000000000
6.44–6.4	0000000000000000000
6.39–6.35	000000000000000000000000
6.34–6.3	00000000000
6.29–6.25	00000
6.24–6.2	0000

Table II.1. Weight distribution of British A1 Stater

Both die-groups probably had a similar target weight. The average for die-group 2 is 6.47g and die-group 1 is 6.41g, but the heaviest individual coins are from group 1. There is no significant difference in weight between Ingoldisthorpe Staters and Westerham Staters, which have average weights of 6.44g and 6.4g respectively.

Metal analysis

Metal analysis shows that Ingoldisthorpe and early Westerham Staters have a similar metal content. This is similar to the GB E coinage but more debased than GB C. Later Westerham Staters became more debased. Known tests are shown in Table II.2; the British results have been provided by John Sills (pers. comm.) and those of GB C and GB E are from Northover (1992: 282).

	Die-group	Coins tested	Au % (SD)	Ag % (SD)	Cu % (SD)
A1 Ingoldisthorpe	1 & 2	3	57.3 (4.2)	34.1 (0.2)	8.4 (3.9)
A1 Westerham	1	7	59.6 (9.6)	30.4 (8.0)	10.0 (2.1)
A1 Westerham	Not 1 & 2	3	45.1 (1.3)	39.7 (0.8)	14.9 (0.7)
GB C		5	71.5 (2.7)	22.7 (1.5)	5.6 (1.9)
GB E		12	59.0 (4.0)	30.6 (2.0)	10.3 (2.2)

Table II.2. Metal analysis of British A1 and GB C and E

II.2 Ingoldisthorpe Quarter Staters (I.1)

As discussed in 2.2.4 the Ingoldisthorpe Quarter Stater is clearly based on the Gallo-Belgic Quarter Stater GB D. In first identifying this type, Sills convincingly argued that its design is a more sophisticated and elaborate version of the GB D prototype, reflecting the way that the Stater related to GB C (Sills 1998).

Table II.3 shows the weight of Ingoldisthorpe Quarter Staters to be unusually variable. Most examples are below 20% of the weight of the Stater which appears to have had a target weight of 6.35g to 6.5g. It is possible that this Quarter Stater is similar to later Icenian coinages where the Quarter Stater is actually a fifth of a Stater (4.3.3), although unlike those later coinages there are a minority issued at a fourth of a Stater.

Grams	Ingoldisthorpe
1.54–1.5	00
1.49–1.45	000
1.44–1.4	
1.39–1.35	
1.34–1.3	0
1.29–1.25	00000
1.24–1.2	00
Below 1.2	0

Table II.3. Weights of Quarter Staters

Early local coinage

II.3 JA Stater (I.2–3)

Figure II.3. JA Stater from dies K:11

The obverse (Figure II.3) has a right-facing abstracted head derived from the less abstracted GB A via GB C (see 5.3). Below the head is a fibula like device which is derived from a similar feature of GB C (Figure 5.2) and is discussed below. The right-facing wolf and other iconography on the reverse is discussed in 5.3.2; other aspects are discussed below.

There is a pellet and crescent below the wolf on all dies except die 1, where there is just a single pellet. The crescent is often joined tangentially by a smaller crescent (see for example dies 11, 13 and 24); Figure II.4 shows the best example which is on an early JB Stater die.

Figure II.4. Additional crescent on JB die 1

The appearance and arrangement of small pellets, immediately below the wolf, appear to be die-group specific. The wolf's tail is a well-defined single line and under the tail on at least five of the dies is a small pair of pellets.

The wolf stands on a line of pellets. Below this, on many dies, is an exergual design of alternately upright and inverted torc-like semi-circles with a central pellet in each arc. This form of exergue is also seen on GB E Staters. It appears that some, but not all of the final reverse dies (for example 19 and 21) in die-group 5 have a plain exergual line without additional detail below.

Figure II.5. Variants of 'fibulae'

The four die-groups divide into three distinct varieties based upon the form of the fibula on the obverse, shown in Figure II.5, and the arrangement of the very small pellets below the wolf on the reverse:

- Die-group 1 - with the exception of irregular die A, all dies have variant 'a' fibula with the handle-like feature to the right. The reverse dies have no tiny pellets below the wolf.
- Die-group 2 - there is only a single obverse die and three reverse dies. The obverse has the highly elaborate fibula of variant 'b'. Each of the reverse dies has two tiny pellets arranged vertically to the left below the wolf and two tiny pellets below the tail of the wolf.
- Die-groups 3 & 4 - these have variant 'c' fibulae and two tiny pellets arranged horizontally immediately below the wolf. Certain die-group 4 dies have two

small pellets below the tail of the wolf suggesting that there may be chronological continuity from sub-type B.

The dies of die-group 1 show much more stylistic variation than is usual for an Icenian Stater. Unusual features include:

- Die A is retrograde and crude in style (see discussion in 5.3.1)
- Die E is exceptionally crude in both wreath and fibula design
- Die 1 is the only reverse die in the type without a crescent below the wolf
- Die 5 is the only JA die with two pellets on the back between the crescent and the rear bird, a feature seen on late JB dies from sub-group D

The unusual features of die-group 1 and the scarcity of provenances (only nine of the 24 known coins from die-group 1 are provenanced) initially raised suspicions that some were modern forgeries. This has been extensively discussed with John Sills, who has studied all early British and Gallo-Belgic gold coinages. Whilst I have found the inconsistencies in design listed above to be extremely unusual in relation to Icenian coinage, Sills has found similar inconsistencies in the earliest issues of other British regional coinages. I also arranged for an unusual die-group 1 Stater to be tested by Peter Northover, who concluded that it was genuine. It thus appears that die-group 1 of JA is the first gold coinage produced in the region and that the recorded coins are likely to be genuine.

Dies of the other large die-group, die-group 4, contrast with those of die-group 1 in being well-produced and consistent in design. Later reverse dies of this group may not have the torc-shapes within the exergue. The two dies of die-group 3 are similar to those of die-group 4 to which I expect them to be eventually die-linked. The only coin known of die-group 3 is lightweight and pale in colour, indicating that it is more debased with silver than other JA Staters, and probably from the end of the issue.

At present there are four unlinked die-groups of JA staters but with the exception of die-group 4 the number of recorded coins per die is very low.

Weight

Detailed weight statistics are shown in Table II.4 indicating a decline in weight from die-group 1 to die-group 4. This is also discussed in 2.4.1 and 4.3.1.

	Die-group			
Grams	**1**	**2**	**3**	**4**
6.29–6.25	0			0
6.24–6.2	0000000			00000000
6.19–6.15	00000			0000000000000
6.14–6.1	0000	00		00000000000000000000000000000000
6.09–6.05	00	00		00000000000000
6.04–6.0		0		00000000
5.99–5.95	0			00
5.94–5.9				00
Below 5.9			0	0000

Table II.4. All recorded weights of JA Staters by die-group

Plated Coins

There are only two known LIA forgeries of JA Staters; the best example is clearly based on coins from die-group 2 and is illustrated in I.2. The obverse of the plated coin almost overlays die K with only minor variation, such as the layout of the cross in the centre of the fibula and the fall of the leaves in the wreath. This similarity indicates that the forged die is based on an impression of the original with some re-touching. The other plated coin is in poor condition, its obverse similar to dies from die-group 4 and it has a silver colouration.

II.4 JA Quarter Stater (I.3)

Figure II.6. JA Quarter Stater from dies A:1

The central design of the obverse (Figure II.6) is typical of Gallo-Belgic and early insular Quarter Staters. Sills has convincingly traced the origin of this design to the hair-bar of the head on the GB A Quarter Stater (Sills 2003: 232). The evolution of the design usually results in more animal-like features and this has happened with the JA Quarter which has boar like hairs on the 'back', which are contained by a pelleted line on die B. The JA Quarter Stater differs from those of other British regions in having a simplified mirror image of the 'boar' shape at the bottom of the design (Figure II.7). The outer elements of the obverse design are unclear but appear more elaborate than most other early insular Quarter Staters.

Figure II.7. From left: obverses of GB D, South-Western and JA Quarter Staters

The reverse is similar to the Stater, having a right-facing wolf with large jaws and well defined teeth from which emerges a crescent. The irregular shape to its right of the mouth on the Stater is omitted. There is an almond-shaped ring and pellet to the right of the head and hairs on the back, above which is a crescent and to the right a pellet. There may be a second crescent to the left but this is not fully visible. There are no pellets

beneath the wolf which appears to be standing on a single exergual line. The left of the reverse has not yet been seen. There has been no metal analysis.

II.5 JB Stater (I.4–8)

Figure II.8. JB Stater from dies B:5

The obverse is similar to that of the JA but left-facing and more abstracted, the semi-realistic face sometimes seen on JA Staters is no longer visible (Figure II.8). The pairs of rectangular pellets making up the wreath can either be upright or in an inverted V. The types of fibulae are similar to the simpler form on JA Staters shown in Figure II.5. An ornate, seashell or floral-like design below the fibula on die D is discussed and illustrated in 5.3.1.

The reverse is similar to the JA Stater but with the wolf left-facing and often larger, and there are changes to the surrounding detail: the upper bird is either present in an incomplete form or absent, the right angled shape near the mouth is omitted and the crescent near the mouth is also often omitted. There is usually a pellet-triangle added below the neck.

Group	No.	Obverse dies	Reverse dies	Sub-type	CPD
1	12	1	4	A	4.8
2	1	1	1	A	1.0
3	4	1	2	A	2.7
4	13	1	5	A	4.3
5	2	1	1	A	2.0
6	2	1	2	A	1.3
7	2	1	1	A	2.0
8	61	2	7	A	13.6
Subtotal	**97**	**9**	**23**	**A**	**6.1**
9	**13**	**1**	**3**	**B**	**6.5**
10	7	1	3	Ci	3.5
11	8	2	3	Ci	3.2
12	10	1	6	Ci	2.9
13	5	2	2	Ci	2.5
14	3	1	2	Ci	2.0
15	1		1	Ci	2.0
Subtotal	**34**	**7**	**17**	**Ci**	**2.8**
16	**157**	**2**	**23**	**Cii**	**12.6**
17	11	3	2	D	4.4
18	79	4	12	D	8.7
Subtotal	**90**	**7**	**14**	**D**	**7.7**
Poor	5				
Total official	396	26	80		7.3
Plated	67				
Total	463				

Table II.5. Die-groups for JB Stater

There are 18 die-groups which are divided into four sub-types as shown in Table II.5. Stylistic variation is often specific to particular sub-types or die-groups. This is discussed below, together with information about the distribution of the die-groups not included in 2.4.2.

II.5.1 Sub-type A

The reverse dies of this sub-type have additional design elements around the wolf and are very variable and complex. They are readily distinguishable from other sub-types. A particularly complex die is shown in Figure II.9.

Figure II.9. Heavily decorated JB die 18

The evolution of the reverse design mainly affects the elements below the wolf:

- The earliest die is a left-facing version of the JA Stater; it shares the two small pellets and large pellet with an adjacent crescent below the wolf. On the JB Stater there is added a spiral below the wolf's head and small pellets above its back (see Figure II.10).
- The two small pellets immediately below the wolf first disappear and are then replaced by a pellet-triangle.
- The crescent adjacent to the large pellet disappears.
- The pellet-triangle below the wolf disappears and the lower design gets more complex, often with a small crescent and pellet and other detail which may include spirals, pellet-triangles and diamond shapes.
- In the final die (21), an S shape appears below the large pellet under the wolf. Die 17 of the same die-group has two small S's below the wolf's tail which are probably related to the similar decoration on sub-type B, discussed below.

Figure II.10. Similarity between JB die 1 (left) and JA die 24 (right)

The obverse dies are also more decorated than those of other sub-types. Pellet-triangles are inserted into the design and some dies, such as dies H and J, have pellet-decoration in the open crescents representing the facial elements of the design.

Sub-type A is composed of eight die-groups, but 11 of the 22 reverse dies are known from only a single coin. This implies that dies and die-links remain to be discovered and that several die-groups may eventually consolidate. As an example, it is likely that die-group 6 will prove to be related to the beginning of die-group 8, to which it has strong stylistic links. The distribution of sub-type A Staters is shown in Figure II.11. Sample sizes are small, but die-group 1 appears biased towards north Norfolk and die-groups 2, 4 and 5 appear focussed on the Waveney valley around Needham. The other die-groups are more widely dispersed.

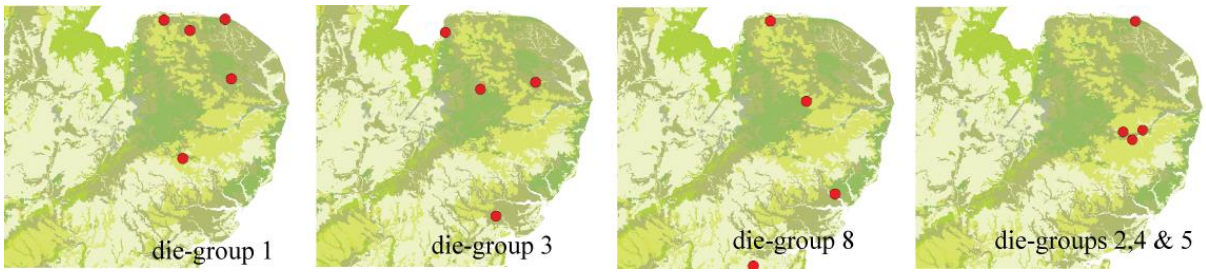


Figure II.11. Distribution of JB A die-groups

II.5.2 Sub-type B

This is the smallest sub-type, comprising only die-group 9. The reverse dies of the die-group are unusual in having small pellets above the upper crescent, and a ring of small pellets around the large pellet immediately below the wolf. The original decoration below the large pellet on die 22, the earliest, was a pellet-triangle motif which was subsequently overcut with an elongated S which was also used on die 23 (possibly also a recut die). As yet no examples of die 24, the final reverse in the group, have become available which show the relevant area in full. One early strike appears to show the upper elements of a

pellet-triangle. The re-cutting of die 22 and the similarities between the recut die and die 23 are shown in Figure II.12.

Figure II.12. JB die 22 before and after re-cutting and die 23 (right)

Sub-type B has a southern distribution, as shown in Figure 2.11. It is probably a small local issue of late JB Staters which may have adopted the S motif at the same time as sub-type A. The un-amended die 22 shows similarities to sub-type C dies; it is possible that one or more of the die-groups in sub-type Ci may eventually be found to belong in sub-type B as the precursor to die-group 9.

II.5.3 Sub-type C

This sub-type is not fully resolved; it is split into Ci which has five smaller die-groups and an unlinked single die and sub-type Cii which comprises only the very large die-group 16.

The decoration below the wolf consists of a large pellet under which is usually a pellet-triangle. On some dies the pellet-triangle is missing and in at least one case it is replaced by four pellets, a feature of sub-type D dies. The dies without the pellet-triangle often occur earlier in die sequences, such as 42, 46 and 48 in die-group 16, die 26 in die-group 10, and 31 and possibly 33 in die-group 12. This implies that some die-groups within the sub-type were issued in parallel.

Most obverses are unremarkable; the wreath is either upright or reversed but this does not seem to have any significance as both forms are present in the same die-group on two occasions (die-groups 11 and 13).

Die 25, the first of die-group 10, has a right-facing reverse as if it were a JA die. This die is linked, through obverse L, to two typical sub-type C reverse dies. One of these, die 26, has no pellet-triangle although it has possibly been amended in the area where the triangle would be. The general design of die 25, including the style of the rear bird as well as it's pairing with a left-facing obverse, implies that it should be viewed as a right-facing JB rather than a JA Stater. Obverse die L, is unique in incorporating ring and pellet decoration as shown in Figure II.13.

Figure II.13. The ring and pellet decoration on die L

The distribution of the die-groups within Ci is shown in Figure II.14. This hints at variations in distribution between the die-groups, but sample sizes are too low to be conclusive.

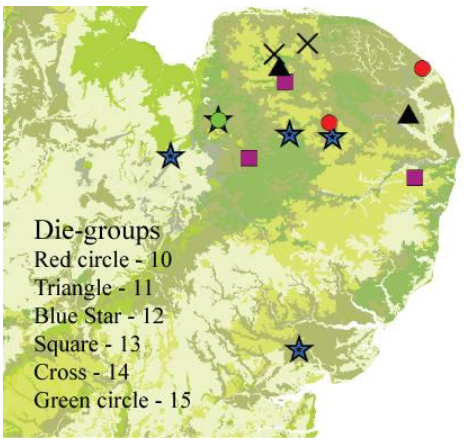


Figure II.14. Distribution of early JB sub-type C die-groups

The chronology of the Ci die-groups is uncertain but the earliest was most likely to be die-group 10, which starts with the only known right-facing JB reverse. This die-group probably postdates the earliest die-groups of sub-type A, the recorded weights of which are slightly higher.

Sub-type Cii comprises 23 reverse dies but only two obverses, T and U, with T being used until its detail was almost entirely worn away. Coins from this die-group are frequently irregular in shape, very debased and light in weight; many appear to have been produced rapidly, without the normal level of care. It is possible that some of these irregular coins may be forgeries. It is frequently hard to identify the contemporary forgeries of this die-group, as many were struck using a worn obverse die (F1), which is almost identical to late-states of die T, and reverse dies which are also very similar to official dies. Twenty-seven coins have been separated as being ancient forgeries from obverse die F1; others may not have been identified and may account for some of the light-weight official coins.

Although it is clear that die-groups 10 and 11 are early and the large die-group 16 is late, I have been unable to clarify the ordering of the remaining die-groups. I also suspect that some of the die-groups within sub-type C may actually belong to sub-types B and D.

II.5.4 Sub-type D

This sub-type is easily identifiable as its fourteen reverse dies have two pellets along the back of the wolf, to the rear of the crescent, rather than the usual single pellet. All reverse dies portray a similar large, static wolf and it appears likely that many of the dies are made by the same hand. Under the wolf is a single large pellet, below which are four small pellets forming a square or a diamond.

The weight range of 4.79g to 5.55g is the lowest of the JB type and the coins are heavily debased with a copper content averaging 52% (Table 4.17). Because the Staters are so debased it is difficult to identify cores and some contemporary forgeries may be included in the analysis as official coins.

Weight

Later JB Staters are not only lighter in weight but also have a wider range of weights than the earlier strikes. This can be seen clearly in Table II.6 and Table II.7.

	Die-group											
Weight	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**10**	**11**	**12**	**13**	**14**
6.09–6.00	0											
5.99–5.90				0								
5.89–5.80	000		0	00000				0	0000			
5.79–5.70	00		0	00				0000		0	0000	
5.69–5.60				00				00	00	00		
5.59–5.50		0								00		
5.49–5.40						0	0					
5.39–5.30							0					
5.29–5.20												
5.19–5.10												
5.09–5.00												0
4.99–4.90					0							
4.89–4.80			0									
Below					0							0

Table II.6. Weights of earlier JB die-groups

	Die-group				
Weight	**16**	**17**	**18**	**8**	**9**
6.09–6.00				0	
5.99–5.90	0000				
5.89–5.80	0			0	
5.79–5.70	0000000000000			000	0
5.69–5.60	00000000000000000000	0		0000000	
5.59–5.50	0000000000000000000000000000	00	000000	000000	
5.49–5.40	00000000000000		00000	0000	
5.39–5.30	0	0	000000000	000	
5.29–5.20	000000000000	0	000	0000	00
5.19–5.10	00000		000	00000	0
5.09–5.00	00000	0	0	000	0
4.99–4.90	000000		00	00000	0
4.89–4.80	0000000		0	00	
4.79–4.70	0		0	00	
4.69–4.60	00		000	0	
4.59–4.50	00				
4.49–4.40		0	0000		
4.39–4.30			00		00
4.29–4.20	00		000		
Below	0		000	0	

Table II.7. Weights of individual coins from later die-groups

I was concerned that the range of weights in the later die-groups may have been caused by the greater vulnerability to corrosion of the later, more debased Staters. The Ashby St Mary hoard provided an opportunity to examine weight versus chronology in a group of Staters in excellent condition from the same deposit as shown in Table II.8. This has revealed a decline in weight during the course of production of die-group 8, confirming that the variability of weight in later die-groups was not solely a matter of corrosion.

Die combination	Sample size	Average weight
F : 16	17	5.53
F : 18	9	5.06
F : 20	4	4.95

Table II.8. Average weight of die-group 8 dies in Ashby St Mary hoard

An analysis of all known weights of die-group 8 Staters revealed a similar chronological decline in weight.

Plated JB Staters (I.8)

Many plated JB Staters are almost identical to specific official dies, and seem to be struck from either the official dies themselves or very close copies. The weights of official coins are unusually erratic and this, coupled with the debased nature of many later JB Staters, makes it difficult to separate plated from official coins.

The plated Staters fall into three categories:

1. Those seemingly struck from official dies; these form the majority of the Staters thought to be plated and often have a silver appearance. These do not appear to be hubbed from individual coins and are hard to separate from official coins. Nineteen such coins were in the Hunstanton II hoard and are discussed and illustrated in 6.4.3.
2. Those struck from dies which appear to have been created for the production of plated coins, without closely copying a specific official die. Only five reverse dies fall into this category (R1 – 5), three of these being paired with obverses which are similar to official dies.
3. A group of very base coins struck from 5 reverse dies (P1 – P5), which have features not seen on any of the official dies. These have a large pellet below the wolf surrounded by small pellets, below which are three large pellets; the

former is seen on dies in die-group 9, but the large three pellets are otherwise unknown. None of the obverses reveal any detail, and they appear to have been struck from very worn or blank dies. One of the coins shows definite signs of plating (J1170 struck from P1), the remainder have the appearance of base cores. It is possible, but unlikely, that this group of dies is a very base official variety of JB Stater.

The plated Staters can be summarised as shown in Table II.9.

Category	Sub-type	No. of reverse dies	Coins
1	A	4	6
1	Ci	1	1
1	Cii	5	29
1	D	2	8
2	Ci	3	3
2	D	2	2
3		5	8
Poor			10
Total			67

Table II.9. Plated JB Staters

II.6 Bury A (I.9)

Figure II.15. Bury A from dies B:3a

The obverse (Figure II.15) has a realistic left-facing head, wearing a diadem. This has a chain-like decoration on its surface and a crescent at front and back. Above the diadem the

hair is represented by distinctive ringlets. The eye is pronounced and open and there is a strongly defined ear behind which are two locks of hair; the shape and angle of these are diagnostic for die identification. The neck is defined and a pronounced curved, sometimes pelleted, line marks the base of the bust. There is a two headed 'serpent' forming a reversed S before the face, and a small hook-like form projects forward from the base of the front of the diadem. This appears to suspend the serpent which it touches on some, but not all, dies. Visible on a few dies, such as E, is an outer pelleted-border rising up from the right of the base of the bust.

The realistic horse faces left; its mane is made up of small S shaped devices which also form a cross to the left of the horse. There is a large pellet below and a pellet with pellet ring above, partly encircled by four or five smaller pellets or rings. There are subtle differences between the reverse dies, such as the presence or otherwise of a ring immediately above the back of the horse. This has no chronological significance and any other significance is not discernible. The general style and look of the horse is very similar to those seen on North Thames Whaddon Chase Staters as illustrated in Figure 2.14. A further link to the Whaddon Chase coinage is revealed by Bury A die 2, the only Bury A die which has a wing-like device above the horse. The device is also seen on Whaddon Chase Staters and is later seen on Icenian Snettisham Staters as shown in Figure II.16. Bury A die 2 is not die-linked to other reverses and its place in the chronology of Bury A is uncertain, but it is probably late.

Figure II.16. From left Bury A die 2, Snettisham Stater die 4 and Whaddon Chase Stater

The unlinked pair of dies G:9 are stylistically different to the other Bury A dies. The reverse has an unusually energetic horse, reminiscent of certain Bury C dies. There are three known coins but only one has a provenance, which is near Ipswich. It is possible that the three coins are plated, although none are recorded as such.

Die-group	No	Obverse dies	Reverse dies	CPD
1	21	1	3	10.5
2	135	5	8	20.8
Unlinked	16	6	6	2.7
Subtotal	172	12	17	11.9
Plated	9	3	4	
Total	181	15	21	

Table II.10. Die-groups for Bury A

As shown in Table II.10, coins from die-group 2 are especially common and the average of almost 21 known coins per die for these Units is only exceeded by the coinages found in the Boudiccan revolt hoards. Bury A is the heaviest Icenian Unit and the commonest of the early Units. New examples are regularly seen with dealers and on eBay. There is no significant weight variation between the two main die-groups but coins struck from the unlinked pairs of dies are slightly lighter.

A number of plated dies probably reflects the contemporary importance of the type and that it was in use for an extended period. The only die-link within the plated coins is in respect of obverse PC which is paired with two reverse dies F3 and F4. None of the plated coins are struck from hubbed or official dies and the four plated reverse dies are closest in design to, and are probably based upon, the very common official die 3.

A combined map of all Bury A finds is shown in Figure II.17; this reveals a weak northern and fen edge distribution. There are several recoveries from Snettisham and the

immediately surrounding area, and a clear central focus in the region of Saham Toney and Crownthorpe.

Figure II.17. Bury A distribution

II.7 Bury C (I.10)

Figure II.18. Bury C of sub-type 2

Bury C is composed of two sub-types with differing distributions (2.5.1); both have a right-facing head on the obverse and a left-facing horse on the reverse as shown in Figure II.18. Key statistics are shown in Table II.11.

Sub-type	No	Obverse dies	Reverse dies	CPD
1	28	8	9	3.5
2	14	1	2	9.3
Subtotal	42	9	11	4.2
Plated	0			
Total	42	9	11	

Table II.11. Bury C sub-types

II.7.1 Sub-type 1

The right-facing head wears an ornate helmet which covers the ear. At least three of the dies have four large pellets before the face; others have less with probably a single pellet on dies B, C, D and H. The derivation of the obverse from the head of Roma seen on Roman Republican Denarii is discussed and illustrated in 5.4.1.

The realistic horse on the reverse faces left and, where visible, the tail comprises a line with a shadowing row of elongated S shapes similar to those making up the mane of the Bury A. The mane is comprised of a line of elongated pellets but otherwise the horse is similar to that of Bury A. There are two varieties of detail in the field:

- A multi-spoke wheel with other smaller pellets above the horse and a larger pellet below the horse, all evocative of Bury A. There is a design before the horse which has not yet been fully revealed but which seems likely to be a three or four armed spiral. Die 9 differs in having a small triskele adjacent to the pellet below the horse with the three arms composed of the elongated S shapes.
- A small pellet and two small rings below the horse and a number of similar elements above plus a rather crude deeply cut oval shape which appears to be a punched or cut into the die after its original creation. On die 7 this can be seen to overlay the edge of a ring and for die 3 the previous design is partly visible on an early strike from the die. The re-cutting is discussed in 5.4.3. Before the horse on die 3 are four small rings which make up the centre and what may be three arms of a cross, except that on the only two dies where the area to the left can be seen, there appears to be a more complex symbol.

II.7.2 Sub-type 2

The obverse varies from sub-type 1 by having a pellet-triangle between the ear and eye in place of two locks of hair, and in having an outer border on the die made up of alternating pellet and arcs.

The reverse is similar to the variety ‘a’ of sub-type 1. However the large upper ring contains seven pellets forming a rosette, rather than spokes, and below the line of the tail are single pellets rather than elongated S’s.

Weight

Table II.12 reveals no difference in likely target weight between sub-types 1 and 2.

	Sub-type	
Weight	**1**	**2**
1.49–1.45	000	0
1.44–1.40	00	0
1.39–1.35	00000	000
1.34–1.30	0	000
1.29–1.25	000	0
1.24–1.20	0	0
1.19–1.15	00	0
Below 1.15	00000	0

Table II.12. The weight distribution of Bury C sub-types 1 and 2

II.8 Bury B (I.11)

Figure II.19. Bury B from dies B:2

As shown in Table II.13 there are a number of die-groups making up Bury B, some of which may have differing distributions (2.5.2).

Die Group	No.	Obverse dies	Reverse dies	CPD
1	13	2	3	5.2
2	16	1	5	5.3
3	71	3	15	7.9
4	4	1	2	2.7
5	4	1	2	2.7
Unlinked	7	2	3	2.8
Very poor	2			
Subtotal	117	10	30	5.8
Plated	2	2	2	
Total	119			

Table II.13. Die-groups for Bury B

The obverse has a right-facing diademed head which is rather more stylised than that of the earlier Bury A and Bury C types. The prototypes for the head are discussed in 5.4.1. There are five torc-like braids of hair rising from the diadem and a large pellet at either end. A snake-like projection rises from the rear pellet which is similar to that on Bury C and derived from the head of Roma on Roman Republican coinage. The ear is covered by a spiral-like guard, also based on the Roma head via Bury C, there are ‘ringlets’ between the ear and nose and one in front of the nose. That in front of the nose is a key component in creating the Chimirri Russell effect visible on most if not all of the obverse dies of this type (5.4.1). Some dies show a ladder effect on the side of the head (see dies A and B). There are hollow stars before the face.

The obverse dies of die-group 1 are typically struck to display the full face whereas the other groups generally only show the upper part of the head.

The right-facing horse on the reverse has detailed reins, decorated ‘harness’ bands and a leaf-shaped tail. The horse has a realistic head but its overall impact to modern eyes

is more ‘mystical’ than the horses shown on the Bury A and Bury C. There is a large wheel-shape above the horse in various forms. Additional decoration above the horse usually includes a small ring immediately above it and spiral-shapes further out. There is a cross in front of the horse, the arms of which are composed of small S-shapes, as seen on Bury A and other types. There is a hollow star below the horse, sometimes with pellets at the end of each ray. Many dies, such as 4 and 9, show an angled exergue looking like track-marks which rise up to meet the upper rear-foreleg.

Weight

Table II.14 indicates that the target weight for the die-group 3 may have been in the range 1.35g – 1.39g, and it was possibly slightly higher for other die-groups.

	Die-group				
Weight	**1**	**2**	**3**	**4**	**5**
1.55 and over					0
1.54–1.50					
1.49–1.45	00	0	00	00	
1.44–1.40	00	00	000000	0	
1.39–1.35	00	00	0000000000000		
1.34–1.30	0	0	000000000		0
1.29–1.25	0		000000000		
1.24–1.20	0	00	00		
1.19–1.15		000	00		00
Below	0	000	00000000000	0	

Table II.14. The weight distribution of Bury B die-groups

II.9 Bury D (I.10)

Figure II.20. Bury D from dies A:1

The head on the obverse is left-facing with a large eye, a Bury A-like ear and a beard incised into the chin. The hair has a ‘braided’ appearance with a bun-like roll at the rear. There is a small pellet-ended solid triangular device behind the head on both dies and, where visible on die A, the head is surrounded by varying sizes of ring and pellets. There is a line from the mouth to what appears to be a large ring. This is indicative of a Chimirri Russell effect but the full area has not yet been seen.

The horse on the reverse faces left and has a realistic head. On some dies its mane is composed of pellet-ended strokes. It has an ornate bridle detail, a leaf-like tail and distinctive W shaped upper forelegs which are also seen on Plouviez Units and some Snettisham Staters. In front is a pellet in a pelleted ring and below is a ring and pellet. Above the horse are a variety of concentric circle designs, evocative of Bury B, with a few surrounding small ring and pellets.

The style of the horse, including its tail, is similar to that seen on early Units of the Corieltauvi, as illustrated in Figure II.21.

Figure II.21. From left: Bury D reverse, ABC 1785 and ABC 1782

There are fifteen known coins which were struck from two obverse dies and five reverse dies in a die-linked sequence. No metal tests have yet been undertaken. The Unit has west Norfolk distribution and is probably contemporary with Bury B which has a similar target weight and style of reverse.

Weight

The target weight appears likely to be approximately 1.38g as four of the recorded weights falling in the range 1.37–1.39g.

Weight	
1.39–1.35	0000
1.34–1.30	0
1.29–1.25	0
1.24–1.20	
1.19–1.15	00
Below 1.15	00

Table II.15. Weights of Bury D

II.10 Bury E (I.9)

Figure II.22. Bury E from dies C:2

This type is known from only four coins which are struck from four obverse and two reverse dies. There are two different styles of obverse and reverse.

Obverse style 1 (dies A, C and probably B)

The head is right-facing and more realistic in appearance than most other early types. The treatment of the hair is unusual with heavy backward swept braiding. A ‘ladder’ below the ear can be seen on die A, similar to that on Bury B dies A and B. The appearance of the neck is similar to Bury A and Bury C. The field before and below the head is decorated

with large rings containing various motifs; those that can be clearly seen are double pellets and a three-armed device, the others are unclear. Die C appears to have three rows of elongated S's between the ear and the face presumably representing a beard. This die also has a line emerging from its mouth as seen on some other early types such as LFC die C.

There is only a very poor strike on a broken coin from the obverse die B which appears to be left-facing and is probably similar in design to dies A and C, but it does not overlay either of these dies. The few design elements which are visible also show similarities to the front of the diadem and the first lock of hair of a Bury B obverse, but it does not match any known die.

Obverse style 2 (die D)

The head is left-facing head with locks of hair that are swept back behind the ear. From the few details available the design before the face appears similar to Bury A. There are vertical lines below the ear, presumably related to the similar line or lines which occur on Bury A and Bury C.

Reverse style 1 (die 1)

The front of the right-facing horse is not visible on the only known example but appears similar to that of Bury B and Bury D, with which it shares a leaf-like tail. The hooves have a stepped-shape similar to other Icenian types such as Bury D. The mane is unlike other Icenian Units in being composed of multiple hair-like strokes. As on Bury A, both above and below the horse are a large ring and pellet within a pellet ring, and a small additional ring and pellet above the horse. There is also a small cross behind the horse composed of small S's, identical to that on the reverses of Bury A and Bury C. A further device is not fully visible but includes a ring and pellet on the left above the horse, with a sinuous line

rising up and possibly meeting a similar line from the right. This device probably has some similarities with the second reverse style described below.

Reverse style 2 (die 2)

The right-facing horse has a realistic head and a similar mane to die 1. A line emerges from the horse's mouth; little detail is visible but this is probably similar to the 'fire' seen on LFA reverse dies. Immediately above the horse is a crude hollow five-rayed star, with a central pellet visible in the best preserved example. Above the star is a pellet in a ring, or a cog, with wing-like arms rising then falling to either side, each ultimately sweeping up again probably to end in a large ring and pellet. The upper detail is unclear and there seems to be some asymmetry on the only known example which shows this area. At the upper-centre of this large device is a ring with one or more pellets. Below the horse is a ring with two pellets from which two lines sweep downwards. The die is highly decorated and traces of design can be seen disappearing off-flan.

The three examples are widely dispersed across the region (Figure II.23).

Figure II.23. Distribution of Bury E

Several iconographic features of the type are evocative of other early Icenian Units including the hollow five-rayed star and the cross made of small S shapes. Other elements are unusual including the winged-shape above the horse and the method of using S shapes to define a beard, both seen in Figure II.22.

The two recorded weights at 1.11g and 1.18g are low for an early Unit. No metal analysis is available.

There are only 1.3 known coins per die, the lowest survival rate for any Icenian type of which there is more than one example. The type's rarity contrasts with its well dispersed distribution, as scarce types are usually sub-regional in distribution. Three of the known examples share a reverse die implying that this was not a large issue.

II.11 Bury F (I.9)

Figure II.24. Bury F from dies A:2

Only two examples are known which share a common obverse die but have different reverses. They weigh 1.27g and 1.39g and the single provenance is from Bardwell in north Suffolk. Both obverse and reverse dies carry a diamond-like symbol which may be related to that used on the early dies of LFA before it was superseded by the hollow star.

The obverse has a left-facing head with 'braided' hair which rises and sweeps backwards. There is a large eye and a Bury A-like ear. On the forehead is a pelleted band, which may represent a diadem, at either end of which is a pelleted ring; the front ring contains a pellet and the rear, a diamond symbol. The hair appears to end in a lower scroll which contains a cog-like symbol. A line goes out from the mouth to another cog symbol which is itself connected by further lines to at least one but possibly three, outer cogs; this detail appears related that seen on LFC die C. There are beard-like lines projecting forward from the chin as on die E of LFC. There is another diamond symbol before the forehead.

The left-facing horse on the reverse shows reins similar to Bury B; the forelegs appear to have an extra joint as also seen on some Bury B dies. There is a large complex ring device above the horse, also similar to that seen on Bury B, and a cog below the horse similar to that on the obverse. Cog-like symbols are not seen on other early local coinage although they appear on the Snettisham Quarter Stater.

A highly unusual small pellet-ended triangular device is seen above and below the horse's head; this is similar to that seen behind the head on the obverse of Bury D. The diamond device seen on the obverse is repeated both below the horse and in an upper pellet ring on die 2. An unusual device before the horse has two elaborate arms each ending in a pellet-ended scroll and a third arm which is simpler and leads from the horse's mouth.

II.12 Bury G (I.10)

Figure II.25. Bury G from dies A:1

The only two known coins of this type were allegedly found in the vicinity of Bury St Edmunds and I have assumed that they are East Anglian. There is a single obverse die and two similar reverses. Both coins are heavy with weights of 1.41g and 1.48g, implying that they are early.

The obverse has a very crude right-facing head; very simple open scrolls form the hair and the ear. The eye is composed of a ring and pellet. There appears to be a quartered-

ring in front of the nose, with a pellet in each quarter. A line can be seen radiating out from the eye.

The reverse has a right-facing horse with a band around its neck and two around its waist, possibly representing strapping. There is a solid line representing reins and a mane composed of pellets. The execution of the legs is strange with the front legs looking almost human and the rear appearing too far apart (see 5.4.2). The 'stepped' hooves of the horse are similar to those used on a number of early units such as Bury D. There is an elaborate design over the horse consisting of at least four connected ring and pellets which is similar to that on LFA (see die 13).

II.13 Bury H (I.10)

Figure II.26. Bury H

This type is very similar to Bury A with the head on the obverse reversed as it is on Bury C. I originally treated this as part of Bury C (Talbot 2006: 220, figure 14). There are only four known coins. Two are struck from clearly distinguishable obverse dies; I think that the other two coins were also struck by these obverse dies but they are too poor to be certain. Each of the four is struck from a different reverse die. The four coins all were found in the Waveney valley, implying that this is a small local issue (see Figure 2.24).

The obverse is a reversed Bury A. The reverse is also similar to Bury A except that on at least die 2 there is a three armed anti-clockwise spiral in front of the horse replacing the cross S-shaped arms.

II.14 LFA (I.12)

Figure II.27. LFA from dies G:14

LFA is composed of two main die-groups as shown in Table II.1.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	3	1	2	1.5
2	60	6	15	5.7
Other	14	3	10	2.2
Total	77	10	27	4.2
Forged	3	1	1	

Table II.16. Die-groups within LFA

The obverse has a left-facing head with a scroll from the forehead which sweeps out alongside the nose. The head is stylised and has lines of what appears to be braided hair going parallel to the edge of the face and ending in a tight scroll at the back of the head. There is a vertical line of three large ring and pellets in front of the forehead. The two oldest dies have a further scroll leading down from the mouth and a large ring and pellet before the nose; this is replaced in all later dies by a large ring of varying styles including concentric rings, spoked and pelleted rings, similar to those seen on Bury B reverses. Die A, probably the earliest die, is the only LFA die with a clearly defined ear, which is similar to that of Bury A. Between the scroll and the shoulder on die D is a diamond-shape which also occurs on reverse dies 3 to 10, it is likely to be also on dies 1

and 2. From obverse die E and reverse die 11 in the sequence this symbol is replaced by a hollow star (see 5.4.7).

The reverse has a realistic-headed horse facing to the right. The horse has what appears to be a flame emerging from its mouth. Above the horse is a ring and pellet from which emerge two upward, divergent arms, each ending in a ring and pellet, there being another ring and pellet between these arms. To the lower left is either a diamond (on early dies) or subsequently a hollow star. Below the horse on early dies are two or three vertical ringed pellets, from die 5 these are replaced by the diamond which in turn is replaced by a single ring and pellet. Die 16, the penultimate die of die-group 2, reverts to having two ring and pellets below the horse, and the final die 17 has a pellet-triangle and ring and pellet below the horse.

A uniface group of reverse dies, 20 to 26, have unidentifiable worn obverses; the reverses appear likely to be late coins in die-group 2, with the possible exception of die 24, which is closer to die-group 1 or the very early dies of die-group 2. I suspect that several of these uniface obverses will eventually prove to be late strikes from die F which remained identifiable when much worn but was probably used beyond that point. There is also a uniface example from earlier in group 2, the reverse being a relatively unworn strike from die 5 (cci 98 1379). The obverse cannot be die D which is paired with the other die 5 strikes; an examination of the coin suggested it was not plated but produced no clues as to the original obverse die.

The 80 recorded coins include three which are assumed to be contemporary forgeries, although this is not certain. These three coins are all struck from the same pair of dies which appear to be copies of the official dies D:4 but cut after die 4 started to develop a severe die-flaw. The figure below shows the changes in die 4 together with one of the coins thought to be a contemporary forgery.

Figure II.28. From left: Early and late strikes from die 4 and forged die R1

One of the three coins from dies D:4 has been tested by Megan Dennis (Appendix IV NM02) and is not plated but the five individual tests on the coin reveal a normalised silver content ranging from 59% to 87% with an average of 73%. These results reveal a level of debasement which is in marked contrast to the two other LFA's tested, which had a silver content of between 95% and 96%. The attempt to copy specific damaged dies and the level of debasement suggests that these three coins were forgeries, although it is conceivable that they were a small local sub-type using poor dies and debased silver.

There are two examples where elements of a design may have been subject to subsequent amendment:

Dies K : 19 (cci 02 0733) which are so far unlinked to other dies and are anomalous in having additional hollow stars, one in place of the scroll on the obverse, and another in front of the horse on the reverse. The additional hollow star on the reverse appears to overlay an earlier 'flame' emerging from the horse's mouth.

Figure II.29. Hollow star appearing to overlay a flame on die 19

Reverse dies 12 and 13 show signs of having had an earlier version of the start of the tail subsequently overlain by a pellet. It is possible that the alignment of the tail base

was changed to accommodate the two pellets below the tail or the earlier design may be from preliminary marking-out of the die.

Figure II.30. Possible re-cutting around the tail on dies 12 and 13

II.15 LFC (I.13)

Figure II.31. LFC from dies C:2

Die-groups	No. Coins	Obverse Dies	Reverse Dies	CPD
1 & 2	47	5 (inc. 1 LFA)	5	9.4
3	55	5	6	10.0
4 & 5	21	6	8	3.0
Total	123	16	19	
Plated	32	4(5)	1(3)	

Table II.17. Die-groups of LFC

As shown in Table II.17 LFC is divided into five die-groups. Die-group 1 and 2 contain very similar dies as do die-groups 4 and 5 and so each of these pairs of die-groups has been combined in the table.

The obverse dies, particularly of die-groups 1 to 3, are very variable. The first seven all have a clearly defined eye. Five of these have a forehead-scroll and a pellet ring below, die C has an upper scroll and a line emanating from the mouth with a ring above and below and die E has a line of pellets down the front of the face. All of these dies except die E appear to have been cut to show a complex Chimirri-Russell effect. At least four of the dies have beards in various forms (C, D, E, F and probably B).

The remaining obverse dies, comprising the last two dies of die-group 3 and all obverse dies of die-groups 4 and 5, are all similar; the head shows no eye and they have a pelleted forehead scroll below which is a substantial pellet ring. All dies show a large head sitting on a crescent-shaped shoulder with hair being represented by parallel pelleted lines ending in a scroll behind the head as on LFA.

The reverse dies show less variation. There is a branch under the right-facing horse on the first four dies which then changes to a pelleted pole. The first five dies have a four-armed device before the horse which, where visible, is replaced by several ringed pellets in the later dies. There is a pellet surrounded by a pelleted ring and several smaller annulets above the horse. Towards the end of die-group 3 and throughout group 4 the reverse dies become generally cruder, particularly in the detail above the horse and the single rooted tail is simultaneously replaced by a cruder double rooted tail. Die 5 from die-group 3 has two pellets and a ring above the back and is unique in having a ring below the horse instead of a pole. A recently recorded example of a die 5 coin is a very fine plated specimen, but other examples seen appear not to be plated. The Carthaginian prototype of the reverse is discussed in 5.4.2.

	Die-groups			
Weight	**1 & 2**	**3**	**4 & 5**	**plated**
Over 1.49				0
1.49–1.45	00			00000
1.44–1.40	00	000		00
1.39–1.35	000000	000	0	000
1.34–1.30	00000000	000000	0	0000
1.29–1.25	00000000	00000		0000
1.24–1.20	0000	000000000	0	000000
1.19–1.15	00000	0000000	00	
1.14–1.10	000	00	0	0
1.09–1.05		00	00000	00
Below	00	000	00	0000

Table II.18. Weights of LFC die-groups

The weight distribution shown in Table II.18 implies that coins struck from group 3 dies had a lower target weight than groups 1 and 2 with a probable fall from some 1.3g–1.39g to 1.2g–1.35g. It is conceivable that there was a further fall for die-groups 4 and 5, but the sample size is small and many of these coins are damaged.

There have been six LFC Units subjected to metal testing encompassing each of the larger die-groups, the results ranging from 88.4% to 98.5% bullion with no discernible linkage between purity and chronology. The general results are similar to other early Units and trace elements are unexceptional.

II.16 LFB Subtypes I, II and III (I.14)

Figure II.32. From left: LFB from sub-types I, II and III

Sub-type	No.	Obverse dies	Reverse dies	CPD
I	12	2	5	3.4
II	6	2	5	1.7
III	3	1	1	3.0
Total	21	5	11	2.6
Plated II	2	1	1	2.0

Table II.19. Sub-types of LFB

These early Units have right-facing heads on the obverse and left-facing horses on the reverse and are divided into three sub-types as shown in Figure II.32 and analysed in Table II.19.

Subtype I

The head has a simple single elongated pellet as an eye and the hair made up of parallel bands of pellets as in LFA and LFC. There is a ring and pellet within a pellet ring or ring before the face and distinctive pelleted lines or poles seemingly randomly placed before the face.

The reverse has a realistic-headed horse facing left with a highly decorated field. Three of the dies have a branch and two pelleted poles below the horse; the other two dies have a single branch. All dies have a bucranium above the horse. Three of the dies (2, 3 and 9) have pelleted poles in the upper field with die 3 also having one before the horse. The four dies linked to obverse A have hollow stars in the field (pellet ended on two dies); these have not yet be seen on the remaining die 3. Dies 1 and 9 have pellet-triangles before the horse, and die 9 also has at least two large ring and pellets in the field. Dies 2 and 11 have a strange symbol before the horse evocative of an inverted seagull.

Subtype II

The obverse differs from subtype I in that the right-facing head has a large eye partly formed by an outer oval line, an arc of pellet rings behind the hair, a scroll from the forehead and a large pellet ring before the mouth. Die C has a pelleted pole extending out in front of the nose. These obverse dies are stylistically close to LFC and the Snettisham Unit.

The reverse is as sub-type I but with only a single branch below the horse and less variable decoration. All dies appear to have a pellet ended hollow star above the horse's tail and, where visible, there are a number of large ring and pellets before the horse (at least four on dies 10 and 5).

Subtype III

Only two dies are known of this sub-type. As yet there is no clear image of the obverse. The head appears to be right-facing with 'braided' hair and there are pellets before the face. The reverse is similar to subtype I, but with only one pelleted pole below the horse and with the leaves on the branch pointing in the opposite direction. Above the horse is a pellet in a ring rather than a bucranium. Further differences include the upper forelegs being composed of a double line, rather than a single one, and there being a more substantial mane than on the other sub-types.

The reverses of each sub-type appear to be based on LFC, which is closer to the Carthaginian prototype (Figure 5.22). The close relationship between LFB and certain North Thames coinages is discussed in 5.8. Two of the sub-types carry the hollow star introduced part-way through the production of LFA which implies that they postdate LFA and LFC.

	Sub-type		
Weight	**I**	**II**	**III**
Over 1.44			
1.44–1.40	0		
1.39–1.35	00	0	
1.34–1.30	00	000	
1.29–1.25	0		
1.24–1.20	0	00	
1.19–1.15			
Below	00		00

Table II.20. Weights of LFB sub-types

Sample sizes are small but Table II.20 implies a target weight for sub-types I of 1.3g–1.4g with sub-type II probably slightly lower. There is only a single complete coin from sub-type III which has a weight of only 1.08g.

The metal used in the coins of all sub-types appears upon visual inspection to be similar to that used for LFA and LFC but as yet there has been no metal analysis.

There are only two plated examples, both probably hubbed from die 4 of sub-type II.

II.17 Bury Pallas Half Unit (I.15)

Figure II.33. Bury Pallas Half Unit sub-type I from dies B:2

The obverse has a small right-facing bristle backed boar with an inverted T below, which suggests that the boar represents a standard (Figure II.34). In front of the boar is a large ring and pellet, and there are smaller ring and pellets in the lower field. Above the boar is

the central motif of an upright branch bending to the left (the branch may be an ear of corn or a plant). To the right is a flag like design consisting of a vertical line or a pair of lines and a number of horizontal lines in various forms including a linked chain like design (die C) and lines of rings (A and D). The design immediately to the left of the branch is variable and is not fully visible; on die A it appears to be a standard or a long handled weapon. The imagery above the boar is complex and the end result of a sequence of abstraction discussed in 5.4.4 the immediate predecessors of which were Gallo-Belgic.

Figure II.34. Boar on obverse of Bury Pallas

The reverse has a right-facing horse with a natural head. The legs are drawn in the same way as on Bury A with two lines making up the upper half of the both the forward rear leg and the forward front leg. The tail is a single line but with an echoing line of small S-like devices, similar to the Bury C Unit which has pellets below the tail. The S-like devices are like those used to form a cross before the horse on Bury A. There is a ring and pellet below the horse (as Bury A) but the upper detail is of two varieties, not at present die-linked:

1. The four earliest dies have a curved plant-like form placed horizontally above the horse; this is similar to the device on the obverse but on die 1 looks more like a fish or a dolphin and appears to derive from what is probably a Hippocampus seen on the Gallo-Belgic coinages (see DT 341). Die 1 is probably the earliest and is the most elaborate; it has a large S device

immediately above the mane containing pellets in the loops, this being identical to a device in a similar position on the reverse of the Belgic 'head of Pallas' Units (DT 188–92) and certain of the continental derivatives (see DT 344A). There is a strange keyhole-shape before the horse and a linked chain below it. In the outer field there are at least three ring and pellets. The upper decoration of the other three early dies (2 to 4) consists of rings or pelleted rings in the outer field with one immediately above the horse.

2. The final two dies have simplified upper detail which for die 5 consists of a larger ring and pellet above the horse, and smaller ones elsewhere around it. Die 6 is more complex having small S shapes also added into the outer field (these also occur on dies 1 and 3).

The final two reverse dies struck with a Bury Pallas Half Unit obverse are Snettisham types which die-link to the variety 2 reverses. A post-close coin has previously unknown dies (C1:4a (see I.15)) and is struck with an obverse very similar to die D and a variety 1 reverse. This implies that the two varieties described above represent a chronological progression.

II.18 Bury Butterfly Half Unit (I.15)

Figure II.35. Bury Butterfly Half Unit from dies A:1

There are seven known coins struck from a total of seven dies. Four of the dies form a die-linked group and the others seem likely to eventually coalesce into a single linked chronological sequence.

The obverse differs from the preceding type in having a larger boar with different detail above it. Where visible, it also has a large ring and pellet within a pellet ring behind as well as before the boar. Above the boar are three smaller ring and pellets and from either the inner pellet or the outer two, rise two symmetrical serpentine lines of pellets. These, and various ring and pellets and lines, create a design likened by Chris Rudd, in an early description of the type, to Butterfly wings. The hidden faces within this design are discussed in 5.4.1.

The reverse is similar to the Pallas type, but simpler and with a larger concentric circle device above the horse. Where visible there is a pelleted exergue containing vertical lines and a small central ring and pellet. The horse in dies 1 and 2 has unusual praying mantis-like forelegs.

II.19 Bury Face Horse Half Unit (I.15)

Figure II.36. Bury Face Horse Half Unit

The unique example was found at Snettisham.

The obverse has a frontal view of a moustachioed face, to the upper left of which is possibly a horn, or an animal-like ear. Either side of the face are pellet-triangles beyond which are large crescents. These separate from the central design, with rings containing

either a single or a pellet-triangle. Below the face is a hollow star implying that the type is probably contemporaneous with late LFA and Bury B.

The reverse differs from the other Half Units in having single pellets below the tail of the horse rather than S shapes and an arrangement of ring and pellets forming an undefined design above the horse. This appears related to die 1 of Bury E and possibly to some early Snettisham Stater dies.

II.20 LFB Half Unit (I.15)

Figure II.37. LFB Half Unit

The only example of this type was found at Narborough, in west Norfolk, and I believe that it is likely to be part of a denominational grouping with a sub-type of the LFB Unit.

The obverse is geometric with a central pellet within a solid ring (possibly a double ring) and an outer pelleted ring. Radiating out from this centre is a cross formed by four ‘branches’ identical to those seen on LFB and early LFC reverse dies. Within each angle of the cross is an inverted V composed of two pelleted lines similar to those seen on the obverse of the LFB Unit. Within the angles formed by the branches and the point of each V is an annulet, only 6 are visible, one is omitted and the other, if present, is not visible. There is an outer pelleted border.

The reverse has a right-facing horse evocative of the left-facing horse seen on LFB; it is also similar to that seen on the Bury Half Units, but the legs are closer in style to LFB. There is a pelleted mane and pellets under the tail, as on other early Half Units.

There is a pellet just under the horse but the rest of the lower design cannot be seen. Above the horse is an annulet with an LFB-type branch emerging upwards, either side of which is a hollow five (or six) rayed-star with pellets in certain of the angles of each star. These stars are also evocative of certain LFB Units.

Uninscribed rare local types

II.21 Irstead B Unit (I.16)

Figure II.38. Irstead B Unit from dies A:2

There are only nine examples of this Unit which are struck from three obverse and five reverse dies. Some of the dies are crude with little dishing and coins are often poorly struck as is the example in Figure II.38. All recorded findspots have been in the west of the region and the Unit is probably a local issue from the fenland area.

The head on the obverse is left-facing and is very large in relation to the flan. There is a scroll from the forehead and the only die on which this is visible indicates that it is similar to that of LFA where the scroll encompasses a rosette. This die has a line extending from the mouth similar to that on die A of LFA, but rising rather than falling, and a pellet-triangle before the nose. The hair is shown by concentric bands of angled pellets with an outer border. Dies B and C have an outer ‘swagged’ line above the hair. The rear of the head is only visible on one die; this shows the hair ending in a coil similar to that seen on Bury D and LFA but containing three or possibly four pellets.

The horse is right-facing and there are two varieties both with a pellet in a ring below.

The first variety, on dies 1 to 3, has an open keyhole head and is almost identical in style to the reverse of the Irstead B Quarter Stater. There are pellet-triangles below the tail, a spoked wheel above and on die 3 pellet-triangles below the head. Die 2 has a single pellet below the horse connected to its groin by a thin line. Similar links are made between pellets and a ring on the Irstead B Quarter Stater and between a pellet and the rear of the horse on die 15, of die-group 3 of the Snettisham Stater. Other similarities to this die-group include the style of the forelegs and the pellet-triangle below the tail. Dies 1 and 2 have a spiked mane but on die 3 these are pellet-ended as on the Quarter Stater.

The second variety, on dies 4 and 5, lacks the pellet-triangle below the tail and has an unusual device above the horse consisting of possibly eight pellet-ended lines radiating from a central ring or pellet. This is the heavier of the Units and it could prove to be a separate sub-type.

The obverse is stylistically similar to LFA of the early local period but the reverse has stylistic links to the Snettisham Issue. I suspect that this type is probably contemporaneous with the Snettisham denominational Issue, but uses an older form of obverse.

II.22 Irstead B Quarter Stater (I.16)

Figure II.39. Irstead B Quarter Stater

There are only two recorded examples of this type, both from the same pair of dies. The only recorded findspot is near to Beccles in Suffolk.

The obverse of this type is very similar to the Early Snettisham Quarter Stater (3.4.1) except that there are no lines bounding the central wreath and there is only a single arc of pellets either side of the central pellet with a single ring and pellet in each arc. There is also a single ring and pellet in the corners left by the remainder of the design. There is a pelleted design outside the two arcs; little can be seen but it may be a pelleted ring.

The horse on the reverse is left-facing and its mane is unusual in being composed of a series of line and pellets as used on certain LFA dies (such as dies 6, 8, 9 and 12) and on Irstead B Unit die 3. The drawing of the legs is distinctive and similar to those on several Snettisham dies of all denominations and on Irstead B Units. The head is an open form, as on the Unit, and there appears to be a line emerging from the mouth, which is probably a representation of the 'fire' seen on other late early local and early denominational period reverses. There is a ring and pellet above the horse, a further ring below and surrounding the ring are at least three small pellets. One of the pellets is linked to the ring by a thin line and there seems to be a second line probably linking a so far unseen pellet to the bottom of the ring; there are similar pellet-ended lines on the Irstead B Unit and on the Snettisham Stater die 15.

There are many features in common between the reverse of the Irstead B Quarter and that of the Unit but the former does not feature the pellet-triangle motif which is prominent on the latter.

II.23 Bury Quarter Stater (I.16)

Figure II.40. Bury Quarter Stater

The obverse has a cruciform pattern with a vertical wreath, and the horizontal defined by lines and pellets as on the Snettisham Quarter Stater. The pattern filling the four quarters is unclear but appears likely to be symmetrical between the diagonally opposite corners, with each corner containing either a large ring and pellet, or a cogged ring and pellet.

The reverse has a right-facing horse on a large flan with an outer-pelleted border. The horse's head is realistic and its mane is composed of variable sized pellets; it is possible that only two legs are shown. Above and below the horse is a large cogged ring and pellet, and connecting the hooves is a chain-like device. Other detail is present but cannot be seen clearly including rings, and ring and pellets, and a line dropping from a 'belt' around the horse's middle.

The realistic horse's head indicates that this is an early type as do the chain-like device below the horse and the appearance of the pelleted outer border which are both evocative of early local period Half Units (see Bury Pallas Half Unit die 1, for similar chain).

II.24 Spiral Unit (I.16)

Figure II.41. Spiral Unit

The obverse is a crude right-facing head with backward swept hair coarsely drawn using crossed lines. There is a large eye behind which is a crude scroll probably representing the ear. In front of the large open mouth is probably a crescent and there are signs of a scroll leading away from the top of the forehead. The head is evocative of that seen on cruder Snettisham and Plouviez Units.

The reverse is highly ornate with a right-facing horse with an open head and single lines as a mane. The upper fore-legs are drawn with two lines for the leading leg and one for the trailing leg, as on many other early local and denominational coinages up to BHB. The unusual spike-like lines pointing downwards from the single line tail presumably represent hairs. There are pellets of variable sizes to the left of the mane and a large pellet below the horse. Above the horse is a ring and pellet centred spiral, similar to that seen on early Snettisham Staters; above this are seagull-like shapes surmounted by pellet-triangles and a device which could represent antlers.

Appendix III Descriptions of denominational period coinage types

This appendix provides a written description of each type of the denominational periods together with statistical information on die-groups and weight. This catalogue is intended to supplement the information in Chapter 3 and to be read in conjunction with the photographs in Appendix I. The ordering of the types follows Chapter 3: Mint A coinages are dealt with first in chronological order, followed by Mints B and C and finally the late local types which have not been linked to a specific mint. As in Appendix 2 each section relates to a type of coin and the heading includes the location of the die images in Appendix I, these are not repeated each time an identified die is discussed.

Mint A

III.1 Snettisham Stater (I.17)

Figure III.1. Snettisham Stater from dies F:10

The Snettisham Stater was a large issue, the dies of which form three main die-groups (Table III.1). Die numbers exceed those used in producing the better known Irstead and BHB Staters. Seven reverse dies are known from a single example resulting in an Esty forecast that five more remain to be found.

Group	No.	Obverse dies	Reverse dies	CPD
1	24	4	6	4.8
2	44	2	5	12.3
3	5	1	4	2.0
E:7	2	1	1	2.0
Other	1		1	
Total	76	8	17	6.0
Plated	2	1	2	

Table III.1. Snettisham Stater statistics

The obverse appears to be struck from re-used dies with practically all design elements removed by either wear or, more likely, by deliberate erasure. There seem to be traces of the original design on each of the eight dies; in most cases this takes the form of a residual cruciform segmentation of the die. On die B a little more of the design remains including traces of a wreath as shown on Figure III.2. Attempts to identify any of the original dies have so far failed. Six of the dies have been engraved with a symbol comprising a line with at one end three parallel curved lines emerging at right angles, giving the appearance of a flying pennant. On die C this symbol appears to be omitted but is replaced by pellets filling the cruciform shape, similar to, but cruder than, that occurring on Plouviez Staters.

Figure III.2. Die B showing residual wreath diagonally top left to bottom right

Many reverse dies are stylistically similar to the North Thames Whaddon Chase Stater, and Snettisham Staters were only relatively recently identified as an Icenian type (Gregory 1992). Figure III.3 illustrates the two types, showing one of the two Snettisham dies with a spiral below the horse. The illustration is unclear but the horse's head on the Snettisham Stater is more open and stylised than that on Whaddon Chase Staters. All other Snettisham reverse dies have a ring and pellet below the horse, surrounded by a ring of pellets on early dies.

Figure III.3. Snettisham die 4 (left) and Whaddon Chase Stater (right)

The design above the horse is variable but usually there is a ring and pellet, or a ring over which is a backward facing key-shaped form, possibly having a human face. A very similar design can be seen on most Whaddon Chase Staters (for example BMC 307), which does not appear to evolve into a face. During the course of die-group 2 the pellets streaming to the right from above and below the main upper ring and pellet are removed, and an upper pellet-triangle is introduced.

The design elements surrounding the horse gradually change, and its head becomes more open in the final dies. These are close in style to subsequent types such as the Plouviez Stater. This implies that the three main die-groups represent a single chronological sequence. Other aspects of stylistic development of the reverse dies also imply that the type was struck in a single continuous sequence; die-group 3 in particular

has distinctive reverse dies, many of the features of which start to be introduced in group 2, which in turn shows continuity from group 1.

The dies of die-group 3 have a large ring and pellet above the horse, with a tangential line and a pellet-triangle to the right; it is not possible to tell whether a face also forms part of this design. This die-group shows increased use of the pellet-triangle with the device either below the tail or behind the rear leg on all of the reverse dies. This die-group also differs from the others in only having a single line making up the horse's tail as opposed to two lines in the other dies. There is other detail on certain dies which cannot yet be fully described.

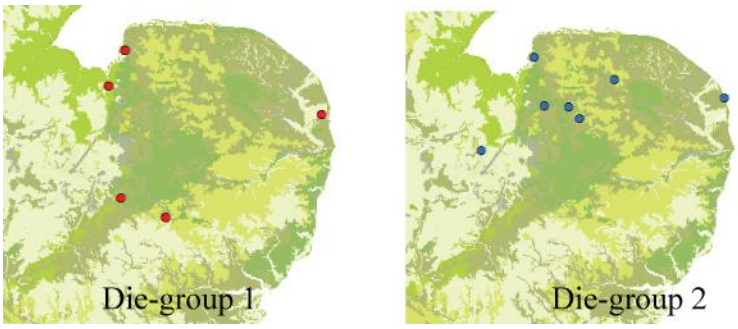


Figure III.4. Distribution of Snettisham Stater die-groups

Figure III.4 indicates that finds from die-group 2 are more dispersed than those of die-group 1 but does not provide clear evidence of distinct areas of focus for each die-group.

	Die-group				
Weight	**1**	**2**	**3**	**4**	**Total**
5.79–5.75	00				00
5.74–5.70	000	0			0000
5.69–5.65	0000	0			00000
5.64–5.60	000000	0000000000	0	00	00000000000000000000
5.59–5.55	00	00000000000000	00		00000000000000000000
5.54–5.50	00	000000			00000000
5.49–5.45		000	0		0000
5.44–5.40		00			00
Below		00			00

Table III.2. Weight distribution of each die-group

Table III.2 shows that the weight distribution for the Stater clusters around 5.6g and implies that die-group 1 had a higher target weight than the other die-groups. The tight grouping of weights in die-group 2 is shown in Table III.3 below, which analyses weights which fall between 5.52g and 5.69g in 0.02g intervals. 17 of the 39 die-group 2 Staters with a recorded weight are within the half gram range of 5.56g–5.61g.

	Die-group		
Weight	**1**	**2**	**3**
5.69–5.68		0	
5.67–5.66	00		
5.65–5.64	000	000	
5.63–5.62	0	000	0
5.61–5.60	0000	0000	
5.59–5.58	00	00000000	0
5.57–5.56		00000	0
5.55–5.54	00	00	
5.53–5.52		0000	

Table III.3. Weight distribution of the Snettisham Stater at 0.02g intervals

The above tables indicate a target weight for die-group 1 of c. 5.6g to 5.65g, which dropped slightly for the remaining die-groups to, say, 5.56g to 5.61g.

There have been twelve Staters subjected to metal tests which have given an overall average gold, silver and copper alloy ratio of 37:31:29, with a relatively modest standard deviation of 2.5% for the gold. The results, listed in Appendix V, imply that die-group 2 may have been produced with a slightly different alloy to die-group 1, with slightly more gold, less silver and more copper. If one anomalous metal test is ignored (coin 96.2726), the average gold content increased by 2.5% and copper by 2% between die-groups 1 and 2.

The other evidence outlined above strongly implies that three main die-groups represent a single chronological sequence.

III.2 Early Snettisham Quarter Stater (I.18)

Figure III.5. Early Snettisham Quarter Stater from dies B:2

There are only eight known coins struck from three unlinked pairs of dies.

The obverse is unlike most other Icenian types, except the Irstead B Quarter Stater (see II.22). It has a central wreath-like band with a ring and pellet at the mid-point and at each end. There are two semi-circles on each side of the wreath forming a large figure-of-eight pattern, within which are rings on one die and pellets on the other. At the 'waist' of the figure-of-eight there is a ring and pellet on either side. Dies A and C have additional pellet and pellet-triangle decoration, whereas die B appears plainer.

The reverse has an unusual right-facing horse with ring and pellet decoration in the field. Below the lower ring and pellet there seems to be a three-armed symbol, similar to that appearing behind the horse on the much later dies of die-group C of the LFH Issue. The horse has a small head similar to that on early Snettisham Stater dies, but is unusual in being drawn in profile with only one front and one rear leg visible. Stylistic links with early Stater reverses are illustrated in Figure III.6.

Figure III.6. Early Snettisham Quarter die 1 and Stater die 2 (right)

The only example tested has a bullion content of 40% gold and 38% silver, which is higher than other Snettisham gold coinages. There are recorded weights for three of the coins: 1.08g, 1.1g and 1.14g, which are similar to the weight of Snettisham Quarter Staters.

The only four provenances are from the Snettisham area.

It is possible that this type predates the Snettisham Issue and was related to one of the early Units, but I think it more likely that it was a short lived and quickly superseded Snettisham denomination. It has a distinctive large flan like the large flan Units, and the reverse is also evocative of Units such as LFC.

III.3 Snettisham Quarter Stater (I.18)

Figure III.7. Snettisham Quarter Stater from dies C:5

There are two die-groups which probably represent a single chronological sequence (Table III.4). The second die-group is unusual, as 11 reverse dies are paired with a single obverse. Dies D:6 are not die-linked to the remainder of die-group 2, but I have treated them as part of the die-group as die E appears likely to be a recut version of die D.

Die-group	No.	Obverse dies	Reverse dies	Weight grams	CPD
1	67	3	5	1.08–1.15	16.7
2	34	2	12	1.05–1.14	4.9
Total	101	5	17		
Early Quarter	8	3	3	1.08, 1 & 1.14	2.7

Table III.4. Snettisham Quarter Stater die-groups

The obverse has a quartered design with a vestigial ‘wreath’ dividing the obverse into two. This is composed of pairs of pellets each joined by a horizontal line; at either end is a large ring and pellet. In most dies the quartering line, which is also bounded at either end by a large ring and pellet, is a row of small pellets overlaying a single line. In die D it is a double line, which was later overcut with pellets to become die E. In two opposing diagonal corners is a crescent with a ring and pellet at each tip of the crescent, giving an impression of a smiling face. In one of the remaining corners appear to be two locks of hair, similar to those used on the obverses of JA and JB Staters. The remaining corner contains a more complex design not easily decipherable, but probably based on the cloak of Apollo. The whole design appears to be ultimately derived from the Apollo head of Gallo-Belgic Staters.

The reverse has a right-facing horse with a pelleted mane. The earliest head is very small, on die-group 1, and it gradually becomes larger, echoing a similar development on the Snettisham Stater. The forelegs are as shown on most Stater dies with two lines making up the left foreleg and a single jointed line for the right foreleg. Below the horse is a ring and pellet of varying size on all dies except 7 and 8, where there is a single pellet. Dies in die-group 1 have an outer ring of pellets, which can give the appearance of a solid outer ring; the Staters are similar. On dies 10 and 13 there is an extra pellet below the horse. Above the horse is a large ring and pellet, which in die-group 1 only is surrounded by an outer pellet ring; before the horse in die-group 1 is a ‘cogwheel’ which appears to be replaced in later dies by a, yet indistinct, arrangement of pellets. The earlier dies have one or more rings below the tail and, where visible, later dies have one to three pellets in this position. A similar change from rings to pellets below the tail probably occurred with the Staters, although so far only Stater die 2 can be seen to have a ring.

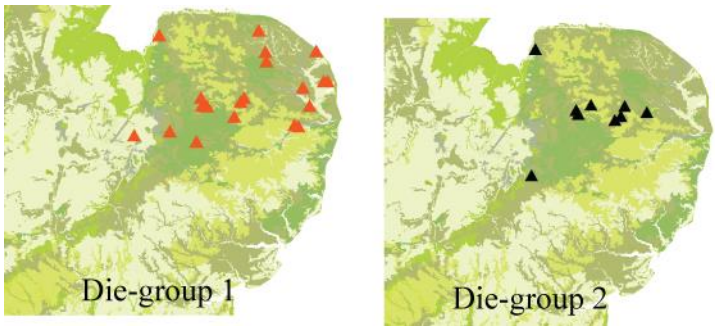


Figure III.8. Distribution of Snettisham Quarter Stater die-groups

Die-group 1 coins have a wide distribution west to east across central and southern Norfolk, with an unusually large number of finds in the extreme east of the region. Die-group 2 coins are concentrated in the centre of this band and are not as dispersed as the earlier dies (Figure III.8).

There are major similarities between this type and two North Thames Quarter Staters, ABC 2466 and ABC 2255, both of which are illustrated in Figure III.9. Early reverse dies are very close in design to those seen on both of these North Thames types, reverse die 1 being similar to the reverse of ABC 2255. Similarly the obverse of ABC 2466 can only be separated from die A of the Snettisham Quarter by minor variations. The implications of these similarities are discussed further in 5.8.

Figure III.9. From left: ABC 2466, Snettisham Quarter dies A:1 and ABC 2255

Both of these North Thames types are very rare and were produced from few dies. After die 1, the Snettisham reverses became increasingly distinct, with more typical Icenian horse's heads.

Shernborne A hoard contained a full range of Snettisham Staters, but, of the thirteen Quarter Staters in the hoard, most were relatively early, with the last being with reverse die 10A. This die was identified after the database was closed; it was struck when

the deterioration of the obverse die matched its condition when being paired with die 10. There were seven later dies which did not appear in the hoard. From this I have inferred that Snettisham Quarter Stater production is likely to have continued after Snettisham Staters were superseded by the Plouviez Stater (6.2.2).

Grams	1	2
Over 1.24		0
1.24–1.2	0	
1.19–1.15	0000	
1.14–1.1	00000000000000000000	0000000000
1.09–1.05	00000000000000000	000000000000
1.04–1.00	0000	0000
Below 1.00	00	0000

Table III.5. Weights of Snettisham Quarters

Table III.5 implies that the likely target weight of die-group 1 was 1.1g - 1.15g, with a slight drop for die-group 2. Die-group 1 coins are composed of a similar alloy to the Stater; the only die-group 2 coin tested is from a late reverse die and is more debased than any other Snettisham gold type tested. This provides a further indication that the production of Snettisham Quarter Staters continued after the Staters were superseded by the Plouviez Issue.

III.4 Snettisham Unit (I.19)

Figure III.10. Snettisham Unit from dies D:7

As shown in Table III.6, there are four main die-groups of Snettisham Units and a number of, so far, unlinked dies. These have all been divided into two sub-types, sub-type 1 being those dies having a hollow four pointed star above the horse's tail. These may be related to the five pointed hollow star seen on LFA and other early types.

Die-group	Subtype	No. Coins	Obverse Dies	Reverse Dies
1	1	2	1	2
2	1	17	2	7
Dies B:2 & 8	1	4	1	2
Sub-total	**1**	**23**	**4**	**11**
3	2	12	1	3
4	2	44	4	6
Dies L:17	2	1	1	1
Sub-total	**2**	**57**	**6**	**10**
Dies F:12 & poor	Unclear	2	1	1
	Total	82	11	22
	Plated	1		

Table III.6. Snettisham Unit sub-types

The obverse has a right-facing head which is large relative to the size of the flan. It has a large eye, no ear, a lens before the mouth and a 'scroll' curving away from the forehead. The hair is drawn in parallel pellet bands ending in a scroll, as on LFA and LFC. Die L reveals that there is an outer border of either rings or torcs each with a central pellet. There is additional decoration in front of the lower face with the edge of a pelleted design revealed on several dies, the curvature on die E implying a pellet ring, and there is a concentric design on die H, with an outer solid ring. It is probable that a full image of the front of the face would reveal an attempt to create a Chimirri Russell effect. Stylistically, the obverse appears related to LFA and LFC.

The reverse dies feature a right-facing horse, most examples of which have 'fire' streaming from the mouth. Below the horse is a ring and pellet, some with an outer ring of pellets. Below the head is usually another ring and pellet, and the tail is leaf-shaped. The

horse's head appears to be transitional, with the earlier dies having realistic heads, and the later a more open keyhole shape. The mane is generally pelleted, but can be a solid line, as on dies 14 and 15, or absent as on die 9. Above the horse is a ring and pellet, which in most cases appears to have two outward branching lines; the full design is not visible but is evocative of that ending in two rings on LFA Units (see Figure III.11) and on the Snettisham Stater where it terminates in a face or a wing.

Figure III.11. Similarities between LFA die 27 and SU die 3

The form of decoration to the left of the ring and pellet has been used to divide the Units into two subtypes: sub-type 1 dies (1 to 8, 20 and 22) have a device which can be described as either a kite or a four pointed hollow star in this position, sub-type 2 dies have a pellet-triangle either side of the upper ring and pellet. Die 1 is unusual in having no fire from the mouth of the horse and an extra ring and pellet, and is very similar to Snettisham Stater die 2.

The final reverse die (die 19) has an eight spoke wheel instead of a ring and pellet above the horse, which has a swept forward ear and a ring containing two pellets below it. This reverse appears transitional between the Snettisham type and the subsequent Plouviez Unit which have a similar wheel, although not the other unusual details.

With the exception of the final die the reverse designs are very close in ornamentation and style to those of the Snettisham Stater and certain of the Snettisham Quarter Staters, although the gold coins do not share the 'kite' symbol of sub-type 1 Units. Figure III.12 shows that the distribution of the two sub-types is broadly similar although

sub-type 2 is stronger in north-west Norfolk and sub-type 1 has a greater presence in the Fens.

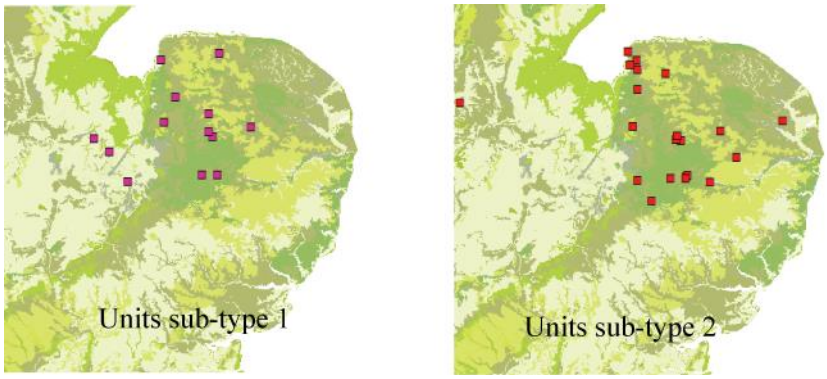


Figure III.12. Distribution of sub-types

Notwithstanding the minor distribution differences I suspect that the two sub-types were consecutive and that the type was minted as a single sequence.

The original target weight was probably in the range 1.2g–1.24g showing a significant reduction from the earlier Large Flan Units. The three coins which have been analysed had an average bullion content of 88.2%, a modest reduction from the Units of the early local period.

Since Talbot 2006, three new reverse dies and a few additional die-links have been found. Die-group 5 of that paper has been separated into a new type, the Plouviez Unit; the remaining die numbering has been retained.

III.5 Snettisham and Plouviez Half Units (I.15)

Figure III.13. Snettisham and Plouviez Half Units

The earliest Snettisham Half Units are a die-linked continuation from the early local period, but struck on smaller thicker flans which are more dished than the earlier types. The reverses are stylistically close to Snettisham and Plouviez Units. The main types of early Half Unit are summarised in Table III.7. Most of the dies are known from a single example and it is not possible to examine the types at die-group level. I suspect that as more dies and die-links are discovered the Snettisham and Plouviez Half Units will eventually form a single die-linked sequence connecting to the earlier Bury Half Units.

Type	No.	Obverse dies	Reverse dies	Likely target weight	CPD
Bury	15	8	11	Say 0.65–0.70	1.8
Bury/Snettisham	4		2	As Snettisham	
Snettisham	8	2	7	Say 0.45–0.55	1.8
Plouviez	7	2	3		2.8

Table III.7. Early Half Units

There are two styles of obverse. The first is a continuation of the Bury Pallas Half Unit and is a further abstraction of the head of Pallas Athena described in 5.4.4. The small boar remains at the base of the design, but on dies E and F it has long pellet-ended hairs on its back. As the flans are small often only the hairs of the boar can be seen, and in no example is the full boar visible. On dies E and F the large plant-like design on the back of the boar is more bulbous at the base and becomes vertical; to the left of this are added two pellet rings with a pellet between them. The second style of obverse is composed of a triangle with slightly concave sides and a central pellet; from each of the three points of the triangle a line goes out to divide the field into three, and I have assumed that this is the transition point between the Snettisham and the Plouviez Issues. From this point, all reverses are similar to Plouviez Units, although there is no clean cut-off of reverse dies between the two Issues.

The reverses are variable, but similar in design, to the reverses of Snettisham or Plouviez Units, and are clearly a continuation from the Bury Pallas Half Unit. All of the reverses have an open headed right-facing horse, and are described by referring to Unit dies of the Snettisham or Plouviez issues:

- Coin struck with a Snettisham Unit die (20). Die 7.
- As Plouviez Unit die 6, which has an 'Irstead' wheel and tangent above the horse, however the Half Unit has one pellet rather than three below the horse. Dies 9, 10 and probably 15.
- Similar to Plouviez Unit die 1, but with only four spokes in the wheels above and below the horse. Die 11.
- Very close to Snettisham Unit die 11 and similar to most Snettisham Unit die-group 2 and 3 dies, but with a single pellet rather than a ring and pellet below. Die 8.
- Very close to Plouviez Unit dies, particularly die 2, which has a cross in a ring above and a pellet-triangle below. Dies 16, 17, 18 and probably die 12, although the upper detail is not visible in the only example of this die.
- The final reverse die is paired with a worn die E and looks similar to EBH reverses. It is deeply cut, has very sharp looking hairs in the mane and probably tail, has a multi-spoke wheel above and probably a ring and pellet below (this could be a cross in a ring). Below the tail is a pellet-triangle. Die 13.

Figure III.14. Distribution of Snettisham and Plouviez Half Units

The few recorded findspots shown in Figure III.14 imply a Breckland and western Norfolk distribution, similar to that of the Snettisham Unit.

III.6 Plouviez Stater (I.20)

Figure III.15. Plouviez Stater from dies D:8

This type falls into three die-groups as shown in Table III.8, but there are no stylistic differences between the die-groups, and sample sizes are small. I expect these die-groups to eventually consolidate into a single sequence.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	8	1	3	4
2	64	4	9	9.8
3	4	1	1	4
Total	76	6	13	8

Table III.8. Die-groups for Plouviez Stater

All but the last two Staters have a simple pellet-cross design on the obverse with a central ring and pellet. Several of the obverse dies continued in use with significant wear and damage, and it is often hard to identify them: fifteen coins have obverses that are so far unidentified and I suspect that these conceal at least one additional obverse die. The final two obverses introduce a design that was subsequently used for the Irstead and EBH Staters; this retains the pellet cross, but has an arc in each quarter and central rose-like element.

Six of the earliest reverse dies have two small crosses and a pellet-triangle below the right-facing horse. Prior to the discovery of the Wickham Market hoard only two of these dies were known; three of the dies are still only recorded from a single coin and there are probably additional dies of this type yet to be discovered. In subsequent dies these were replaced by a wheel with either eight or four spokes. Towards the end of this sequence, what had been two arcs over the horse's back, each containing two pellets, gave way to a continuous crescent shape containing a zigzag and pellet design, evocative of the exergue of a Gallo-Belgic E Stater. Thus, both reverse and obverse dies transition into the designs of the Irstead Stater. Die-links may eventually be found between the two types.

The Wickham Market hoard significantly increased our knowledge of this type, increasing the number of known dies by 50% and more than tripling the number of known coins. The weight analysis of the Wickham Market hoard provides an adjusted average weight of 5.57g for the Plouviez Stater (Talbot and Leins 2010: table 5), broadly similar to average weights of Snettisham and Irstead Staters.

There are insufficient recorded findspots to comment meaningfully on distribution.

III.7 Plouviez Unit (I.21)

Figure III.16. Plouviez Unit from dies C:6

As shown in Table III.9 most examples of the Plouviez Unit form a single die-linked sequence. I expect the unlinked examples to eventually form part of this sequence.

	No.	Obverse dies	Reverse dies	CPD
Linked	21	4	8	3.5
Not yet linked	4	2	4	
Total	25	6	12	2.8

Table III.9. The Plouviez Unit

The obverse dies have a right-facing head and are similar to those of the Snettisham Unit, but cruder. None have yet revealed whether there is additional detail before the face as there is on Snettisham Units. There is no lens before the mouth, instead two rather crude protruding lips. The bands of hair are separated by solid lines on several of the dies, seen clearly on dies B, D and F, and at the bottom of the hair is a scroll, or a ring and pellet. Several of the dies have a pronounced shoulder and on die A this surmounts a large ring and pellet.

The reverse dies have a right-facing horse, which differs from the Snettisham Unit in having a more open keyhole head, a tail formed of a single line with strokes pointing backwards suggesting hairs and a pellet-triangle below. Most dies follow the final Snettisham die in having an eight spoke wheel above the horse and a single pellet below the head. There are a number of variants:

- Dies 1 and 12 have a second eight-spoke wheel rather than a pellet-triangle below the horse.
- Die 2 has a four rather than eight-spoke wheel above the horse
- Die 6 has a tangential line emerging from the upper wheel similar to that seen on Irstead Units; this may be the final die and transitional to the Irstead Issue.

Grams	
Over 1.34	0
1.34–1.30	0
1.29–1.25	
1.24–1.20	
1.19–1.15	
1.14–1.10	000
1.09–1.05	00
1.04–1.00	0
0.99–0.95	00
Below 1.00	0000000

Table III.10. Weight distribution Plouviez Unit

Table III.10 shows a wide weight range because of the poor condition of many Units; I suspect that the target weight was similar to that of the Snettisham Unit.

Plouviez other denominations

The Snettisham Quarter Stater was likely to have also been minted as part of the Plouviez Issue, but without any stylistic changes. The Half Unit is described with the Snettisham Half Unit.

III.8 Irstead Stater (I.22)

Figure III.17. Irstead Stater from dies E:10

There are three die-groups, as shown in Table III.11, and for each there is a high level of known coins per die indicating that the die-groups are likely to remain un-linked. The Wickham Market hoard increased the number of known Irstead Staters from 55 to 242 but added only a single new die and no other new die-links.

Die-group	No.	Obverse dies	Reverse dies	Weight	CPD
1	73	1	4	5.54–5.7	29.2
2	25	1	2	5.53–5.69	16.7
3	144	5	5	5.52–5.67	29.0
Total	242	7	11		27.0
Plated	2	2	2		

Table III.11. Die-groups of the Irstead Stater

The obverse is similar to that of the final two Plouviez dies (E and F), except that the central ‘rose’ element of the design is a trefoil rather than a quatrefoil. Die C is anomalous, as the field in this die is divided into three rather than four. From die D the design of the central rose changes; the incuse three arcs are replaced by three raised crescents, with three small pellets interspersed between the crescents.

The two earliest reverse dies are indistinguishable from late Plouviez dies, and Plouviez die 12 appears to by the same hand as Irstead dies 1 and 2. They share detail such

as the single line mane. After these two dies the portrayal of the horse becomes more typically ‘Irstead’, with strong similarities to the Units and Quarter Staters. A zigzag pattern is then present in the exergue, and a ring and pellet motif replaces the wheel below the horse on several dies. The more typical Irstead horse has a pelleted mane, and continues to have front legs made of double lines which give a W shaped effect. Extending from the mouth is a curved line which joins a large ring and pellet creating a form of scroll. In all dies, a crescent sweeps from the tail to the ear containing pellets and zigzag lines recalling a GB E Stater exergue; outside of this, there appear to be at least two pellet rosettes. There are also a number of very minor design modifications none of which has an identifiable significance.

The non-hoard provenances of Irstead Staters are shown in Figure 3.16. The die-group 3 coins were found to the south of those from die-group 1, but there are only three recorded findspots for each die-group. Obverse Die C is the earliest of die-group 3 and is anomalous in having the field divided into thirds rather than quarters. This indicates that the two main die-groups may represent parallel production although the anomalous Die C makes more sense as the first die of a distinct sub-group rather than in the middle of a continuous sequence.

	Die-group		
Weight	**1**	**2**	**3**
5.79–5.75	0		000
5.74–5.70	000	0	000
5.69–5.65	000000000	000000	0000000
5.64–5.60	0000000000000000	00	00000000000000000000000000000000
5.59–5.55	0000000000000000	000000	00000000000000000000000000000000
5.54–5.50	0000000000	000	000000000000000000000000000000
5.49–5.45	00000	000	000000000000
5.44–5.40	00	0	0000000
5.39–5.35	000		00000
Below	00	00	0000000

Table III.12. Weight distribution Irstead Staters

Table III.12 shows no material difference in average weight between the die-groups, and the type appears to have a similar target weight to the earlier Snettisham and Plouviez Staters. Metal analysis suggest that the Irstead Stater had a slightly higher gold content than the preceding two types, but markedly less silver (4.4.1).

III.9 Irstead Quarter Stater (I.23)

Figure III.18. Irstead Quarter Stater from dies C:1

As shown in Table III.13, there are two main die-groups, and the type is relatively common.

Group	No.	Obverse dies	Reverse dies	Weight	CPD	Average weight grams
1	26	4	4	1.04–1.2	6.5	1.065
2	14	1	1	1.03–1.1	14.0	1.037
3	75	3	9	1.04–1.14	12.5	1.065
Total	115	8	14			
Plated	1					

Table III.13. Die-groups of the Irstead Quarter Stater

The obverse appears like two large back-to-back crescents, with the central area of the crescents forming a box. This box is divided into three or four sections by horizontal lines. Each section is segmented by two to four short lines, none of which cross more than one section, and many of which are angled in relation to the box. The ends of the crescents are divided by further lines, and either side of each is a symmetrical branched structure with a pellet underneath each lower branch, on most dies. There is a large ring and pellet

above and below each pair of crescents on most dies. Die F has additional ring and pellets either side of the ends of the crescents.

The reverse has a right-facing open-headed horse in the same style as the Stater. Above the horse is a crescent with a large ring at each tip, giving the appearance of a smiling face. The decoration either side is variable being either: a pellet rosette, a pellet-triangle or (on die 4) a ring and pellet. The dies vary in their detail around the horse's head: die 1 has a pellet rosette below the head, dies 2 and 3 are unclear, and die 4 and 5 have a single pellet between the neck and head. Many later dies have at least a single pellet before the mouth. Die 11 appears to have a spiral before the mouth and it is possible that die 8 has 'fire' flowing from the mouth, as seen on many early Units. The tail is distinctive starting with a single line which forks into two, these two lines have the appearance of mass, by being connected by parallel angled lines. Below the horse is a ring and pellet, and under the tail is a single pellet.

The horses are very similar on all Irstead types; for instance those on Quarter Stater dies 5 and 6, Stater dies 9 and 10, and Unit dies 1 and 2 have an almost identical body, head and legs. It is unclear whether the die-groups represent a continuous sequence or were issued in parallel. I have treated the cruder dies of die-group 1, which are less geographically spread, as the earliest in this sequence when numbering the dies.

As discussed and illustrated in 3.4.3 the Quarter Stater reverse dies 3 and 4 have been found paired with both Irstead Units, and a late strike from die 3 was paired with EBH Unit obverse die. Die 3 was in a similar, slightly degraded, condition when used to strike both Irstead Quarter Staters and Units, and die 4 was at an intermediate stage when it struck an Irstead Unit, with Quarter Stater strikes being both earlier and later. The EBH Unit struck from die 3 shows a number of additional 'lines' on the coin, these are probably the result of either deterioration in the die, or overstriking an earlier coin.

The Irstead Quarter has not been found in context with other coinage, and so there is no evidence to help order the die-groups. The two main die-groups can be separated by the style of the obverse design, which is much cruder with a larger ‘box’ in die-group 1.

	Die-group		
Weight	**1**	**2**	**3**
Over 1.24			
1.24–1.2	00		
1.19–1.15			0
1.14–1.1	00000	0	000000000000000
1.09–1.05	00000	000	0000000000000000000
1.04–1.00	00000	00000	00000000000000
0.99–0.95	0	0	0
Below 0.95	0		0

Table III.14. Weight distribution for die-groups of the Irstead Quarter Stater

Table III.14 shows no significant weight differential between die-groups. There are some signs of geographic separation between die-groups with die-group 1 being very centrally focussed, and die-group 3 being stronger on the fen edge (3.4.3).

As discussed in 3.4, I have concluded that two types, often loosely referred to varieties of Irstead Quarter Staters (ABC 1471/4 and ABC 1477), actually form part of the BHB and BHC Issues. I have also concluded that the Irstead Quarter Stater itself was also issued alongside the EBH Issue. The later conclusion is based upon the absence of a Quarter Stater which links to the EBH Issue, a die-link being found between an Irstead Quarter Stater and an EBH Unit and a similar relationship being demonstrated by hoard evidence between the Snettisham Quarter Staters and the Plouviez Issue (III.3 above). The separation of BHB and BHC Quarter Staters are based upon the following:

- The BHC Quarter Stater reverse dies are stylistically similar to the BHC Unit reverses, but not to earlier Issues.

- The Quarter Staters show a decline in weight between Irstead and BHC of some 5%, which is similar to the reduction in the target weight of the relevant Staters (see Tables 4.6 and 4.7).
- There are some stylistic links between the BHB Quarter Stater and other BHB types which are discussed in III.16 (one of which is illustrated in Figure III.28).
- Quarter Staters have been identified for the Issues of Mint C which are likely to have been produced at the same time as these Issues of Mint A. It is unlikely that substantial early Issues from Mint A would have been produced without related Quarter Staters.

One piece of stylistic evidence does not support my conclusions about these Quarter Staters:

- An analysis of die wear demonstrates that Irstead Quarter Stater die F predates dies G and H in Irstead Quarter Stater die-group 3 (I.23).
- Irstead Quarter Stater dies G and H, are stylistically closer to dies A to C of die-group 1 than to die F, displaying ring and pellets above and below the crescents, and not in the four corner segments.
- Die F has more in common with the BHB and BHC Quarter Stater obverse dies than have the later Irstead Quarter Stater dies. In particular, die F and the BHB and BHC dies have pellets above and below the crescents, and ring and pellets in the corner segments.

Taken at face value, this stylistic evidence suggests a complete reversal of my ordering with the BHB and BHC Issues first, followed by Irstead Quarter Stater die-group 3 and finally die-group 1. I note this argument to present the relevant facts, but the evidence for my interpretation, with the BHB and BHC Issues postdating Irstead, is overwhelming. I suspect that the stylistic similarities between die F and the later BHB and

BHC types are simply the result of the later types using, by design or chance, an earlier prototype (for a discussion about similar examples in other fields see Gell 1998: 221–58).

III.10 Irstead Unit (I.23)

Figure III.19. Irstead A Unit from dies D:5

There are four die-groups, but five dies are known from a single example, therefore the die-group may consolidate (Table III.15).

Die-group	No.	Obverse dies	Reverse dies	CPD
1	27	2	2	13.5
2	7	1	2	4.7
3	2	1	2	1
4	9	1	4*	3.6
Total	45	5	10	
Plated	none			

Table III.15. Die-groups of the Irstead Unit (* includes 2 Quarter Stater dies)

The obverse has a crude right-facing head, with a large eye and ear and no lips. There is a lens or eye before the mouth. The head may be similar to that of the Snettisham Unit in having a scroll from the forehead, but this is only visible so far in die C. The hair is similar to that of the Snettisham Unit in being composed of concentric lines of angled pellets, with the angle of the pellets alternating on successive rows. The head has a crude ear, which is absent on the Snettisham Unit.

The reverse has a right-facing horse with an open keyhole-head. A spoked-wheel is above the horse with a tangential line from its base rising behind to a wing like shape,

either side of which are ring and pellet motifs. There is a ring and pellet below the horse, and a pellet below its tail. Minor die variations include a ring and pellet below the tail (die 3), the replacement of the upper wheel by a ring and pellet (die 4), and an additional pellet below the horse (die 7).

There are insufficient provenanced records to indicate whether the die-groups have different focusses of distribution. Most records are from the west of the region along the fen edge (Figure III.20).

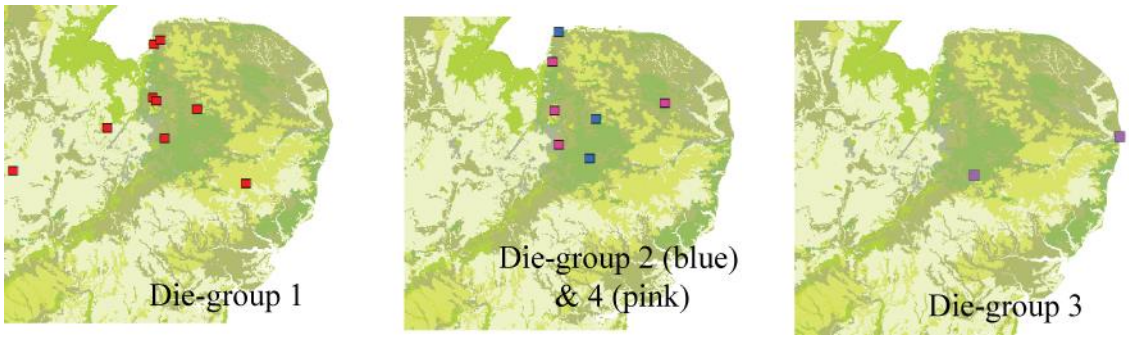


Figure III.20. Distribution of Irstead Units

The weight distributions (Table III.16) do not show a clear pattern and there is insufficient data to assess likely target weight.

Weight	1	2	4	All
Over 1.29	0		0	00
1.29–1.25	0	0		00
1.24–1.20	0	0	0	000
1.19–1.15	00	00		00000
1.14–1.10	0		0	00
1.09–1.05	000	0	0	00000
1.04–1.00	00		0	000
0.99–0.95	000			000
0.94–0.90	000		0	0000
Below 0.90	000		00	00000

Table III.16. Weight distribution Irstead Unit die-groups

III.11 Irstead Half Unit (I.23)

Figure III.21. The two types of Irstead Half Unit

This is an exceptionally rare type with only three known coins from four dies, all four are shown in Figure III.21.

There are two types of obverse, the first being a crude abstract design with three arms stretching out from a central point with crude lines branching from each arm. There is a ring and pellet, and possibly a larger ring between at least one pair of the arms. The second is a very crude head similar to that of the Plouviez Unit.

Both reverse dies are identical to Irstead Quarter Stater reverses, with a crescent above a right-facing horse. It is possible that both coins are struck by Quarter Stater dies; die 1 is very close to Quarter Stater die 13 and die 2 likewise to Quarter Stater die 7, but in neither case is the match exact.

None of the coins has a provenance and the only complete coin has a weight of 0.45g.

III.12 EBH Stater (I.24)

Figure III.22. EBH Stater from dies A:6

This type is relatively common, but most of the coins not from Dallinghoo are without provenance. Many are likely to be hoard coins from undisclosed sources based upon their condition and emergence onto the market in a series of closely timed groups. The coins fall into two die-groups (Table III.17).

Die-group	No.	Obverse dies	Reverse dies	CPD
1	218	1	8	48.7
2	115	3	6	25.6
Total	333	4	14	
Plated	None			

Table III.17. Die-groups of the EBH Stater

The most common obverse is as the Irstead Stater, but with a larger central floral design. The two dies of this type struck most coins and each was used until it was well-worn and badly flawed. Two additional obverse dies with back-to-back crescents at the centre of a pelleted cross were used at the end of die-group 2, which are only known from four coins. These dies appear to be the first Icenian Staters to bear the back-to-back crescents which were later used on most Issues.

The reverses are easily distinguished from those of the earlier Irstead Stater as they show a deeply cut horse with a spiked mane, composed of five or so bold pointed lines; similar bold marks behind a single line represent the tail. The horse is standing and has double lines for the upper legs, with exception of the realistic rear-most leg, and a single line for each lower leg. There is an exergue in the form of a horizontal ladder, a style also used on the BHB Stater. The first two dies in die-group I have a pellet rosette surmounting a torc above the horse. In later group I and all die-group II dies this element of the design is replaced by a large wheel. Dies 10, one of the earliest dies of die-group II, may have a pelleted rosette within the upper torc. All die-group I reverse dies and the first

two die-group II dies have a small wheel below the horse; this is replaced by a seven pellet rosette in the final four die-group II dies.

There is no weight differential between the two die-groups; the cleaned coins from Wickham Market have an almost identical average weight for each die-group at 5.431g for die-group I and 5.436g for die-group II.

Metal analysis suggests that die-group I Staters have a higher gold content than die-group II, with eight die-group I samples showing an average gold content of 39%, compared with 35% from the four tests of die-group II coins. The chart in Figure III.23 shows that although there is one anomalous result, the higher levels of gold in die-group I all relate to the coins with the earliest dies; there are no results over 40% after die 5.

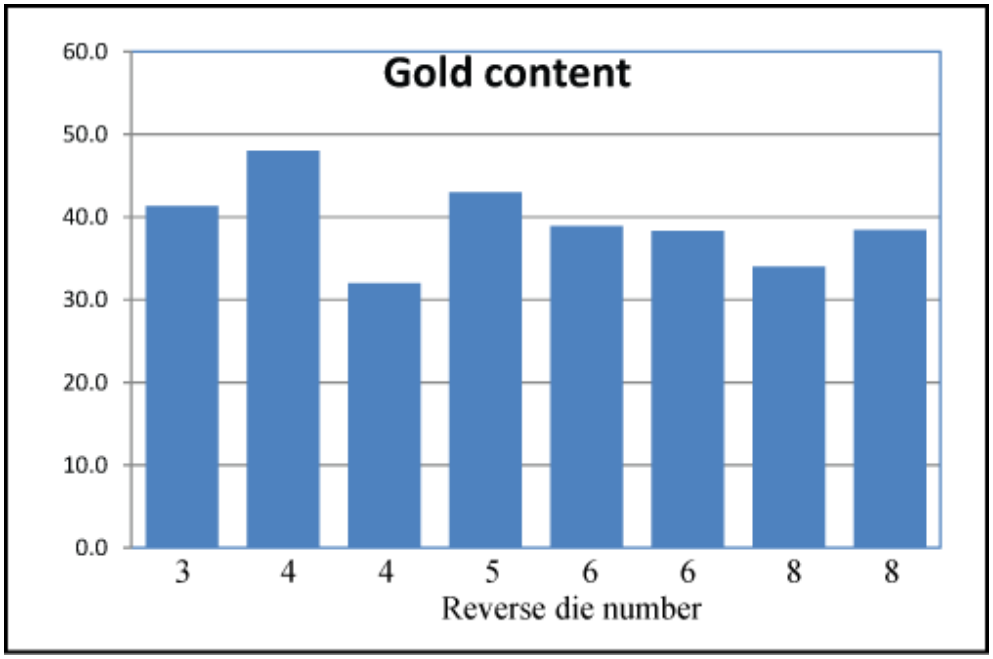


Figure III.23. Gold content of die-group 1 Staters

The four results from the die-group II coins show two coins, the earliest and the latest, with 38.1% and 38.9% gold and the other two averaging 32.4%. The two higher results being similar to the later die-group I results (Appendix V).

There are no recorded plated Staters.

III.13 EBH Unit (I.25)

Figure III.24. EBH Unit from dies A:2

Like the Stater, there are two die-groups of Units (Table III.18).

Die-group	No.	Obverse dies	Reverse dies	CPD
1	10	1	4	4
2	34	2	6	8.5
Total	44	3	10	
Plated	None			

Table III.18. Die-groups of the EBH Unit

The dies for each die-group are distinctive and are described separately below:

Die-group 1

All coins are struck from a single obverse die which bears a right-facing animal, probably a representation of a boar, shown in profile. Below the boar appears to be the remains of a five pellet rosette, partly obscured by a die flaw on all known examples. The hairs on the back of the boar are enclosed by an outer line; towards the front, two of the hairs are cut by a line slanting backwards to the body. This line may be a die-flaw, and seems unlikely to be the spear seen on North-Eastern coinage and possibly on BHC Units. The tail is represented by a single line and is straight and not boar-like. There is a curve of substantial pellets above the boar, which may form an outer border. The boar is standing on a ladder-like exergue.

The reverse has a right-facing horse, with a large open head. The legs of the horse are similar in execution to those of the boar: between them is a rosette of either five or six outer pellets. The exergue is only visible on one die, but appears to be of a horizontal ladder design. The horse has a pellet mane and a single-line tail, with substantial hairs on the outer side and a pellet below it.

The design above the horse is complex. The main ornament is a ring containing a cross; on die 4 there is a vertical line above the ring and either side of this is an equilateral triangle surmounted by a pellet. Another line stretches out from the left of the ring and cross, touches a point of the triangle, then continues and meets a line arising from the tail. Other elements are likely to be present, but are so far unseen. The other two reverse dies appear to also have complex upper designs, possibly similar to that described, although die 2 appears to have crosses in the field. The front of the head is rarely visible but evidence of a line emerging from the mouth can be seen, suggesting the 'fire' shown on earlier Units.

One of the reverse dies is a late strike from Irstead Quarter Stater die 3, as described in III.9.

Die-group 2

The two obverse dies are a simplified version of that of die-group 1. There are fewer hairs on the back and these are pellet-ended and without an outer border. Above the back are three connected crescents giving the appearance of swagging. There is a rosette between the boar's legs and a pellet beneath the tail. The exergue is a horizontal ladder and there is only a single foreleg, which has the upper half drawn by two converging lines to form a triangle. To the right of the foreleg is a pelleted design, probably a triangle or a rosette.

The six reverse dies are similar to those of die-group 1, but the upper elements are simplified. On the first three dies (dies 5–7) is a six-spoke wheel. On the other dies there

are three pellets along the back, above which are two downward-facing linked crescents. This area is only seen fully on die 9; there may be only a single crescent on the other two dies, as on the Irstead Quarter Stater. On four dies, the horse has a distinctive mane composed of a few rear-facing sharply-pointed lines, rather than the pellets seen in die-group 1, these lines being omitted on dies 7 and 10. All of the dies, where the area is visible, have pellet rosettes below the horse. Where visible the reverse dies have a line of three pellets below the tail with the exception of die 9, which has one. The area in front of the face is visible on two dies showing a line issuing from the mouth. The exergue is only revealed on one die and is a horizontal ladder.

Stylistically the two die-groups appear to represent a continuing sequence with a break in the die chain. However, as discussed in 3.4.4, there are differences in distribution between the two die-groups.

Many Units are damaged and thus weight statistics need to be treated with caution. There are only six reliable weights from die-group 1 and therefore the results for both groups are combined in Table III.19. Two examples have the highest weight of 1.16g and there is a cluster of 10 from 0.98g to 1.03g.

Weight	
1.16	00
1.14–1.10	00
1.09–1.05	0
1.04–1.00	000000
0.99–0.95	00000
0.94–0.90	000000
Below 0.90	000000000

Table III.19. EBH Unit weight distribution

Metal analysis is only available for two coins, both of die-group 2. These reveal high bullion contents of 83.7% and 92.7%.

III.14 EBH Half Unit (I.25)

Figure III.25. EBH Half Units Spiral and Boar sub-types

These fall into two distinct sub-types (Table III.20). There are three unlinked sequences of the spiral sub-type, but the dies of the boar sub-type are now all die-linked, as a result of a coin found after the closure of the database. The coins are very rare and the sub-types may eventually follow the other denominations in consolidating into one die-group for each sub-type.

Sub-type	No.	Obverse dies	Reverse dies	CPD
Spiral	13	3	5	3.2
Boar	3	2	2	1.5
Total	16	5	7	
Plated				
Boar	2	2	1	

Table III.20. Sub-types of EBH Half Units

Descriptions of each sub-type are as follows.

The Spiral sub-type

The obverse design is a three armed spiral. On the clockwise side of each arm are outward pointing spikes whilst alongside the other side are a line of pellets. There are three dies although it is possible that dies B and C may be the same die with re-cutting. The reverse is a smaller thinner version of the horse on the EFH Unit, but with only single fore and rear legs. There is either a pellet-triangle above and below the horse and a single line

upper foreleg, or a five petal rosette above and a six petal rosette below and two lines making up the upper foreleg. The two types of reverse are die-linked and it appears that the pellet-triangle type is the earliest.

The Boar sub-type

The obverse is a right-facing boar with a very narrow back with backswept hairs. Only single front and rear legs are shown, the upper front leg is composed of two lines. Below is a pellet-rosette with six petals and there appears to be a rosette above the boar and possibly a pellet-triangle above the single line tail. In general the design is evocative of the EBH Unit die-group 2 obverse, although the straight tail does not look like that of a boar. The reverse is similar to the rosette variety of the spiral sub-type, but has a more elongated horse's head and possibly only a five petal rosette below. There is a device before the horse which cannot be seen in full, but which may be a crescent.

	Sub-type	
Weight	**Spiral**	**Boar**
0.60		0
0.59–0.55	00	
0.54–0.50	00000	
0.49–0.45	000	
0.44–0.40	0	
Below 0.40	00	0

Table III.21. Weight distribution for EBH Half Units

There is only one complete Boar Half Unit with a known weight at 0.6g; the weight distribution of Spiral Half Units in Table III.21 implies target weight lower than this. There has been no metal analysis.

III.15 BHB Stater (I.26)

Figure III.26. BHB Stater from dies B:4 (left) and BHB(A) Stater from dies M:13 (right)

The BHB Stater is divided into two sub-types. All the dies of BHB(A) form a single linked sequence as do all the dies of the main BHB sub-type except for two late pairs of dies (Table III.22).

Die-group	No.	Obverse dies	Reverse dies	CPD
Main sub-type				
Die-group 1	397	11	12	34.5
Unlinked	2	2	2	1
BHB(A)	41	4	2	13.7
Poor	1			
Total	441	17	16	26.7
Plated	13	7	9	
	454			

Table III.22. Die-groups of the BHB Stater

The key element of obverse design is the central back-to-back crescents. In the main sub-type there is a pellet-triangle above and below the crescents, and a horizontal line of pellets either side of them. In the early dies, the lower part of the field below the crescents is raised, making the coin thinner in this area. There are lines in a V shape spreading out from the tips of the crescents. The BHB(A) obverses resemble EBH dies C and D, but with a ring and pellet device in each corner. Die P has additional detail with

thumbnail-like crescents and decoration in the field. The final obverse die of BHB(A) is similar to late dies of the main sub-type.

The reverse dies of the main sub-type have a star immediately below the horse. The upper detail is variable, with the first four dies having a pelleted rosette as the principal element; this is then superseded by three or fewer pellets in a pellet ring. All have additional decoration. There are only two BHB(A) reverses and both have pelleted rosettes as the principal design elements above and below the horse. The design below the horse on the BHB(A) dies, like the obverse dies M, N and P, shows continuity of design from the EBH group 2 dies. Two distinctive styles of horse's head were introduced with the BHB coinage. The earliest type is based around a figure-of-eight and is shown clearly on dies 1 and 13. The second type is formed with a pellet, a crescent and a rectangle, and is shown clearly on die 11. These heads were also used on BHB Units. Die 5 is anomalous, in that the head appears to be depicted in a more naturalistic manner evocative of early local period Units.

The reverses of the pairs of dies (R 15 and S 16) from the main sub-type, which are so far not linked into any sequence, are very similar in both style and execution to some dies of the subsequent BHC Stater.

Weight and metal content is discussed in Chapter 4.

III.16 BHB Quarter Stater (I.28)

Figure III.27. BHB Quarter Stater from dies B:1

There are two die-groups which I believe each relate to one of the BHB sub-types, as discussed below. The key statistics are shown in Table III.23.

Die-group	No.	Obverse dies	Reverse dies	CPD
BHB – main type	47	2	1	31.3
BHB(A)	8	1	1	8
Total	55	3	2	22
Plated	2	2	2	

Table III.23. Die-groups of the BHB Quarter Stater

There are two styles of obverse which, based on die wear, were used simultaneously on the main sub-type of BHB. The first was used on both sub-types and differs from the Irstead Quarter Stater in having a squarer central box, divided into nine small boxes by straight vertical and horizontal lines, rather than the angled dividing lines and curved sides of the Irstead. There appear to be small pellets in the small boxes of die B, although not in die C. Other differences from Irstead Quarter Staters are: the four lower branches of the branched structure each end in a ring and pellet, and above and below the crescents are pellets rather than ring and pellets.

The second style of obverse, used only on the main sub-type, has a central double band of pellets in the form of a wreath. In the centre are two back-to-back crescents, either side of which is a ring and pellet. In one quadrant of the only die is a very faint large ring, which may be a remnant of an earlier design.

The imagery on the Quarter Stater attributed to sub-type BHB(A) is generally the same as that used on dies in the main sub-type, but follows those of the BHB(A) Stater in being neater and ‘tighter’ in execution.

The reverse of both sub-types has a right-facing stepping horse with a small atypical realistic face. Below the horse is a ring and pellet, and above a trefoil; there is a pellet before the face on die 1 and a ring or crescent on die 2. There is a slightly strange V shaped arrangement of pellets below the stepping leg on both dies. The only other known

Icenian example of this appears on BHB Unit die E, next to the foreleg of the boar (Figure III.28).

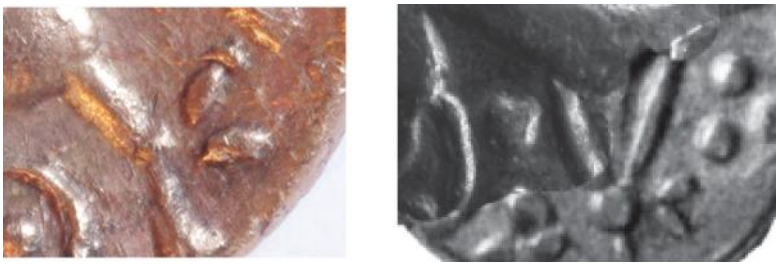


Figure III.28. Pellets forming V next to knee on Quarter Stater (left) and Unit (right)

The horse's tail is made up of a single line with parallel lines sweeping away behind it. This tail form is seen on other BHB denominations such as the Unit die 30 and the Stater die 13. The rear of the horse is similar to that seen on other BHB dies, such as BHB(A) Unit die 3. Another similarity with other BHB denominations is the horse's mane, particularly on die 2, which is composed of tightly stacked small pellets of varying sizes; a similar technique was used on many Stater dies, including 4, 8 and 10. Reverse die 2 is unusually small and much of the die appears on the struck coins, and there is none of the additional detail which usually emerges from the outer reaches of earlier Icenian dies.

The weight of the two sub-types appears similar (Table III.24).

	Sub-type	
Weight	**BHB**	**BHB(A)**
1.1	0000000	
1.09 – 1.05	00000000	00
1.04 – 1.00	00000000000	00
0.99 – 0.95	0000	0
Below 0.95	000	

Table III.24. Weight distribution of BHB Quarter Stater

III.17 BHB Unit (I.27)

Figure III.29. BHB Units from dies F:8 and P:24

The Units of sub-type BHB(A) are considered separately in III.19. BHB Units separate into two main die-groups, which have similar weight and distribution, and appear likely to represent a single chronological sequence linked to the main die-group of BHB Staters (Table III.25). The reverse dies follow the Stater in showing a chronological progression from a figure-of-eight horse's head to the more complex head based on a crescent-shape, as shown in Figure III.29. I have included in die-group 1 an unlinked pair of dies which is clearly related to the start of the sequence, and die-group 3 is composed of two small sequences of dies with only two non-hoard provenances.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	77	5	8	11
2	168	9	19	11.9
3	11	2	3	4.4
Poor	9			
Total	265	16	30	11.2
Plated	16	10	11	
	281			

Table III.25 The die-groups of the BHB Unit

The obverse is a right-facing representation of a boar, shown in profile. The 17 dies are very similar, to illustrate which I describe the dies in some detail. Only one front leg of the boar is depicted and this is in a stylised form; the upper part is represented by

two converging line forming a triangle, from which drops a single line to represent the lower leg. One of the rear legs is well-described with its thigh dropping slightly backwards to a pellet representing the knee, from which the single line representing the lower leg goes slightly forward. In front of this is the other rear leg starting in or below the groin, and echoing the shape of the first but using a single line. There are four pellets between the legs, a triangle sitting on the exergue with an additional pellet above its apex.

There are eight to ten hairs on the back of the boar, all pointing forwards; each alternate hair has a pellet at the base. Die A is an exception having hairs pointing rearwards and two extra hairs at the front pointing forwards. At the front of the boar is a single rear-facing line, probably representing a tusk. The elongated front of the body ends in a pellet and has a single pellet to represent an eye. The tail is a single line which includes a loop immediately behind the boar, single lines on the upper surface to represent hairs, and within the loop is a pellet. In front of the foreleg is a pellet-ring with a central pellet; as yet no examples show the complete ring which appears to have seven or eight outer pellets. The exergue is a double line with a central row of pellets. In a horizontal line above the boar are four rings, most of which are hollow, but the second from the rear contains two pellets. In the first three dies, the boar has a hunched up, flea-like appearance best seen on die C.

The reverse is a right-facing horse which follows the Stater in having two styles of head. The first is figure-of-eight shaped; a short line drops from the mid-point of the head, possibly indicating a rein. The mane is composed of horizontal dashes enclosed in an outer line, similar to that used on the early LFH dies. All four legs are represented by jointed single lines although the rear-most leg has more profile in the upper section. The breast of the horse has two elongated pellets at right angles to each other and there is a single line tail with single line hairs in the lower section. Below the horse is a five or six rayed star and there is a single line as an exergue. The exergue is composed of parallel lines

containing a row of pellets, as on the obverse. Above the horse is pellet-triangle and this is enclosed by an arc that stretches from the base of the tail to mid-point on the mane. Above this arc, two similar arcs meet at its mid-point, and a further arc starts at the junction of the lower arc and the mane. The full upper design has not yet been seen, although there are clearly similarities with the design used on the much earlier Plouviez Stater. The earliest three reverse dies echo the earliest obverses in depicting a rather more hunched animal than in subsequent dies; these dies also differ in having a small pellet terminating the uppermost ray of the star below the horse.

In the second type of reverse, the horse has a head composed of a single pellet away from which sweeps a curved line with a rectangular pellet at the end. Where visible there are two forward-curving lines above the head, presumably representing ears. There are no other discernible differences between the two styles of reverse, except that the drawing of the second style is generally much cruder. Die 30 from die-group 3 is of the second style but is anomalous in that it is well drawn and has a different exergue with a row of pellets within two lines.

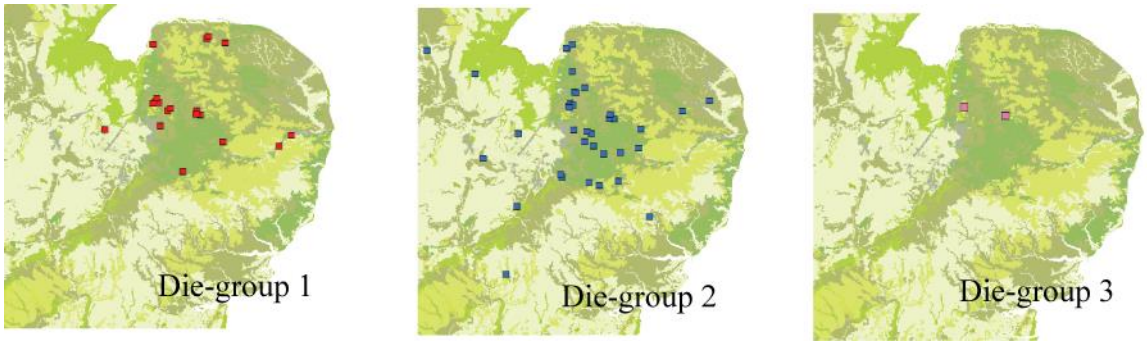


Figure III.30. Distribution of BHB Units

The three die-groups have a similar distribution focussed on the fen edge and Breckland, with a scatter elsewhere (Figure III.30). The Unit probably had a target weight of some 1.1g to 1.2g (Table III.26).

	Die-group			
Weight	**1**	**2**	**3**	**BHA**
0ver 1.29		0		
1.29–1.25	0	0		
1.24–1.20	00000	0000000	00	0
1.19–1.15	0000	0000000000000		
1.14–1.10	00000000	00000000000000000	00	000000
1.09–1.05	00000	000000000	0	000000000
1.04–1.00	0000	0000000000000000000		000000
0.99–0.95	000000	000000000000000000	0	000000
0.94–0.90	000000	0000000	0	000000
Below 0.90	9	26	1	15

Table III.26. Weight distribution BHB Units

III.18 BHB Half Unit (I.28)

The Half Units of sub-type BHB(A) are considered separately in section III.20.

Figure III.31. BHB Half Unit from dies C:4

There are two die-groups but most recorded coins are from die-group 2. It is likely that the three dies making up die-group 1 are the earliest and will eventually be linked to the second die-group.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	4	1	2	2.7
2	53	3	3	17.7
Total	57	4	5	12.7
Plated	5	5	4	

Table III.27. Die-groups of the BHB Half Units

The obverse has a right-facing boar are similar to that of the Unit, but without pellets amongst the hairs on the boars back. There is a ring and pellet below the boar and two rings above it between which is a pellet-triangle; the rear ring contains two pellets and the front a single pellet. Behind the boar, on at least two dies, is a device that begins with two diverging lines leading back from a pellet; the full device is not visible. In front of the boar is a pellet-triangle, rather than a rosette.

The reverse has a right-facing horse, on most dies its body, neck and limbs are much less modelled than on the Unit, with the breast being formed by a ring. The horse on the first two dies is similar to that of the Unit and has a similar mane; on later dies it is formed by stacked pellets as on the Stater and Quarter Stater. The head is usually identical to that used on most early Units, but die 1 has a triangle-shaped face as on die 1 of the Units. Below the horse is a pellet-triangle and above is a six-petal rosette. Where seen, there is a ladder exergue rather than the line and pellet arrangement of the Unit.

The distribution of Half Units is tightly focussed on Breckland, as is the main concentration of Units. There are no reliable metal test results and it is not possible to obtain conclusive information from the wide spread of weights in Table III.28, as specimens are generally in poor condition.

Weight	BHB	BHA
Over 0.59	0	
0.59–0.55	000	0
0.54–0.50	000000000	0000
0.49–0.45	0000000000	0
0.44–0.40	00000000000000	
0.39–0.35	00	
Below 0.35	0000000	000

Table III.28. Weights of BHB Half Units

III.19 BHB(A) Unit (I.28)

Figure III.32. BHB(A) Unit from dies A:1 and P:8

There are four die-groups but groups 1 to 3 have similar features and may eventually consolidate; the dies of die-group 4 can be readily separated from the other groups. As shown in Table III.29, there are twice as many obverse dies as reverse dies, which is very unusual. Six of the obverse dies are known from a single example and, although they have been carefully examined, it is possible that there may be duplication as a result of dies being re-cut.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	10	2	1	6.7
2	32	6	2	8
3	2	2	1	1.3
4	21	6	4	4.2
Total	65	16	8	5.4
Plated	2		1	

Table III.29. Die-groups of the BHB(A) Unit

Die-groups 1 to 3

These die-groups are described in terms of their variation from BHB Units of the main sub-type. The right-facing boar on the obverse has between its legs a pellet-triangle, rather than four pellets. Before the front leg is a pellet-triangle and in front of this, on the exergue, is a ring and pellet. Although not usually fully visible, there is device below the

nose of the boar (seen clearly on die B) which resembles the depiction of the horse's face on the reverse dies. There is a ring and pellet on the boar's body which probably represents an eye. On the back of the boar are seven forward-facing hairs and a backward-facing tusk, ahead of which two additional forward facing lines (probably representing ears).

The design behind and below the boar's tail is much more complex than on BHB Units. Die F is the clearest and reveals a wreath or leaf-like design extending back from the loop of the tail; above which is a pellet-triangle and below it is a ring and pellet. The lower part of the tail seems to be represented by a straight, ring and pellet-ended line. It is possible that the detail seen on die F may be exceptional. Above the boar is an elaborate pattern consisting of two pellet rings, each containing either one or three central pellets, separated by two vertical solid lines, between which is a line of pellets; in front of this design is a ring and pellet.

The reverse has a tall horse to the right, standing on an exergue which consists of two parallel lines with an inner line of pellets; the horse appears to be standing upright without the impression of movement seen on BHB Units. The horse's head is similar to the second type of BHB Unit, but more elegantly drawn. The horse's legs are represented by single lines and jointed with pellets. All four are shown but the rear foreleg is unusual, having an extra joint in the upper leg. Above the horse is a large pellet ring containing a pellet-triangle; behind this is another, larger pellet-triangle, which is repeated before the foreleg.

Die-group 4

The obverses are as die-groups 1–3 except that the eye of the boar is represented by a single pellet, and there is a different design above the boar. A full image of the upper area is not available, but on at least four of the six dies it includes V shapes; these probably

form a zigzag pattern, although on dies L and P they give an impression of being loosely based upon lettering.

The reverses vary from those of die-groups 1–3 in that the upper pellet ring is empty; the central area of this ring seems to be raised suggesting that something may have been erased from the die. Most dies differ from the earlier die-groups by having both upper forelegs of the horse pointing forward, giving the impression of movement.

Figure III.33. Distribution of BHB(A) Units

The distribution of BHB(A) has slightly more focus on the fenland, and also proportionately more coins to the east of the region than BHB. This distribution is also seen in the few non-hoard finds of die-group 2 of the BHB Stater. The distribution of the two varieties of dies od BHB(A) Units are broadly similar (Figure III.33).

III.20 BHB (A) Half Unit (I.28)

Figure III.34. BHB(A) Half Unit from dies A:2

There are thirteen known coins which were all struck from a single obverse and two reverse dies.

The obverse has a central design of three back-to-back crescents; adjacent to the centre of each crescent is a pellet, from which are drawn two pellet-ended curved lines giving the appearance of a simplified gull; an incurved line links the two outer pellets and forms a triangle. Outwards from the junction of each central crescent is a pellet-triangle.

The reverse has a right-facing horse very similar to that seen on die-group 4 of the Unit, but lacking the outer line enclosing the mane. Below the horse is a pellet-triangle and above is a six petal rosette. There is a ladder exergue, rather than the lines and pellets used on the Unit.

Six coins have a provenance and three of these were found separately over many years at Saham Toney, the others being well dispersed in the region.

III.21 BHC Stater (I.29)

Figure III.35. BHC Stater from dies F:8

There are two significant die-groups and two unlinked pairs of dies (Table III.30).

Die-group	No.	Obverse dies	Reverse dies	CPD
1	38	4	5	8.4
2	8	1	4	3.2
Unlinked	5	2	2	2.5
Total	51	7	11	5.7
Plated	8	6	7	-

Table III.30. Die-groups of the BHC Stater

The obverse design is similar to the BHB Stater, with two back-to-back crescents below which is horizontal line; the area below this line stood proud on the original die and hence is thinner on the struck flans. Below the crescents, but above the line, is a pellet-triangle. Both below the line, and above the crescents, are five-rayed stars; on all dies there are two separate pellets placed adjacently within the rays on at least one of these stars. There are two pellets radiating out from the centre of each crescent, and two lines forming a V radiating from the tips of each crescent. The upper 'leg' of the lower V's rises to touch the second pellet and the lower drops to touch the horizontal line and terminates in a pellet.

The reverse has a right-facing horse with a pellet-triangle on the breast and a pellet-mane. It has single line legs and a head similar to that on early BHB Staters. There is a pellet below the tail and above the horse is a yoke or phallic shape, which can also be read as a hidden face; this is usually formed by three linked U's, the middle one of which is much deeper than the others. The central loop contains a pellet on all dies, except 1 and 2. To either side of the phallic device is a pellet-triangle. Below the horse is a ring and pellet with seven radiating lines forming a star, with a pellet to the upper-left. The phallic device is repeated in an inverted form on the BHC Unit.

The unlinked pair of dies G:10 are distinctive. The obverse lacks the two pellets within the points of the stars; the reverse has only a ring below the horse, no pellet in the central loop of the phallic device or below the tail, possibly no pellet-triangles above the horse, a differently drawn mane, and odd marks on the horse's thigh and chest. Despite initial concerns it appears that these coins are genuine, a provenanced example has been recorded since the close of the database.

The sparse distribution data in Figure III.36 reveal that the only two die-group 2 coins with a provenance were discovered to the south-west of other finds; implying that the two die-groups may represent separate centres of production.

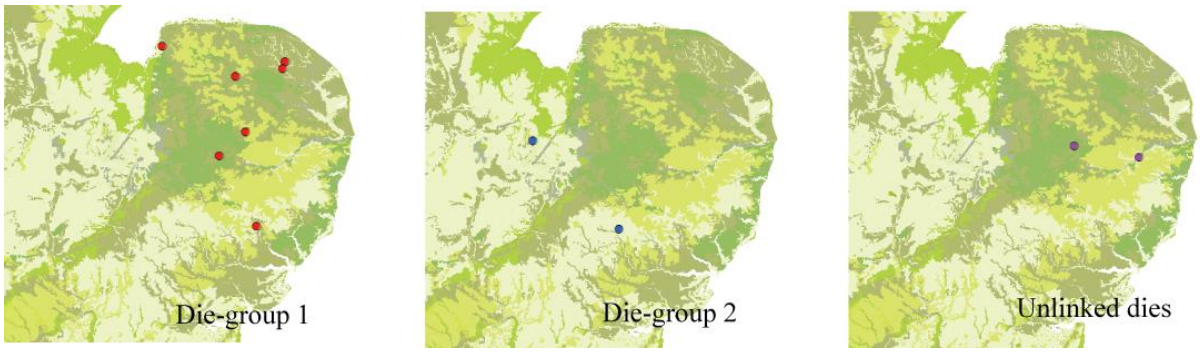


Figure III.36. Distribution of BHC Staters

	Die-group		
Weight	**1**	**2**	**Other**
5.40 and over	0		
5.39–5.35	000000000000000	0	
5.34–5.30	00000000		
5.29–5.25	00	0	0
5.24–5.20		00	
Below 5.2	0	00	

Table III.31. Weight distribution BHC Staters

Table III.31 shows that 85% of die-group 1 weights fall within a range of 0.1g, the most tightly controlled weight range of any Icenian Stater found in the study (4.3.1). Die-group 2 seems to have had a lower target weight than die-group 1.

III.22 BHC Quarter Stater (I.29)

Figure III.37. BHC Quarter Stater from dies M:16

This rare type has so far only been found from two unlinked pairs of dies (Table III.32).

Die pairs	No.	Obverse dies	Reverse dies	CPD
1	2	1	1	2
2	5	1	1	5
Total	7	2	2	3.5

Table III.32. Die pairings of the BHC Quarter Stater

The obverse is identical to that of the BHB Quarter Stater, except that:

- Small single pellets are placed symmetrically in five of the nine small boxes.
- The ‘corners’ of the design are made up of rings rather than larger ring and pellets.
- The branches are also more stylised and curve in the opposite direction.

The horse on the reverse has an open head facing a pellet and a mane made up of single elongated pellets. The front and rear legs are composed of single lines, and the tail is a single line kinking inwards towards the rear leg. The design of the horse including its legs, head, tail and mane is identical to that of many BHC Units, for example die 52, and is unlike types of the early and middle denominational periods. The later Anted and Ecen Units have additional detail on the tail as well as a double row of pellets making up the mane. Above the horse is a five-rayed flower or star with a central pellet; above and below the tail is a single pellet, and below the horse is a ring and pellet.

Weight was tightly controlled with four of the seven recorded weights being either 0.99g or 1.03g. There are no recorded provenances and no metal analysis available.

III.23 BHC Unit (I.30–2)

Figure III.38. BHC Units from dies JA:96 (left) and A:3 (right)

There are twelve die-groups, including die-group 3 which is an amalgam of three similar small groups. The production of BHC did not coincide with a period of hoarding and many dies are known from only a single example. The chronology of the dies within die-groups is not fully resolved and the number of die-groups will almost certainly reduce as new die-links are found. There are two styles of Unit which are described below; the sub-totals in Table III.33 relate to these two styles.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	63	4	13	7.4
2	25	3	5	6.2
3	14	3	6	3.1
4	37	3	7	7.4
5	7	1	3	3.5
6	33	3	9	5.5
7	32	6	5	5.8
Sub-total	211	23	48	6.9
8	59	3	17	5.8
9	10	1	2	6.7
10	13	1	4	5.2
11	59	4	14	6.6
12	57	3	12	7.6
Sub-total	198	12	49	6.5
Total of die-groups	409	35	97	
Unlinked	6	4	5	
Other*	20			
Total	435	39	102	6.1
Plated	20	11	14	

Table III.33. Die-groups of the BHC Unit * The dies within ‘other’ may include plated coins

The obverse is a right-facing animal, assumed to be a representation of a boar, shown in profile. Only one front leg is depicted, drawn with a single line showing a clearly defined elbow joint and a thickened end to illustrate the foot, which looks like the flights of an arrow. The rear leg is well defined with a Z shaped form drawn with a single line, thick above becoming thin for the lower section. In front of the rear leg is a single arcing line starting in the groin and ending near the tip of the rear leg, with a thickened ending similar to the foreleg; this may be a representation of a phallus rather than a second rear leg. There is a single pellet below the boar.

There are representations of hairs above the back which follow a strict formula: at the front are four single lines curved slightly towards forwards; behind these are two longer hairs, the tops of which curve towards the rear giving an elongated reverse S, and behind these is a shorter forward curving pellet-ended hair. Above the front four hairs is a pellet rosette usually made up of seven or eight pellets. The eight-pellet types only appear to occur in die-groups 8, 9 and 12. The tail is a single line in the form of an S, the lower curve of which nearly touches the rear leg; within each curve is a pellet. The front of the boar is square-shaped; from the upper corner emanate two short diverging pellet-ended lines, with a single pellet between and slightly out from them. A long, hatpin-like device angles down through the base of these two pellet-ended lines; the upper half of this device touches the tip of the final hair on the right of the boar's back and the lower tip is close to the foot of the foreleg. The pin has a forward facing loop at the top and there is usually a pellet within this loop. This device may represent a spear or a sword. The lower half of the design has an outer border comprising a semi-circle of pellets which run from the tip of the lower of the two pellet-ended lines at the front of the boar to finish below the foot of the rear leg. The boar's body contains a single pellet probably representing an eye, although this is often not visible.

The reverse is a right-facing horse with an open style of head with a central pellet and two forward curved lines as ears. In front of the face is either a single pellet or three pellets in a row, the outer two of which mark the ends of the lips. Those with three pellets may be the later dies as these are also seen on Anted Units. The horse has a pellet mane, and all four legs are represented by jointed single lines. There is a single-line tail, below which is either a single or pair of pellets; there is an element of die-group specificity to this variation. Certain dies have a single pellet within the line of the tail (see dies 77, 86, and 93). At least two of the reverse dies in die-group 10 (dies 68 and 69, although not clear in I.31) have lines flowing back from the tail suggesting hairs, a device also used on subsequent Anted Units implying that this die-group is late in the sequence.

Below the horse is an upright cotter pin-like device with a pellet in the upper loop; the lower ends splay out and there is a pellet adjacent to each end. In conjunction with this pellet there are two others, and the alignment of these triangles varies but is usually consistent within a die-group. The cotter pin device seems to be simplified version of the device seen above the Stater, and both may be phallic symbols. Above the horse are two pellet-triangles between which is a small ring containing a cross. Certain dies have an additional pellet above the upper ring (see 75, 81 and 92) others an elongated pellet to the right of the front foreleg (see 78 and 83), a feature used on the earliest Anted Unit dies (see 1, 3 and 4) where the pellet becomes comma-like. The reverse has no exergue and there is no outer delineation of the design. The detail on each die is remarkably consistent and the minor variation, whereby the lower pellet-triangles are omitted on die 55, is exceptional.

Although there is little change to the elements of imagery described above, there are two styles of depicting the boar on the obverse. The first style is seen most clearly in die-groups 11 and 12 and represents the boar in a hunched flea-like pose; the second style depicts a flatter backed more elongated boar, and clear examples can be seen in die-groups

1 and 4. The different styles are generally die-group specific and usually correlate with the orientation of the pellet-triangles below the horse on the reverse dies. The two styles have almost identical areas of distribution. Both are reflected in the Half Units, and as discussed in 3.4.6 stylistic evidence suggests that these were produced in parallel.

There are some differences of emphasis in the distribution of some die-groups, although there is also considerable overlap, as shown in the examples in Figure III.39.

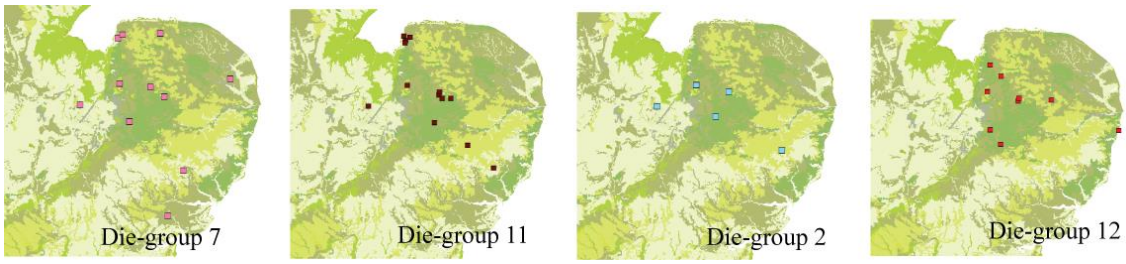


Figure III.39. Distribution of specimen BHC Unit die-groups

III.24 BHC Half Unit (I.29)

Figure III.40. BHC Half Units from dies K:10 (left) and B:3 (right)

The obverse has the two stylistic varieties of boar seen on the Unit, both also having the spear or sword-like device at the front of the animal. The surrounding detail is variable as discussed below. There is only one significant die-linked group of BHC Half Units which is composed of dies with the hunched variety of boar. The remaining dies comprise 6 unlinked pairs and two small groups of three dies (Table III.34).

Die-group	No.	Obverse dies	Reverse dies	CPD
1	27	2	4	9.0
Others	12	9	9	1.3
Total	39	11	13	3.3

Table III.34. The BHC Half Unit

The flatter-backed boar has below it a single pellet, and a pellet-rosette composed of a central pellet and a ring of six pellets. There are six forward curving hairs on the back. Above these, and touching certain of them, is an arc of four small rings; the rear ring is located above the tail and the foremost sits on the first hair and is also touched by the spear-like device, which bends backwards above the boar but drops straight down below it. The spear or sword is represented by a single short, pellet-ended, line at the front of the boar's body.

The hunched variety of boar has two pellets between the boars legs placed vertically and has no rosette. The detail above the boar is usually similar to that seen on the first variety, but on at least two dies the upper rings are replaced by a pellet-rosette. There is an outer semi-circle of pellets around the lower half of the die, as seen on many Unit dies, an area so far only visible on this variety of obverse. The two varieties of obverse are die-linked in a short sequence (dies C:4:D), which unfortunately does not clarify their relative chronology.

All reverses have a right-facing horse, below which is a five-pointed star with the uppermost ray often ending in a pellet. Above is a ring and pellet, either side of which is a pellet-triangle. The horse shows all four legs, has a pellet mane and a pellet below the single line tail. The horse usually paired with flatter-backed boar, has an open head similar to that of the BHC Unit. A second variety of horse, usually paired with the hunched boar, has a head composed of a small pellet and a curved line, with ears formed by two forward sweeping lines. This head is similar to that seen on BHB(A) Half Units and certain BHB

Units. The second variety of reverse has a curved line from the breast to the nose, possibly representing a rein. The head with a connected rein is used on all subsequent Mint A Half Units.

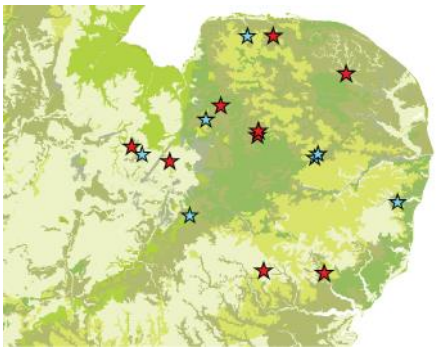


Figure III.41. Distribution of BHC Half Units

There is no significant difference between the overall distribution of die-group 1 coins, shown in red on Figure III.41, and the remaining finds. However there have been five separate finds from the Saham Toney area which are all die-group 1 coins, and only single coins have been found elsewhere. It seems likely that this type was produced in more than one location and in conjunction with the production of the BHC Units. The largest production was probably in the Saham Toney area.

III.25 The Anted Issue: inscriptions

The inscription on this coinage is commonly referred to as Anted, although the actual inscription varies. The Unit and Half Unit are mostly inscribed ANTÐ with the first three letters being formed as a single ligature and the first stroke of the A being the lower front foreleg of the horse; a few Unit dies and the Stater are inscribed ANTEÐ with the E also being part of the ligature, and Unit die 28 bears a fuller inscription ANTEÐI. A similar inscription appears on the Anted SIA type (III.48), which has ANTEÐI on the Half Unit and ANTEÐIO on the Unit, in both cases with the first four letters ligated.

The inscription has the letter Ð with the bar within fully crossing the D. It is thought that this letter, often referred to as ‘Tau Gallicum’, is intended to represent a

sound which was not represented in the Latin alphabet. Tenney Frank (1935) argued that this letter, together with ÐÐ and theta, represented a fricative or lisped s. Neil O'Sullivan (1986) uses an example given by Frank to demonstrate that in Gaul the Romans transcribed (T)HYÐRITANVS as *Thysdritanus*, suggesting an sd sound. Another example from the continent relates to the Goddess Sirona (spelled in this way on an inscription from Bordeaux CIL X111, 00582), but spelled elsewhere as ÐIRONA (an example is CIL X111, 04498 from Saint-Avold). Other examples of attempts to replicate this sound using Latin letters are given by Simkin (2009).

The barred D was used on every inscription of this Issue; this was clearly a conscious decision as the earlier Cani Dvro coinage was always inscribed with an un-barred D. The Ð also occurs on the North Thames coinage of Aððedomarus with the ð's sometimes replaced by theta and on the coinage of Anteð Rigov of the Dobunni. Whilst the Ð appears in inscriptions from continental Europe, I have been unable to find any examples on Gallic coinage, and none are listed in Colbert de Beaulieu and Fischer (1998).

III.26 Anted, Ecen and Ece Staters (I.33)

As Anted and Ecen Staters were produced in a die-linked sequence, and my separation of the Ece Stater into a separate type is somewhat speculative, all three are considered in this section.

Figure III.42. Anted and Ecen Staters from dies A:2 and A:3

Despite the present rarity of these Staters there were at least seven dies used in their production and four plated examples have been found, the Esty formula suggesting that there may have originally been a further two reverse dies. As shown in Table III.35 most known examples are struck from the same obverse die.

Inscription	No.	Obverse dies	Reverse dies	Average weight	CPD
Anted	17	1	2	5.36	11.3
Ecen	4		1	5.32	4
Sub-total	21	1	3		10.5
Ece	3	1	2	5.35	2
Total	24	2	5		6.9
Plated	4	2/3	3	3 Ant, 1 Ecen	

Table III.35. Anted, Ecen and Ece Staters

The obverse is composed of three back-to-back crescents with a central pellet, small annulets between them on die A or pellets on die B, and a pellet adjacent to the outer face of each crescent. Outside the central design are six arcs, each in the form of an open torc, with the mid-point touching a crescent tip; these torcs are made into three pairs by a linking short line at three points around the design, and elsewhere the torcs do not touch each other. On the inner side of each torc is a motif of three or four pellets. There is an outer pellet at the point where the torc ends meet, creating a fleur-de-lis pattern; this outer pellet is missing on some die B junctions.

The reverse has a right-facing horse with a pellet mane and a pellet below the tail; below the head is a reversed S. The upper forelegs are composed of a double line, with other leg elements comprising a single line. There are the following variations:

1. The design above the horse is composed of two concentric circles with 10 pellets between the two circles and a central pellet. To the right of this is a pellet-triangle and below a single pellet; behind the horse is an indication of a

more elaborate design, but all that can be seen so far is a loop. Below the horse are a single pellet and the ANTEÐI monogram. The horse has an open head with a reversed S between the head and neck, both as on the Anted Unit. Dies 1 and 2.

2. As variety 1 but the inscription reads ECEN and above the horse is the phallic design with pellet-triangles either side, in a similar position to that on BHC staters. The horse's head is as variety 1 but the S is not reversed, thus being similar to the Ecen Unit. Dies 2 and 3.
3. Generally as variety 2, but the inscription reads ECE on die 4, and is not visible on die 5. The horse's head is like the figure-of-eight headed dies of BHB Units and the S below the horse's head is reversed, as variety 1. The front legs of the horse on die 5 are raised in a similar way to that seen on many of the dies of Ece B. Dies 4 and 5.

Anted and Ecen Staters of varieties 1 and 2 are struck from the same obverse die. A careful examination of die wear and of the development of small flaws in the die indicates that the earliest known strike was of an Anted Stater (CCI 08 8506), but that an Ecen Stater was also early (CCI 98 0387) and predated some Anted Staters. My analysis of changes to this die indicated that more of the early strikes were of Anted Staters, but that minting of both types appeared to have been conducted in parallel.

The only metal test shows a decline in bullion content from earlier types (4.4.1).

III.27 Anted Unit (I.34–6)

Figure III.43. Anted Unit from dies A:1

As shown in Table III.36 Anted Units are found in seven die-groups, some of which have differing distributions (3.4.7).

Die-group	No.	Obverse dies	Reverse dies	Pellets over Ð	CPD	Hoard CPRD
1	588	11	26	All varieties	31.8	9.9
2	109	1	2	None	72.7	26.5
3	90	1	5	None	30.0	10.0
4	67	1	2	None	44.7	16.0
5	32	1	2	Horizontal	21.3	8.0
6	208	9	3	Diagonal	34.7	32.3
7	39	3	5	Diagonal	9.7	3.8
Poor	32					
Sub T	1164	27	45			
Plated	46	26	32			
Total	1210					

Table III.36. Die-groups of the Anted Units

The obverse has two back-to-back crescents within two parallel horizontal lines which also enclose single pellets above and below the junction of the two crescents. The horizontal lines end at the tips of each crescent, from each of which sweeps a line which meets the matching line from the reciprocal tip; each of these lines end in a swept back elongated pellet. The junction of each parallel line and crescent tip is also marked by two teardrop-shaped pellets at right-angles to each other. From the centre of each parallel line emerge three vertical lines of pellets separated by two solid lines. The pellets of the central line are each more elongated than the others, and usually slope-down to the left. A solid line can usually be seen behind these central pellets and occasionally a similar line is seen behind the outer lines of pellets (see die A). These probably relate to the marking-out of the die. The size, spacing and direction of these three lines of pellets are important in die identification.

The reverse has a right-facing horse, with an open head and two short curved lines for ears. The horse's mane is comprised of two rows of elongated pellets, which form four

or five pairs in a shallow V as they rise up the neck; there is occasionally an extra pellet in the outer row. Each of the four legs is composed of a single line, and on the shoulder is a small pellet-triangle; this probably occurs on all dies, but is only visible on early strikes. The bottom half of the foremost rear leg forms an element of the ligature making up the first three letters of the inscription. Above the T of the inscription is a pellet-triangle which, on three of the earliest die-group 1 dies, and all dies from die-groups 2 to 4, is the only additional device below the horse. Four other early die-group 1 dies, and both die-group 5 dies, have a neat row of three small pellets parallel to the top of the T. The remaining reverse dies of die-group 1 have these three pellets angled to a greater or lesser degree down the rear foreleg. The three pellets are not immediately obvious on dies 21 and 22, but traces can be seen on close examination. In die-group 1 the introduction of these pellets and their angle represent chronological change.

Below the head of the horse is a reversed S, and above the horse is a rosette composed of varying numbers of small pellets. In die-group 1, the number of pellets in the rosette appears to have an inverse relationship to chronology, the earlier dies having 8, 9 or more pellets whereas the later dies have 6 or 7. The rosettes in die-group 2 have 10 and 11 pellets and those in die-group 3 range from 8 to 11 pellets. To the right and left of the rosette is a pellet-triangle; the triangle to the left is made up of small circular pellets while that to the right, elongated pellets. Above the rosette on at least three dies is a comma-shaped pellet (dies 12, 30 and 42); this area is rarely seen the comma-shape appears absent on dies 27 and 31. A similar comma-shaped pellet is seen before the front foreleg on early group 1 dies, and slightly further out on die 30. There are two pellets below the tail. The outer pellet above the rosette and the elongated pellet to the right of the front foreleg are also features of a few BHC Unit variety 2 dies.

Coins from die-group 2 are very common in the late hoards (Table 6.20), despite the dies having a design which is similar to the earliest Units of die-group 1. There are two

reverses in this group and a single obverse die which was used until it was extremely worn, as shown in Figure III.44.

Figure III.44. Example of Anted die-group 2 struck from worn M:27 dies

The style of the reverse suggests that this small die-group started production at the same time as the earliest Anted production in die-group 1, but it seems likely to have continued in production using the same obverse die and only two reverses for the entire period of Anted production, thus explaining its strong presence in the late hoards.

The three coins struck from five dies (DA, EA, 46, 47 and 48) appear unusual and have been assumed to be plated, although no evidence of plating can be seen. There are minor oddities in the obverses and the reverses are also unusual, the inscription on die 47 being limited to a T and the horse having clawed-feet.

The long sequence of dies in die-group 1 reveals that reverses without extra pellets over the Đ are the earliest, followed by those with three horizontal pellets, and finally those with three diagonal pellets. This may give a clue as to the timing of the commencement of production of the other die-groups, each of which is exclusively composed of one of the three options for pellets over the Đ. Thus die-groups 2 to 4 may be the earliest and 6 and 7 the latest. The final column in Table III.36 shows the number of coins in the late hoards per reverse die for each die-group; those with the highest numbers should be the latest. Both methods indicate that die-group 6 is one of the latest die-groups and probably postdates the end of die-group 1. The two methodologies give conflicting results for die-group 2, which are discussed above; it appears likely that this die-group was produced in parallel with die-group 1, but continued after that die-group ended.

The many plated dies include an interesting group of five dies (F22–4 and R28–9) which appear to be by the same hand. Obverse die F22 has a head which is a retrograde version of that on LFH. The reverses in this group clearly copy Anted Units and this mixing of types is evidence of the contemporaneity of LFH and Anted (I.36).

III.28 Anted Half Unit (I.33)

Figure III.45. Anted Half Unit from dies A:1

As shown in Table III.37 there are two die-groups, these having no discernible differences in style or distribution.

Die-group	No.	Obverse dies	Reverse dies	Weight	CPD
1	14	2	2	0.35–0.48	7
2	13	1	4	0.35–0.48	5.2
Total	27	3	6		
Plated	10	5	6		

Table III.37. Analysis of Anted Half Units

The obverse comprises two back-to-back crescents, above and below which are two small rings; behind each crescent is a single pellet. This central design is contained within an upturned square. The outer points of each crescent touch the sides of the square. The square is drawn with dotted lines, except that on two of the three obverse dies the left and right corners, which form triangles with the tips of the crescent, are solid. There is a pellet at each crescent end, outside the upturned square.

The reverse is a right-facing horse with single line legs and a pellet mane. The head is composed of a broad curved-line between two pellets with two curved-lines for ears. It is similar to that of the BHC Half Unit. A curve of four pellets joins the breast to the mouth, possibly signifying reins or a bridle. Above the horse is an elongated V, with a pellet either side, the V looking somewhat like a pair of antlers. Below the horse is the ANTEÐ monogram with a pellet above the T. The E is only present on die 1.

Findspots are centred on Saham Toney, with a scattering in North Norfolk and Breckland (Figure III.46).

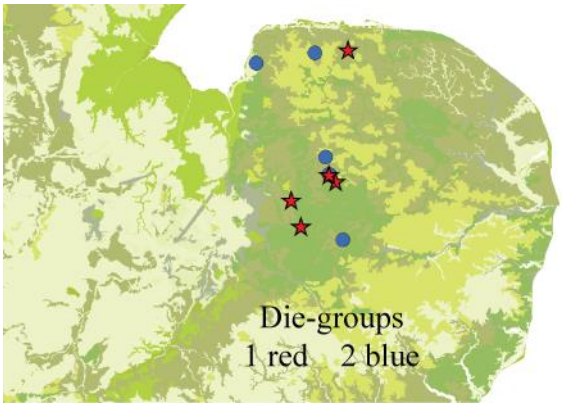


Figure III.46. Distribution of Anted Half Unit

III.29 The Ecen Issue - inscriptions

The coinage is generally inscribed ECEN which is seen particularly clearly on early Unit dies, such as 1 and 14, and on die 3 of the Stater. The down-stroke of the initial letter E is formed from the lower part of the horse's foremost rear leg. Dies are also found inscribed EDN and ED. The die-study has shown that the dies inscribed Ecen are die-linked in die-group 1 to later dies inscribed Edn, and also that Ed appears to be a variant of Edn in die-group 2.

The dies bearing the EDN inscription are more coarsely cut than those bearing Ecen and it appears likely that EDN originates from a blundered ECEN, rather than from

an intention to provide a new inscription. Some dies which are possible precursors to EDN are shown in Figure III.47.

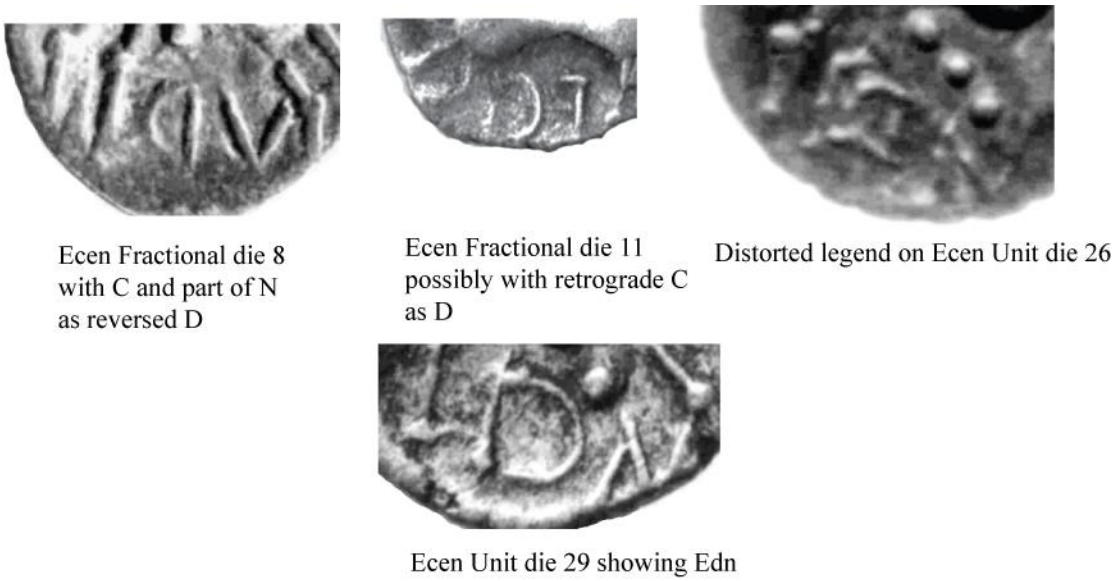


Figure III.47. Possible precursors to Edn

The first Half Unit die is inscribed ECE but on die 2 this was expanded to ECEV.

Figure III.48. Ecev inscription on Ecen Half Unit die 2

Where the area is visible, the expanded inscription can be seen on the subsequent dies of die-group 1. I suspect that the final V is either a retrograde or blundered copy of an N, or a poor attempt at a ligated EN, but there remains a possibility that the ECEV inscription is deliberate.

III.30 Ecen Stater (I.33)

The seven recorded Ecen and Ece Staters are struck from five dies and are discussed above with the Anted Staters (III.26).

III.31 Ecen and Symbol Unit (I.37–9)

Figure III.49. Ecen Unit from dies H:14 (left) and Symbol Unit from die 45 (right)

The Ecen Units comprise five die-groups, including two which are solely Symbol Units (Table III.38).

Die-Group	No.	Obverse dies	Reverse dies	Hoard percentage	CPD	CPRD
1	1020	17	31	84	42.5	32.9
2	190	3	6	85	42.2	31.7
3	216	3	4	79	61.7	54.0
Symbol 4	121	1	5	86	40.3	24.2
Symbol 5	5	1	2	100		
Other	26					
Sub-total	1578	25	48	84	43.2	32.9
Pairs	9	6	7			
Plated	29	12	18			
	1616	43	73			

Table III.38. Ecen and Symbol Units

The Ecen obverse design is as described for the Anted Unit, except that in the later dies of die-group 1 and all dies of die-groups 2, 3 and 4, the central of the three vertical lines of pellets becomes a line crossed by short diagonal hatching, and the outer rows of pellets disappear. These dies are generally cruder than earlier dies of die-group 1, and the

inner sweep of the crescents becomes a straight line, or much less curved, turning the crescent into almost a semi-circle. Examples of the coarser imagery from late die-group 1 and die-group 3 are shown in Figure III.50.

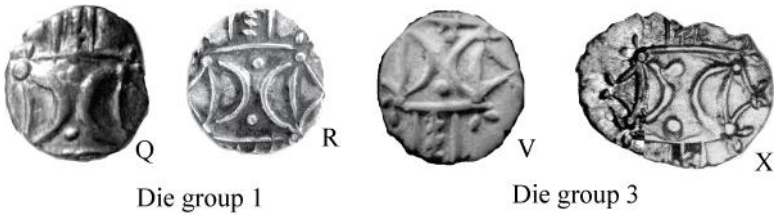


Figure III.50. The similarity between late die-group 1 dies and those of die-group 3

The stylistic similarity between the final dies from group 1, and those of three of the other die-groups, implies that the latter may have been in production at the end of or after die-group 1.

The Ecen reverse is also similar to that of the Anted Unit, but below the horse is a line of three pellets usually angled down from left to right; below this is the inscription ECEN, EDN, or possibly, on die-group 2 and 3 dies, just ED, although no examples exist showing the whole of the area where the inscription may continue. The large die-group 1 forms a definitive chronological sequence, which shows dies becoming cruder with time and the inscription changing from ECEN to EDN. Below the head is an elongated S, this being less letter-like than that occurring on Ece B. Above the horse is a rosette; die 1 of die-group 1 has an outer ring of nine pellets, and subsequent dies have seven, probably reducing to six in the final dies of the group. Dies in die-groups 2 and 3 are cruder, and no examples clearly show the number of pellets in the rosette.

There are only two known Symbol obverses, dies Y and Z: die Y was used on most recorded coins and is similar to the late Ecen dies of die-group 1, and those of die-groups 2 and 3; die Z is earlier in style.

The Symbol reverse dies are similar to the Ecen Units, but five of the six dies have only a single row of pellets for the horse's mane, and all dies appear to have a six pellet

rosette. Below the horse is a line of three pellets as on Ecen Units, but no inscription, its place being taken by a three-rayed star or a triangle. Die 39, the final die of Ecen die-group 3, appears to also have a triangle-like symbol below the horse and may be related to the symbol dies.

The weights of the coins within different die-groups are reasonably consistent and an analysis of die-group 1 coins from the late hoards suggests a target weight of approximately 1.24g (4.3.4).

The Symbol Units of die-group 5 are stylistically early and probably predate die-group 4. The three dies are rare and are only known from the late hoards. The nine coins in Table III.38 marked ‘pairs’ are unusual in style and are likely to be plated.

III.32 Ecen Half Units (1.40)

Figure III.51. Ecen Half Unit from dies A:1

The 30 dies identified to date result in this being a much more substantial type than the Anted Half Unit, which has only nine known dies, yet there are fewer plated dies than for Anted (eight compared to 11). The official dies fall into three die-groups, as shown in Table III.39.

Die-group	No.	Obverse dies	Reverse dies	CPD
1	39	1	8	8.7
2	38	1	4	15.2
3	46	3	7	9.2
Unlinked	3	3	3	
Poor	5			
Sub-total	131	8	22	
Plated	8	4	4	
Total	139			

Table III.39. Ecen Half Units

There are two varieties of obverse die:

1. As described for Anted, but the single rings, above and below the back-to-back crescents, are each replaced by a pellet, and there is no pellet behind each crescent.
2. As variety 1, except that the solid lines forming a triangle with the crescent tips are omitted, and there is a pellet-triangle behind each crescent, and at each crescent end. Only dies D and E are of this type, both are only struck with the symbol reverse of die-group 3.

Reverse die 1 differs from an Anted Half Unit in its inscription, the line of pellets from breast to mouth being replaced by a solid line, the insertion of a pellet below the horse's head and by the pellet either side of the device above the horse being replaced by two pellet-triangles. The inscriptions in die-group 1 start with ECE but then change, where visible, to ECEV. The four reverse dies in die-group 2 are inconsistent; the first two (dies 9 and 10) are like the later dies from group 1, but probably inscribed ECE. Die 11 is similar to die 1, but retrograde, and inscribed ECE. The final die 12 is shown in Figure III.52. It is stylistically closer to the Antedi SIA reverse dies than to other Ecen Half Units; its inscription is unclear, but it probably has EN before the horse and a C (or S) below it, implying that the full inscription is probably ECEN.

Figure III.52. Inscription on die 12

The first six reverse dies in group 3 are coarse in execution and very similar to the later dies of die-group 1, but the pellet below the horse is always low and no inscription is clearly visible on any of the known coins (although a strike from die 14 appears to show the top of a letter, which may be C). The obverse die used with these reverses (die C) is the crudest of the type 1 obverses. The early dies of die-group 3 die-link to die 19; this has a symbol reverse with a three-rayed star below the horse and no inscription. The symbol is identical to that on Symbol Unit dies 42 and 45. Most recorded strikes of the symbol die 19 are linked to the second form of obverse die, described above.

Mint B

III.33 EPH(A) Stater (I.41–2)

Figure III.53. EPH(A) Stater

On completion of the die-study there were only two known examples of this Stater, both struck from the same dies and weighing 4.93g and 5.12g. There were also four plated examples, all from different dies, which implied that the Stater was originally of some importance. Since the closure of the database the number of known examples has increased to four, including one from two previously unrecorded dies, one of which weighs 5.15g. All recorded weights are very low for an Icenian Stater.

The central feature of the obverse of the Stater is two back-to-back crescents, each containing ray-like lines. A crucifix design is formed by parallel pellet lines extending out from the tip of each crescent, with a central solid line either side; this is echoed by a similar design above and below the crescents, but in this case starting with a single-line crescent, within which is a ring and pellet. In the four corners of the cross are additional devices consisting of arcs in two diagonally opposite corners, and V-like devices in the other two; in the outer region of each corner there is a ring and pellet.

The reverse has a right-facing horse with a Y-shaped head. There is a shallow crescent below the head and a ring surmounted by a large leaf-form over the horse. The leaf contains a central line and two lines of pellets. Below the horse is a large ring, internally quartered with a pellet in each quarter, a device not usually seen on Icenian coinage. The design of the Stater has some similarities to the Biga type of Cunobelin (3.5.1).

No metal analysis has been undertaken but the Stater appears to be debased and has a colour similar to a modern £1 coin.

III.34 EPH(A) Unit (I.41–2)

Figure III.54. EPH(A) Unit from dies N:21

There are 133 known coins, from which I have identified 89 dies. Many Unit dies are known from only a single example, and the largest die-chain only accounts for 27 coins and 16 of the dies. Examples are often found in poor condition and obverse dies are often impossible to identify. Recoveries per die are very low and the organisation of the type has not been resolved.

The obverse is similar to the Stater, but with two centrally-placed pellets. A cruciform design is formed by three parallel pellet-lines extending out from each of the four crescents. The corners of the cross contain rings in two diagonally opposing corners, and Y or V devices in the remaining two. Each also contains two solid lines at right-angles forming an inner border. Usually the rings are situated in the upper right and lower left corners; the few exceptions seem not to be significant.

The reverse has a right-facing Y headed horse with single-line legs and a pellet-mane. Below the horse is a ring and pellet usually with seven outer radiating dashes, the number appearing to have been important as it was sometimes achieved despite causing considerable irregularity in lay-out, such as on die 52. Above the horse is a pellet-triangle over which is a large leaf design, as on the Stater. Below the horse's head is a pellet with line sweeping out to make a crescent. The horse has a single-line tail with usually a single pellet below it; behind the top of the tail is another pellet-triangle. The breast of the horse bears two elongated pellets at almost right-angles to each other, which are frequently not visible.

The dies used follow a standard design but are executed with differing degrees of competence. Some of the very crudely-cut dies are die-linked to each other, such as the sequence G, H, 10 and 11, but others are linked to finely-cut dies, such as die 2 to A, 1 and 3. It is unclear whether coarseness of die production is linked to chronology and whether differing styles of die cutting will eventually coalesce into individual die-groups, as is the case with LFH also of Mint B.

III.35 EPH (A) Half Unit (I.42)

Figure III.55. EPH(A) Half Unit from dies F:7

There are twelve known coins struck from seventeen different dies, with only a single die-link. From this small sample, it is impossible to establish how minting was organised. The extremely low recovery levels result in a Esty forecast that total die numbers may have originally been as high as 52.

The obverse design consists of two back-to-back single line crescents, and from the back of each crescent emerge three parallel lines; the outer two are pelleted and start at the tips of the crescents, and the inner is a solid line with a pellet at either end. Above and below the meeting of the crescents is a ring with a central cross; a single line leads outwards from each ring forming the overall cruciform pattern. In the top right and bottom left corners is a ring and in the remaining two corners a Y device, with a pellet at each tip. There is a pelleted outer border.

The reverse has a right-facing horse, broadly similar to that of the Unit, except that the head appears to be simplified into a single line, and there is a five-pellet rosette on the

breast of the horse rather than the two elongated pellets of the Unit. Below the horse is a rosette of five elongated pellets with a central pellet, and above the horse is a ring with either a central cross or a pellet, either side of the ring may be a pellet-triangle although this has not been seen in full. There is no upper leaf design.

There is no metal analysis and no known plated examples.

III.36 LFH Unit (I.43–8)

Figure III.56. LFH Units from dies A:1 and TB:86

This is the largest Icenian type in terms of number of dies used. The die-study has revealed that it is divided into twenty three die-groups of varying size. Most are made up of dies with common features, often giving the appearance of having been cut by the same hand. As shown in red in Table III.40, I have divided the die-groups into three 'subsets' on stylistic grounds. Subset 1 includes most of the moustache-less obverses which correspond to Allen's Normal Face Horse A (see 3.5). Within each subset I have attempted to arrange the die-groups in a chronological sequence, thus in subset 2, die-group 10 is the earliest and 18 the last. The ordering takes into account both stylistic change and the statistical analysis of the late hoards, which is shown in the last two columns of the table. The basis of my allocation of die-groups to sub-sets is explained after the descriptions below.

Die-group	No.	Obverse dies	Reverse dies	CPD	Hoard CPD	Hoard CPRD
1	28	2	1	18.7	6.7	10.0
2	18	1	3	9.0	3.5	3.5
3	37	3	7	7.4	2.8	2.8
4	22	1	1	22.0	8.0	8.0
5	109	7	9	13.6	5.0	8.0
6	38	2	2	19.0	10.0	10.0
7	25	3	2	10.0	4.8	6.0
8	14	1	5	4.7	2.0	1.5
9	3	1	2	2.0	2.0	1.5
Subset1	294	21	32	11.1	4.5	5.0
10	10	2	1	6.7	2.0	3.0
11	76	10	7	8.9	3.4	5.8
12	42	4	3	12.0	4.9	5.7
13	61	6	6	10.2	3.2	3.8
14	38	1	2	25.3	10.0	7.5
15	13	1	1	13.0	6.0	6.0
16	84	4	11	11.2	5.6	4.2
17	33	2	2	16.5	9.0	9.0
18	2	1	2	1.3	0.3	1.0
Subset 2	359	31	35	10.9	4.0	4.9
19	441	16	16	27.6	10.8	12.3
20	83	3	5	20.7	7.3	9.7
21	84	7	6	12.9	5.5	6.0
22	57	4	4	14.2	5.5	5.5
23	16	1	1	16.0	6.0	6.0
Subset 3	681	31	32	21.6	6.7	8.4
Poor	39					
Official	1373	83	99			
Plated	28	13	16			
Pairs	14	13	14			

Table III.40. LFH die-groups

The obverse bears a right-facing head, the face of which is stylised and drawn in profile, usually with a raised outer line and generally little interior detail, except for a simple eye and, in the solid line delineating the rear edge of the face, a vestigial ear. In all dies the drawing of the head goes no lower than the chin, or shortly below it, with the bottom of the head being defined by a lower line which rises from the chin before falling

towards the rear of the head. This design of the head appears quite deliberate and is unlike other types, which usually have either a neck or a simplified shoulder. The design gives the impression of being a deliberate attempt to illustrate a mask or a decapitated head.

Each head has the following features:

- A triple-line device before the nose and the mouth.
- Hair represented by a series of oval strokes around the back of the head and generally lying against the head in a naturalistic way; in die-groups A, B and an early die of die-group C, the strokes are reversed and have a spiked appearance.
- An upward pointing branch behind the lower part of the head, above which a series of pellet-ended pointed strokes radiate, pellet outwards, from the head.
- A circle of radiating strokes marking the edge of the design.

Other elements result in three different varieties of obverse:

a) No moustache and the facial design in greater relief, in many of these dies there being no defined outer line to the face. On several dies the face forms a distinctive crescent shape (see for example dies F and H). Die E has a pellet-triangle before the chin.

b) A moustache composed of a single line, and a pellet-triangle below the head. In this variety there is always a defined outer line to the face and little internal relief. The lower triple-line device is usually pointing up to the nose in contrast to variety ‘a’, where it is usually pointed to the mouth. There is a distinctive subgroup of variety ‘b’ dies which have a concave nose and pellet-ended diverging lips (see die-groups Q, R and S), these dies having the lower triple-line device pointing to the mouth as in variety ‘a’.

c) As variety ‘a’ but with a defined outer line to the face and a crescent shaped line below the eye (die-group 21, dies EC, KC and JC).

Derek Allen, and several subsequent writers, considered the head to be derived from that of Juno Sospita on a Roman Republican Denarius of 64 BC (Crawford 412-1). Juno Sospita was a goddess worshipped at Lanuvium, south-east of Rome, and was depicted wearing a goatskin cloak and a head-dress with goat horns. Allen and others have interpreted the hair of the LFH head as a representation of animal skin; on certain issues of the Denarius a branch is seen behind the head which is similar to that on the Icenian coin. However, there are no horns on LFH and the Republican head includes a full neck, and I suspect that any stylistic links between this Roman Republican Denarius and the LFH obverse are coincidental.

The reverse has a right-facing Y headed horse with a pellet-mane; the four legs are composed of single lines and there are two diverging lines on the shoulder, which are usually effectively a continuation of the front legs. There is usually a pellet below the tail. Below the horse is a pellet-ended lozenge-shaped box, to the left of which is a small device, possibly some form of mint or privy mark. In many cases the style of mark is similar for all dies belonging to a particular die-group, such as the grape-like pellets on the three reverse dies in die-group 12.

Above the horse is a complex crescent-shape composed of a lower pelleted arc and two smaller linked upper arcs; within the crescent is a triangle pointing at the horse and touching the crescent at each point. The sides of the triangle are usually composed of solid arcs but sometimes straight lines. There are few variations in the reverse dies other than the form of the ‘mintmark’, but the dies in die-groups 1 and 2 have solid-lined rather than pelleted upper arcs, and the dies in both die-groups 1 to 3 have manes composed of horizontal lines bounded by an outer line. Another variation is in the device above the tail, which can be either absent, a pellet-triangle, a single pellet, or the more complex design on dies 5, 7 and probably 12, which may be a triangle similar to that in the crescent above the horse.

Previous attempts to organise the LFH coinage have usually followed Allen (1970: 9) in separating the coinage into sub-types based upon the presence or otherwise of a moustache on the face of the obverse. Those without were classified as Normal Face Horse A, and those with as either Normal Face Horse B or C. The latter two sub-types were separated by the style of drawing the lips and the presence or otherwise of a pellet-triangle below the head. The die-study has revealed that the presence, or not, of a moustache is indeed significant, although within die-group 21 both types are die-linked, the moustache-less obverses in this die-group being of variety c, with a crescent-shaped line below the eye. The die-study has not found the stylistic differences between B and C identified by Allen to be meaningful.

The basis of the analysis into the three sub-sets of Table III.40 is as follows:

1. This sequence of nine die-groups is made up of dies that all have a *type a* head on the obverse. I believe that it includes some of earliest die-groups, 1–3, and some of the latest, 8 and 9, where the only known coins with a provenance are from the Boudiccan revolt hoards. The ordering takes into account the proportion of known coins which are not from the late hoards and reveals a steady progression of style of head and horse. Most of the reverse dies within the sub-set have a similar form of mintmark below the horse.
2. This is a not wholly satisfactory sequence of die-groups, which appear to have been issued over an extended period. Within the dies of the sub-set the work of individual die cutters can be identified on both obverse and reverse dies. The style of horse is distinctive and generally larger and more overstated than those of the other sub-sets. The heads are of *type b* and gradually become more stylised, as seen on the dies used in die-groups 16 and 18. The mintmarks are often similar, as can be seen in the reverse dies of die-group 12, dies 46 and 48 of die-group 13, and on the two dies of die-group 14.

3. This sub-set starts with die-group 19, which contains 31 dies with numerous links in the middle of the sequence, suggesting a period of intense minting which later became more ordered. Many of the dies are clearly by the same hand; many of the reverses have a similar ‘mintmark’, either displaying the stack of lines seen in various forms on dies such as 81, 83, 85 and 86, or a form of pelleted vertical line as on 74 and 76. This substantial die-group appears to have been produced relatively late as 83% of all examples with a provenance come from the late hoards.

I have assumed that this sub-set continues with die-group 20. The reverses from die-group 20 onwards generally bear a small angled ‘mintmark’, which appears to develop from die 84 of die-group 19, and can be clearly seen on dies 88 and 91. Die-group 21 contains a die-linked mix of *type b* and *type c* obverses. The final die-groups of this sub-set appear to be extremely late with all provenanced coins of die-group 23 being from the late hoards, as are all but one from group 22.

The statistical analysis of the various die-groups and subsets suggests that the subsets were issued in parallel; it is also likely that some of the die-groups within a subset were also produced in parallel. However the distribution analysis for the three subsets does not reveal any significant differences between them. Analysis at die-group level has provided some indications that die-groups had differing sub-regional focus of distribution, but sample sizes are low and the results are not definitive.

The analysis of this coinage is difficult to interpret, as for many die-groups there are few non-hoard coins, which is usually an indication of a very late issue, but the CPD and CPRD numbers are often low which indicates the opposite. At least a partial explanation is the large number of die-groups and the lower than normal ratio of reverse dies to obverse dies. I suspect that the smaller die-groups include the output of small sites producing low volumes of sub-regional production.

Sixteen pairs of dies are each known from only a single coin and do not die-link to other coins. Several have unusual features, such as the retrograde horse on die 111 and the dog-like head on die GB. Most of the reverse dies also lack the mintmarks seen on the dies of the major die-groups. It has been assumed that these dies are plated forgeries, but they may also include a few modern forgeries (JB 71 being a strong candidate for a modern forgery).

Mint C

III.37 Saham Toney Quarter Stater (I.49)

Figure III.57. Saham Toney Quarter Stater from dies A:1 (left and centre) and die 3 (right)

As shown in Table III.41 this uncommon type was struck from a single obverse die and four reverse dies.

	No.	Obverse dies	Reverse dies
Official	8	1	4
Plated	1	1	1

Table III.41. Saham Toney Quarter Stater

The obverse is geometric, with the design consisting of a central ring containing a cross, from which radiate four cruciform short lines; either side of each line is a pellet and each line terminates in a ring and pellet. Between each of these lines, and forming a further cross, are four unusual devices which look like clubs, with the blunt wide end towards the centre and the narrow end touching the centre of a dumbbell shaped short

pellet-ended line. The design is encircled by an outer ring of pellets. It is possible to see many simplified hidden faces within the geometric design.

There are two varieties of reverse, both with a sinuous horse, which were used in parallel:

- The first is the most complex and the full design has not yet been seen. The horse's head is composed of two linked pellets and its feet terminate in curved, claw-like hooves. The mane is composed of down-curved lines and on one of the two dies there are two pellets below the horse's head. Above the horse are two open, pellet-ended, torc-like crescents; a shorter crescent connects the right 'torc' to the back of the horse. In front of the horse are various lines, two of which make up an incomplete crescent in front of the horse's mouth. Below the horse is a ring and pellet, and below this are large curved lines which may again be torcs, but which cannot yet be seen in their entirety; there is also additional pellet decoration below the horse on die 4. The tail has backward sweeping lines and below it is a pellet. This reverse is stylistically similar to die 1 of the Unit. Dies 1 and 4.
- In the second the horse has an early version of the crossed Y shaped head which later became a key feature of Mint C reverses. Above the horse is a large pellet ring containing a pellet-triangle and before the horse's foreleg is an arrangement of lines that look like a J, albeit with a curved top. Below the horse is a ring and pellet and below the tail is a pellet, the tail is probably leaf-like. The exergue on die 3 is a pelleted line whereas on die 2 it is a branch. Dies 2 and 3.

One example (MV 9) shows signs of having been struck over an unidentified earlier coin. The relevant section of the coin is shown in Figure III.58; to the right some of the more obvious elements of the earlier strike are highlighted.

Figure III.58. Saham Toney Quarter Stater struck on an unidentified coin

The only finds are from the Waveney valley and the Fincham area of west Norfolk (Figure III.59). No metal tests have been conducted.

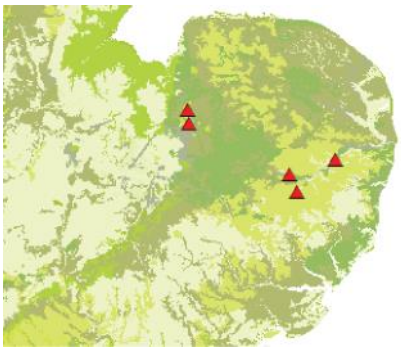


Figure III.59. Distribution Saham Toney Quarter Stater

III.38 Saham Toney Unit (I.49)

Figure III.60. From left: Saham Toney Units from dies A:1, A:3 and C:10

Most known Units are die-linked and it is likely that all dies originally formed a single sequence (Table III.42).

	No.	Obverse dies	Reverse dies	CPD
Die-group 1	66	6	14	6.6
Unlinked	4	3	3	
Total	70	9	17	
Plated	1	1	1	

Table III.42. Saham Toney Unit statistics

This Unit has three varieties of obverse which are die-linked to four varieties of reverse. The obverse varieties are:

1. A distinctive right-facing head with a pronounced eye, ornate curl below the ear and a very pointed chin. The hair is unusual, being formed of elongated pellets around the top and back of the head. There is no sign of a neck or shoulders and the lips project almost as much as the nose. Dies A, G and H.
2. A right-facing head with pellets for hair, a projecting forehead which looks like a cap, an exaggerated nose, and a clearly defined ear, eye and striated beard. In front of the forehead is a pellet-triangle and before the mouth is an indistinct pattern of pellets which, on die B, may have been re-cut to include a right-angled device. The shape of the face is very distinctive with almost a straight line from the tip of the nose to the chin. Much of the design appears to be encircled by a ring of pellets which appears to stop at the beard. Dies B, C, D and F; the unusual die J is discussed below.
3. This variety is only known from die E and appears to show a full, or three-quarter, frontal face with hair and beard in the striated form of style 2. The only known example is from a broken worn die and the interpretation of the image is difficult; it could conceivably be a distorted version of variety 2.

The four reverse varieties are:

1. A right-facing sinuous stepping horse with claw-like hooks on its rear feet; the head is similar to the Quarter Stater in being composed of two linked solid pellets. The upper design is unclear but includes three lines looking loosely like an N or an H, a pellet-triangle below the head and a curved device between the forelegs. Below the horse are a pellet-triangle, a ring and pellet, and a unique device looking like a box containing a diagonal line. There is a pellet below the tail and a zigzag exergue. Die 1.
2. The horse is right or left-facing and is very sinuous with bulbous hips, breast and upper limbs. It has a pellet mane and a unique keyhole-shaped head with a pellet for an eye. Above the horse is a kite with a central pellet, seemingly enclosed by a semi-circular single line, which arcs from the base of the tail to top of the mane. There is a ring and pellet below, before and behind the horse. Die 5 shows part of a design above the upper arc with the ring and pellets continuing into this area as well. Die 3 shows a zigzag exergue as on type 1 but this does not seem to be present on die 7; no other examples have this area visible. This style of horse is not seen on other LIA British coinages but has some similarity to continental types, such as the gold of Series 402 from the area of the Eborovices (such as Delestrée 2004: plate 16, DT 2403). Dies 2, 3, 5, 7, 8 and 9.
3. A right-facing, more typically Icenian horse, with a Y-type head crossed by an elongated pellet, and with a mane composed of a single line of elongated pellets. Above the horse is a pellet-triangle in a pellet ring bounded by a semi-circular pellet-ended line, as used in variety 2. There is a single pellet or pellet-triangle either side, or in front, of the pellet-ring, and on two dies, 10 and 11,

with an extra pellet below. A single pellet is below the head. In front of the horse's face on at least one of the dies is an oval shape, below which is a pellet-ring which contains a single pellet on at least one die. Below the horse is a ring and pellet surrounded by a pellet-ring, and there is a pellet below the tail. The breast of the horse contains two lines, presumably representing strapping. Dies 4, 6, 10, 11, 12 and 16.

4. Similar to variety 3, but the upper design is simplified, with a single pellet in the pellet-ring above the horse and with no additional detail below the torc-like arc above the pellet ring. Die 15 has a Y-shaped head but, although not fully visible, die 14 may be of the open form similar to the closely related die 17, which is discussed below. The front of the design is not visible, and below the horse on dies 14 and 15 is a ring and pellet and on die 13 a six-pointed star. The area behind the horse is only visible on die 13, and shows an almond-shaped device as seen on JA and JB Staters. Dies 13, 14 and 15.

The coin struck from dies J:17 is assumed to be a Saham Toney Unit (BMC 3552 or 96 1974). The head on the obverse has similarities to variety 2, particularly in the representation of the forehead and face, and the reverse has similarities to die 14 of variety 4.

Several Saham Toney Units show signs of having been struck onto existing coins; the list below provides the database reference for the relevant coin as well as the Icenian dies used to strike it:

1. 98 1236, D:4 clear detail from unknown earlier dies on each face.
2. J985, F:12 clear detail from unknown earlier die on edge of obverse.
3. J1429, A:4 traces of a ring and pellet on the reverse are probably from a North Thames Unit (Figure III.61).

4. J807, A:4 overstrike of Kentish unit of Dubnovellaunus (ABC 321), illustrated in Figure 3.52.
5. Other dies show signs of possible over-striking including 82.0544 (E:4), which has traces of a pellet behind the tail on the reverse.

Figure III.61. Remains of earlier die on Saham Toney Unit from dies A:4

Four Units have been analysed and found to have varying silver contents, ranging from 65% to 96%, the variation is probably related to the high incidence of over-striking onto other coinages.

III.39 Saham Toney Half Unit (I.49)

Figure III.62. Saham Toney Half Units from dies A:1 (left) and B:2 (right)

There are two unique Half Units which appear to be part of the Saham Toney Issue. The example on the left was found at Kings Lynn in west Norfolk and weighs 0.4g, and the other, from Walsingham in north Norfolk, weighs 0.43g. Both obverses are based on

triangular forms which incorporate branches and both reverses have styles of horse seen on other denominations of the Issue.

Dies A:1

The obverse design is similar to elements of the EBH spiral type of Half Unit (III.14). The central motif is a pellet-triangle; from each pellet there radiates out what appears to be a branch, with leaf-like attachments on either side. A further pellet is placed between each branch, with a line extending from the pellet to the edge of the flan, the ends of which are not visible.

The reverse has a right-facing horse, with a mane of single pellets and a sinuous body in the same style as varieties 1 and 2 of the Unit, and as used for the Quarter Stater. The die is very similar to die 1 of the Quarter Stater, and is probably by the same hand. The form of the horse's head is probably similar to die 1 of the Quarter Stater, but has curved lines emerging from the mouth, which may represent the 'fire' seen on Snettisham and other early Units. The front rear-foot has the claw-like appendage also seen on the early dies of the Quarter Stater and the Unit. Above the horse is a device that appears to comprise three pelleted-lines emerging from a central point. There is a pellet under the head and a pellet-triangle below the horse; behind the horse are three pellets, possibly part of a rosette. There is an exergue consisting of a zigzag line below a horizontal line; from the left end of the upper line a vertical line drops down and off the flan, this may create a box which encloses the zigzag.

Dies B:2

The obverse has a central ring and pellet surrounded by three outer ring and pellets each of which is connected to the adjacent one by a sweeping arc that touches the central ring and pellet, thus creating a three-armed device with similarities to die A. Between each arm is a

branch emerging from a pellet close to the centre of the design, and there appears to be an outer circle of pellets.

The reverse has a right-facing horse, with a Y shaped head crossed by a pellet. This is very close in style to other dies of the Issue, such as Unit die 10 and Quarter Stater die 3. The mane consists of slightly elongated pellets. The designs above and before the horse are indistinct, but the latter may be a pellet-triangle; below the horse are two pellets and there is a solid exergual line.

III.40 EPH(B) Stater (I.50)

Figure III.63. EPH(B) Stater

There is one known example of this Stater, which was allegedly found in the Snettisham area, weighs 5.31g and is red-gold in colouration. There is no sign of circulation wear, but the obverse die shows signs of active production as die-flaws have developed around and within the crescents, obscuring all but three of the internal rays.

The obverse has back-to-back crescents as the central motif of a cruciform pattern, with a continuous vertical line passing between the crescents and a horizontal line interrupted by the crescents. Either side of these lines are lines of angled and slightly elongated pellets, and a flag-like solid line forms a right-angled corner to each quarter of the design.

The reverse has a left-facing horse similar to the Unit, but with two lines making up the leading foreleg and a large pellet on the breast. Above the horse is a six-spoked

wheel behind which is a large crescent. There is a pellet below the tail, and below the horse is a six-rayed star with a small crescent, echoing the leading rear leg. There is a pellet between the head and neck.

III.41 EPH(B) Quarter Stater (1.50)

Figure III.64. EPH(B) Quarter Stater from dies A:2

There are only five known examples, all struck from the same obverse die, but from three different reverse dies.

The obverse die is almost identical in design to the Stater, except that the central vertical line does not pass between the central crescents: it stops at pellets above and below them. The central horizontal line either side of the crescents is also omitted and the central crescents do not have rays.

The three reverse dies are similar to the Stater with a left-facing Y-headed horse below, which is a star and, above which, a wheel. The star on each die has a different number of rays, four, five and six, and the upper wheel contains four or six spokes; on die 2 the wheel has eight outer ‘cogs’. There is a crescent in front of the leading rear-leg on two of the dies and, at least on die 2, there is a large, pelleted rosette behind the horse. As on the Unit and Half Unit, the horse stands on a single line exergue. An open, pellet-ended torc passes through the neck of the horse and crosses its nose. This is located at the point where, on later Mint C Units, there is a line crossing the Y-shaped head (see Figure III.65), and, at least on die 3, there are two pellets, adjacent to the pellet end of this ‘torc’,

forming a pellet-triangle. This torc is presumably the device that arches over the horse on the silver denominations, having similar pellet-triangles at its ends on some dies.

Figure III.65. Torc wearing horse on EPH(B) Quarter Stater

Three coins have recorded provenances: Lakenheath and Great Walsingham, in the west and north of the region, and Essendon in Hertfordshire. No metal analysis has been conducted, but the Quarter Staters appear reddish in colour similar to the Stater. The four recorded weights range from 1.03g to 1.09g.

III.42 EPH(B) Unit (I.50)

Figure III.66. EPH(B) Unit from dies E:14

Most dies fall into a single die-linked sequence, but there is a small second die-group and two unlinked pairs of dies, one of which may be a contemporary or ancient forgery (Table III.43).

Group	No.	Obverse dies	Reverse dies	CPD
1	119	9	17	9.2
2	5	1	2	
Unlinked	6	2	2	
Poor	3			
Total	133	12	21	8.1
Plated	10	5	7	

Table III.43. The EPH(B) Unit

The obverse die has two back-to-back crescents at the centre of a cruciform design. The arms of the cross are formed of branch-like lines, usually of four opposing pairs of leaves which point to the centre of the design. The horizontal arms start with a pellet and the vertical a small ring, or ring and pellet. The ends of the horizontal lines are rarely visible but on die B they end in a ring. A poor image of this area on die A (97 2212) indicates something rather more complex, ending in a pellet but with a single line heading off at right-angles just before the pellet. The vertical arms end in pellets.

In each of the corners of the cross is a pellet-triangle; on die E there are flag-like straight line borders to the corners which are parallel to the branches. Early strikes of Dies A and B have a shallowly cut symbol, possibly the letter v or y, within each corner (Figure III.67), which is absent on later strikes.

Figure III.67. ‘Letters’ in the central corners of EPH(B) die A

The reverse die has a Y headed horse facing left, similar to variety 3 reverses of the Saham Toney Unit, although facing in the opposite direction. It also differs in having two lines making up the upper part of the trailing foreleg although a precursor is present on Saham Toney die 4. On its breast, the horse has lines of three pellets and an additional pellet, rather than solid lines, presumably representing strapping. Above the horse is a six-spoked wheel encircled by a torc-like arc; adjacent to each terminal pellet of the upper torc are two further pellets creating a pellet-triangle. In front of the horse is a large crescent, below it either a ring or a ring and pellet, and below the tail a pellet. The rarely seen exergue is a single horizontal line.

The four reverse dies which are not die-linked to the main sequence, are distinctive. Reverse dies 19 and 20, which with die L form die-group 2, are the only dies with the horse's head raised and die 20 has a single pellet below the horse with no ring. Die 19 appears genuine and shows the small crescent below the horse, a feature likely to be missed on a forged die. Die 21 is coarser than normal dies and die 18 is the only reverse with a second line giving extra profile to the upper front rear leg. With the possible exception of dies M:21, it appears likely that these dies are genuine and they may represent small scale secondary production activity.

III.43 EPH(B) Half Unit (I.50)

Figure III.68. EPH(B) Half Unit from dies B:1

All identifiable official coins are from a single die-linked sequence. Esty calculations suggest that a further reverse die will be found, and the number of forged dies shown in Table III.44 indicate that this type was originally of some significance.

	No.	Obverse dies	Reverse dies	CPD
Die-group 1	12	2	4	4
Plated	3	3	3	

Table III.44. The EPH(B) Half Unit

The obverse has a central ring and pellet; a cruciform pattern is formed by two opposite lines with four pairs of pellets either side, and by the two stacks of four elongated pellets. Around each arm of the cross is a horseshoe-shaped line, each linked to the next with a terminal pellet.

The reverse is a left-facing horse, generally similar to the Unit. The horse's head has a simplified Y form and, on all dies except 3, the leading foreleg is composed of two lines rather than the one of the Unit. There is nothing below the horse except a pellet on die 3. Above the horse is a pellet-triangle surmounted on die 1 by a pellet-ended open arc. There is a single line exergue, as on the Unit.

No metal analysis has been undertaken and the few findspots are mainly central and western, with three of the nine recorded finds spots of official coins being at or near Saham Toney.

III.44 Saenv, Aesv and Ece B Units (I.51)

Figure III.69. Saenv Unit from dies A:1 (left) and Aesv Unit from dies A:3 (right)

Figure III.70. Ece B Units from dies D:9 (left) and A:2 (right)

As discussed in 3.4.3, these three types of Unit with different inscriptions are die-linked, and they are considered together in this section. The analysis of their die-groups and distribution is considered in 3.6.3 and here I give details of the inscriptions, descriptions and weight records.

Inscriptions

The three inscriptions are shown in Figure III.71; two dies are inscribed SAENV (both illustrated), one AESV and the remaining twenty two dies ECE.

Figure III.71. Inscriptions: Saenv (top left and centre), Aesv (top right) and Ece (lower)

The inscription Saenv is clear on early strikes of both dies, with the exception of the fourth letter, usually read as a retrograde N. The Y between the forelegs on die 1 (top left) is a die flaw. Nash Briggs speculates that the retrograde N may in fact be VI, making the reading SAEVIV (2011: 87). Retrograde N's do not occur in either Ecen or Anted coinages with the possible exception of the Ecen Half 'Ecev', where the final letter may

be a retrograde N, if read with the adjacent leg of the horse. The position is also complicated by a slightly weak downward line to the left of the retrograde N on die 1, which can be read as a well-formed M, thus giving SAEMV. The corresponding letter on die 2 seems to have been recut during the life of the die into a rather indistinct letter. With imagination this can be seen as an attempt to convert it to an M, the left of the letter being formed by the faint line just in front of the lower half of the E (see Figure III.72).

Figure III.72. possible re-cutting of the Saenv inscription on die 2

It is also possible that the retrograde grade N became damaged, and the re-cutting was a poor attempt to re-instate the original letter. No intermediate examples of the die are known which show damage to the N and it is also possible that the inscription may have been intended to be read as SAEMV. This possible reading has been discussed with D Nash Briggs who thinks that it is unlikely as she finds it makes no sense in any likely appropriate known language (pers. comm.).

The AESV inscription is well defined, and all readable Ece B reverse dies bear the inscription ECE.

Descriptions

The obverse dies are as described for Anted and Ecen Units, but with subtle differences in the lines sweeping down from the tips of crescents. In the types under discussion these form U-shapes, whereas on Ecen and Anted they are tick-shaped.

The reverse has a sinuous horse, with a Y shaped head identical to that on the EPH(B) Unit. Dies 1, 2 and 11 are left-facing like EPH(B) Units, but all others are right-facing. Most dies have two lines of three pellets on the shoulder, but without the seventh

pellet seen on EPH(B). About halfway through die-group 1, four dies have the shoulder pellets replaced by a trefoil of elongated pellets (Figure III.73). On most dies the mane follows earlier Mint C reverses in being composed of a line of elongated pellets, below which is a single pellet; but all die-group 2 and 3 dies, and a few others, are solely composed of elongated pellets.

Figure III.73. Ece B dies 4 (left) and 9 (right).

The horse's legs are similar to EPH(B), except that the upper forelegs are more frequently composed of two lines, and the rarely seen tail is a single line. The inscription is written below the horse, however, there is a small letter S below the head on at least nine of the first 10 dies of die-group 1, a similar device appears on the Ecen Unit. The S can be seen on die 4 in Figure III.73 above and may be an attempt to illustrate reins. It does not occur on later reverse dies of die-group 1 or in other die-groups. Some dies, such as 9 and 17, have marks which suggest that the device may have been removed from the die. Above the horse is a rosette with five to eight, but usually six, petals. Variation in the number of petals may be intentional, as the three dies in group 2 have five petals and retrograde dies have seven or eight. Whilst the horse is generally sinuous, those in die-group 3 are particularly so and these dies are also more dished than most others of the type.

Saenv die 1 and Ece B dies 17 and 22 are particularly close in execution and are sometimes hard to separate. Subtle differences of alignment make it unlikely that they are re-cut versions of the same die with re-worked lettering.

Weight

Ece B Units were produced at similar levels of accuracy and with a similar target weight to most of the other late Units (see Table III.45 and Table 4.8). Table III.45 indicates that the production of the Aesv/Saenv die-group may have been less precise, with a slightly lower target weight.

Unit Type	Die-group	% within 0.1g	Range (grams)	Total sample size	% within 0.05g	Range (grams)
Ece B	1	71	1.18–1.27	226	40	1.21–1.25
Ece B	2	71	1.18–1.27	102	45	1.22–1.26
Ece B	3	69	1.17–1.26	42	43	1.22–1.26
Saenv etc.	4	62	1.18–1.27	63	33	1.18–1.22

Table III.45. Maximum proportion of hoard Units falling within specified weight intervals

The table shows the relative accuracy achieved in minting, by giving the maximum percentage of each sample of coins which fall within weight ranges of 0.1g and 0.05g. The table also shows the actual range within which the maximum percentage fell; thus, 71% of Ece B die-group 1 Units fell within a range of 1.18g–1.27g, inclusively.

Local coinage of the denominational periods

III.45 Mildenhall Quarter Stater (I.53)

Figure III.74. Mildenhall Quarter Stater from dies A:2

There are only two examples in the database, each with a different style of reverse. Both were found at Mildenhall. A third has been found near Bungay in Suffolk since the database closed (illustrated in Figure III.74). The three known weights are 0.99g, 1.01g and 1.07g.

The obverse has two central back-to-back crescents, with a pellet immediately above and a ring and pellet below. Other detail is hard to interpret, but there may be two double-lines of pellets diverging horizontally away from each of the central crescents. In the outer field there appear to be two swagged-crescents, one of which contains a rosette.

There are two varieties of reverse. The first has a right-facing sinuous horse with a decorated outer-field, little of which can be clearly seen. The second has a left-facing horse, which is very similar to that of the Mildenhall Unit but probably without the Y-shaped head, although this is uncertain. There are crosses in the upper field (as seen on earlier Plouviez Staters) with a poorly defined zigzag line; before the horse there appears to be a cross in a ring but other detail is unclear.

The swagging on the obverse is similar to that seen on the Saham Toney Quarter Stater reverse dies 1 and 4, the horse also showing some similarities to those on the Saham Toney Issue. The back-to-back crescents probably indicate that the type dates from the mid-denominational period and the weight of the coins are similar to the BHC Quarter Stater, with which it may be contemporary.

III.46 Mildenhall Half Unit (I.53)

Figure III.75. Mildenhall Half Unit

The two examples have been found at Homersfield in the Waveney Valley on the south-east Norfolk/Suffolk border and Creake in north Norfolk, and weigh 0.81g and 1.01g. This type has been named after the Quarter Stater because of similarities in the treatment of the horse, but it is unlikely that they have a direct relationship. Stylistically this Half Unit also seems likely to date from the mid-denominational period.

There is a blank obverse and a left-facing horse on the reverse. The horse has a large ear, a mane composed of stacked elongated pellets and probably a Y shaped head. The horse is surrounded by ring and pellets, a pellet-triangle, and a pellet rosette within a pelleted border.

III.47 Cani Dvro Unit (I.32)

Figure III.76. Cani Dvro Unit from dies A :1

The single obverse die has a right-facing boar similar to the BHC Unit. On its back are eight pellet-ended hairs which all curve forward. The front of the boar is similar to BHC but the pin-like device is topped by a single pellet rather than a forward-facing loop. Most coins are struck low in the die and there seems to be no imagery above the boar. The front legs, rear legs and tail of the boar are like the BHC Unit, but the pellet below the boar is replaced by an inverted V with a small ring at the apex, surmounting two vertical pellets. The V has similarities to the antler-like upright V above the horse, on the reverse of Anted and Ecen Half Units. It may be also related to the cotter-pin-like device on the BHC Unit. There is a pellet border to the die, the upper elements of which have not yet been seen. A small device amongst the pellets of the border, immediately below the inverted V, seems

likely to be a die-flaw. Early strikes show a single pellet on the boar's body, probably representing an eye.

The reverse is a right-facing horse, with a head composed of a single, thick line. This is unlike other late Units except the Anted SIA type. It is a simplified version of the head on BHC, Anted and Ecen Half Units, which also have two small forward-sloping curved lines as ears. The horse has a mane composed of five pairs of linked pellets; the horse's body and legs are like the BHC Unit. The tail is a single line with lines illustrating hairs in the lower half, and below the tail is a single pellet. Between the horse's head and chest is a reversed S as on Anted Units, and on its chest are two elongated pellets, as on BHB and BHC.

Inscription

Below the horse on the reverse is written DVRO, with the lower front rear leg forming the down stroke of the D; above the V is a pellet on at least two of the three dies. Below the script is a horizontal line superimposed upon which is a line of elongated pellets. Above the horse is probably written CANI. The C and N are clearly shown, but the A is unusual in having the central bar angling down to the base. The I is somewhat speculative: only its lower part has been seen on die 1, but whilst it is indistinct, it appears to be an I on die 2. The appropriate area is not visible on the only known examples of die 3. Above this inscription is a line echoing that below the lower inscription.

The unusual A is not seen on other East Anglian types, but occurs occasionally on Gaulish coinage (e.g. Colbert de Beaulieu 1998: 171). The inverted V on the obverse and the reversed S below the horse's head may also be script, but I suspect that the former is related to the antlers on Anted Half Units; the latter is seen on all Anted and Ecen Units and reversed on Ecen Units.

Nash Briggs considers that Cani Dvro is most likely to be two names or titles built upon Celtic or Germanic roots, or one such name plus part of the name for an assembly place (2011: 89-90). I think it is possible that the CAN(I) element of the inscription relates to the tribal name and/or to the later Ecen inscription.

III.48 The Antedi Sia Unit and Half Unit (I.33)

Figure III.77. Anted Sia Unit (left) and Half Unit (right)

There is only one known example of each of these types: a Unit weighing 0.94g and a Half Unit of 0.51g. The Unit was found near to Mildenhall, and the Half Unit was reported as being from Fakenham, although rumour in the trade suggested it may also have been from near Mildenhall.

The Unit obverse has the letters ANTEĐIO, ANTEĐI or ANTEĐIC between two lines, all contained within a ring with an outer border of pellets. As with Anted Units, the first four letters form a ligature and the D is barred. The inscription was initially read and published as AEDIC (Chadburn 1991) but the reading of the first six letters as Antedi became clear on discovery of the Half Unit (Rudd 2004). The final letter is ambiguous and was originally thought to be either a C or not a letter at all; I suspect that the letter is intended to be an O, but this is not certain and there are no other examples of the letter O at the end of Anted or Antedi.

This tablet form of inscription is unique in Icenian coinage, although it is not uncommon in other regions. A well-defined example of Tasciovanvs from the North Thames area is illustrated in Figure III.78, and tablets also occur on the coinage of

Cunobelin (ABC 2849). Jonathan Williams points out the lack of numismatic precedents to these tablets, or cartouches, and draws attention to their visual similarity to Roman manufacturer's stamps on goods such as tableware (2007). He highlights the unusual use of the 'i' ending on a 'Cvnobalini' Biga Stater within a cartouche, seeing it as a genitive case ending signifying possession in both Latin and 'Celtic', a feature also seen in manufacturers' stamps. The same case-ending may also occur on both of these Icenian types.

Figure III.78. From left: Units of Tasciovanvs (ABC 2640) and Antedi Sia

The Unit reverse has a right-facing horse with three pellets on the shoulder, and the head appears to be a single curved line evocative of the later BHC and the Anted Half Units. Below the horse is written SIA, and there may be other letters above left. There is a decorative seagull-like device above the horse, but the only example is indistinct.

The Half Unit obverse is similar to the Unit with ANTEDI in the tablet. Above and below the tablet appear to be pellet-ended arcs and, possibly, pellet-triangles. There are two outer encircling rings, the inner pelleted and the outer solid.

The Half Unit reverse is also similar to the Unit. The horse has a pellet mane, and its head is composed of an elongated line with a pellet at the end and a smaller pellet for an eye, similar to Ale Sca. It has two forward-curved ears; the front one is branched like an antler, but this is probably a flaw. Above the horse is a small ring with two wing-like S shapes from it; these appear to be pellet-ended, and both this device and a similar device on the Unit may be a version of the antler-like design above the horse on the Anted Half

Unit. Below the horse are letters which are unclear on the only example, but which may well read SIA. There are two elongated pellets or bands on the horse's breast.

The SIA inscription may be related to the reverse inscription on Ale Sca Units. Both the form of the horse's head on the Half Unit and the weight of the Units also link these types to Ale Sca. Neither they, nor Ale Sca, are typically Icenian.

III.49 Ale Sca Unit (I.53)

Figure III.79. From left: Alife Scavo and Ali Sca from dies A:1 and E:5 respectively

This type was struck on gently-dished, medium-sized flans and is divided into two sub-types by both the legend and the obverse design. There is a discussion about the reading of the legends below, as several alternatives are possible dependent upon whether the legs of the animals serve as letters.

The Alife Scavo ('Scavo') sub-type comprises four linked dies and was first seen in 2002 subsequently becoming relatively numerous. Many of these coins probably come from a single hoard, as most are in remarkably good condition and appear to show the same, slightly pitted, patina. The Scavo coins from dies A:1 have fixed die alignments; I have not encountered this elsewhere in the Icenian coinage, although I have not carried out a comprehensive search for other examples. This caused me to be sceptical about the sub-type's authenticity. This concern was somewhat allayed when the corroded surface of a Unit was examined by a sculptor experienced in the patination of metal. He considered the surface corrosion to be of a consistency that would be almost impossible to replicate on a modern forgery (Tom Lomax pers. comm.). I also arranged for a metal test to be

conducted and the Scavo Unit was found to be 92% silver with traces of gold and lead; Peter Northover concluded that the metal used in making the coin was an ancient alloy (pers. comm.).

The Ale Sca ('Sca') sub-type was first found many years ago, and is known from five un-linked pairs of dies and the core of a plated Unit. It is possible that the Scavo and Sca sub-types represent a single sequence, with the Scavo coins being the earliest as the second Scavo obverse die (B) has an inscription which is closest to the Sca sub-type.

There is a general description of the 'Sca' group of Units below, followed by the specific features of the Scavo die-group, a discussion about inscriptions and finally some weight statistics.

The obverse has a right-facing boar, executed in a style unique in Icenian coinage. The animal has an unusual figure-of-eight-shaped, realistic head formed around two pellets; pellets along the back signify hairs and there is a single line tail. The four legs are shown by single lines with additional profile in the thigh, and the jointed legs are shown in an outstretched running position. Above the boar is a pellet-ended crescent, or torc, containing a pellet, either side of which is a ring and pellet. A pellet above the boar's head may represent an ear. There is an inscription below the boar and no outer border to the die. The design above the boar is not typically Icenian and is discussed in 5.8.

The reverse is a right-facing horse with a head and posture similar to that of the boar. The horse has a pellet-mane and a single-line tail. Above the horse is a ring and pellet, around which are four pellets forming a cross. Below the horse is the inscription SCA. There appears to be an outer border of pellets on the die.

The Scavo die-group is represented by two obverse and reverse dies. The obverse dies have a ring and pellet above the boar, with an open torc or pellet-ended crescent either side. This is the opposite way round to the Sca obverses. Die A is very distinctive, with the boar having a strange appearance: it is thick necked and in an unusual posture,

looking somewhat hyena-like. The hairs on the animals back are represented by 15 strokes rather than the seven to nine pellets of the Sca dies; the tail of the boar is composed of a unique two-line arrangement. The more complex inscription on die A is discussed below. Die B is known from a single coin and is closer to the Sca obverses, except that the boar is larger with more hairs on its back, which are drawn with lines rather than pellets.

The two reverses of the Scavo die-group are similar to the Sca reverses, but have a somewhat larger horse. Die 1 has a more complex inscription and the full inscription on die 2 is as yet unseen.

Inscriptions

Scavo obverse die A bears the most complex legend of the type; different strikes are shown in Figure III.80.

Figure III.80. Scavo obverse die A

The inscription appears to be AL FE, but one or both of the upper-forelegs may also function as I's, in which case the inscription could read ALIFE or ALIIFE. Whilst this is possible, I think it unlikely, as the legs are not well-aligned with the letters. It is tempting to read the F as an E missing its lower pellet, in which case the inscription could be much closer to the other dies, which are discussed below. This seems unlikely, as the proportions of the limbs of the E would not be evenly spaced if there were to be a lower limb. It appears from the example on the right of Figure III.80 that the letter A was re-cut with a lower bar; this may be a die flaw. The only example of die B (die-linked to A via die 2) is in Figure III.81.

Figure III.81. Ali legend on die B

There may be lettering to the right of the boars legs on die B, but the layout is similar to that of the Sca dies which have no additional lettering, as illustrated in Figure III.82.

Figure III.82. Ale Sca obverse inscriptions, dies C to G (clockwise from upper-left)

The Sca die C reads ALI as on die B; the remaining dies are all inscribed ALE, with the final letter composed of a single line, with three vertical pellets. This form of E is seen on Gallic coinage (Colbert de Beaulieu 1998: 81). On die G, the three vertical dots appear to form a line, probably due to die wear. The ordering of the above dies is conjectural, as there are no die-links.

The forelegs on dies D and F could represent the letters FF, this being a realistic possibility in view of the EF inscription on the Scavo obverse of die A. Three of the inscriptions have the letter L composed of a single line and a pellet, a form also seen on Gallic coinage (Colbert de Beaulieu 1998: 324).

The complex inscription on the reverse of the two Scavo dies is illustrated in Figure III.83. On die 1, the inscription reads SCAVO, with the C being above the line of

the other letters as if originally omitted from the die and later corrected. On die 2 it is aligned with the other letters. The final O has not yet been seen on a strike from die 2, despite a post-close example including the edge of where it would be expected to appear; thus it may be absent.

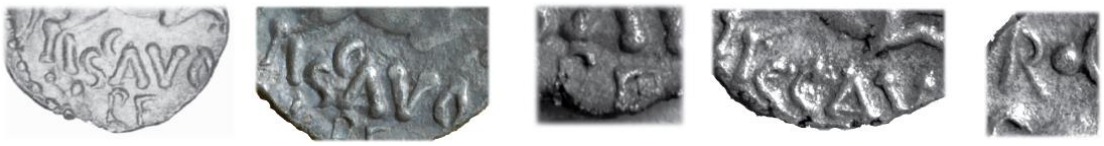


Figure III.83. From left: three inscriptions from die 1 and one from die 2

On die 1 only, below SCAVO, there appear to be two further letters which may read PF. These are shown on the left of Figure III.83. On die 2 there is an additional letter, R, to the upper left of the horse, illustrated on the extreme right of Figure III.83. A further complication is that it is possible to read the lower half of the foremost rear leg as part of the inscription on both dies 1 and 2,. In such a case the inscription can be read as ISCAVO PF(PR?) or R ISCAV(O).

All of the remaining reverse dies are inscribed SCA, as illustrated in Figure III.84. This is presumably an abbreviated version of the inscription seen on the first two dies.

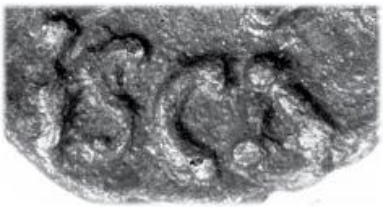


Figure III.84. Sca sub-type reverse inscription

As discussed above, there are several possible readings of the legends on these Units dependent upon whether the legs of the boar are treated as letters. These are listed in Table III.46, with more unlikely readings shown in brackets.

Dies	Obverse	Reverse
A:1	ALFE, ALIIFE, ALIFE	SCAVO, SCAVO PF, SCAVO PR
A:1cont'd	As above	ISCAVO, ISCAVO PF, ISCAVO PR
A:2	As above	R ISCAV, R SCAV, R ISCAVO, R ISCAV
B:2	ALI	As above
Sca group	ALE, ALI (FALE, IFALE)	SCA (ISCA, IISCA)

Table III.46. Possible legends

Weights range to a maximum of 1.15g; one record at 1.79g is noted as including corrosion (Allen: 1970). The target weight appears lower than the most Units except Esv Prasto (Table III.47).

Grams	Sca	Scavo
1.15	0	
1.14–1.10		0
1.09–1.05	0	
1.04–1.00		000
0.99–0.95		00
0.94–0.90	00	0000
Below 0.90	0000	

Table III.47. Weight records

III.50 Esv Prasto Unit (I.53)

Figure III.85. Esv Prasto Unit from dies A:2

The Esv Prasto Unit has a modest-sized flan with little dishing, and the main design elements are deeply cut. No metal analysis is available. Four of the eight recorded dies are

known from only a single example, and the Esty formulae indicate that the type may originally have had 12 dies. Unlike Ale Sca, there is a high degree of die-linkage from a small sample and it is likely that all dies will eventually form a single sequence.

The obverse is a left-facing head in a Roman style. The hair is well modelled and evocative of a Cunobelin Unit (Figure 5.34). Each of the three known dies has different devices to the left of the head, between the face and the inscription:

- Die A has the most complex design with a large ring and pellet in front of the chin, above which is a pellet-triangle from which a line stretches in an arc over the head
- Die B has a small, eight-rayed star before the mouth.
- Die C has a small ring before the mouth.

Around the head is inscribed SVB ESVPRASTO in a clockwise direction (see Williams 2000 for discussion), except in die B where the V preceding the P is inverted and the inscription could thus be read as SVB ESAPRASTO. On die A, there is a device following the O of Prasto (Figure III.86) this could be an additional letter but is more likely to be decorative and D. Nash Briggs, has reached a similar conclusion (pers. comm.).

Figure III.86. Additional ‘letter’ on die A

The reverse is a right-facing horse in a realistic style, with a pelleted-mane, and either one or two lines making up the tail, but with ‘hairs’ sweeping away on die 1. Immediately below the horse is a multi-pelleted ring with a central pellet and above it is a crescent. This crescent is not typically Icenian, and is composed of two almost complete

circles. There is an eight-rayed star before the horse on the two dies where this area is visible, and die 5 has a multi-rayed star behind the horse.

Above the horse is written ESICO, and below, FECIT. The former inscription appears unambiguous and can be read easily on dies 2–4. The lettering below is less straightforward, although FECIT is clearly inscribed on dies 1 and 4. Where visible, the lettering is more ambiguous on other dies, and on die 5 the inscription appears to read EECII. The ending is missing on die 3, but this also appears to start EE.

Grams	
1.05	00
1.04–1.00	
0.99–0.95	0
0.94–0.90	
0.89–0.85	
0.84–0.80	
0.79–0.75	
0.74–0.70	0000
Below 0.70	000

Table III.48. Weight distribution Esv Prasto

The two highest recorded weights are both 1.05g, the target weight is uncertain but clearly lower than most other Units. There is a core of a plated coin in poor condition, which appears to be struck from dies A:3.

III. 51 Ece A (I.52)

Figure III.87. Ece A from dies A:3

The obverse is as Ece B, although the outer horseshoe designs sometimes have a curtailed outer limb (Figure III.88). The earliest obverse die, die A, had some of the detail recut after it had been used in conjunction with reverses 1 and 2, and it was then used with three further reverse dies.

Figure III.88. Comparison between ‘horseshoe’ on Ece A and Ece B (right)

The reverse is distinctive with a right-facing stepping horse with a side-facing head evocative of North Thames types, including a bronze Unit of Cunobelin (Figure 3.70). The head on the first reverse die appears closest to the Cunobelin bronze, and then evolves, as shown in Figure III.89.

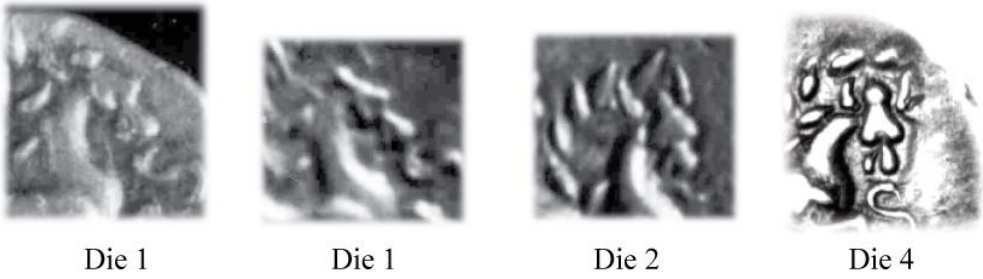


Figure III.89. Evolution of the Ece A head

The first three dies have a single large pellet on the horse’s shoulder, whilst later dies have a trefoil, as do Ece B dies 6–9. The mane is made up of two rows of elongated pellets in a shallow V, with a single pellet at the top. Above the horse is a five to nine-petal rosette, similar to that seen on Ecen, Ece B and Anted Units. Below the horse is written ECE and below the horse’s head is a clearly marked S, which becomes smaller from die 6. All reverse dies are similar, although the final dies 8, 10 and 11 have a slightly more serpentine neck.

Appendix IV Metal analysis of silver coinage

Database	Type	Dies	Source	Cu	Other	Tin	Ag	Bi	Pb	Au	Bullion
01 0294	Bury A	B:3a	MD 75	5.8	0.2	0.0	92.9	0.1	0.6	0.4	94.0
02 0241	Bury A	C:4	MD 79	2.2	0.1	0.0	97.2	0.1	0.5	0.0	97.8
87 0577	Bury A	E:3	MD 1	0.3	0.2	0.0	97.2	0.1	2.2	0.0	99.5
J698	Bury C	E:5	MD 74	3.1	0.1	0.0	95.8	0.0	0.5	0.5	96.8
J616	Bury B	C:8	MD 85	3.3	0.1	0.0	95.8	0.0	0.4	0.3	96.6
01 0296	Bury B	D:11	MD 76	6.9	0.4	1.2	90.0	0.1	0.8	0.6	91.5
02 0200	Bury B	E:19	MD 80	6.9	0.6	2.3	88.8	0.1	1.2	0.1	90.2
J474	Bury B	E:19	MD 86	4.2	0.1	0.0	94.8	0.1	0.5	0.3	95.7
NM 02	LFA	PA:F1	MD 33	25.3	0.4	0.0	73.0	0.0	0.9	0.4	74.3
J756	LFA	D:6	MD 81	3.1	0.1	0.0	95.6	0.1	0.7	0.4	96.9
NM 03	LFA	F:13	MD 36	3.8	0.1	0.0	95.2	0.1	0.5	0.3	96.0
J845	LFC	B:1	MD 83	4.3	0.1	0.0	94.6	0.1	0.5	0.4	95.6
01 0290	LFC	E:4	MD 82	4.3	0.1	0.0	94.5	0.1	0.7	0.4	95.7
99 0212	LFC	E:5	MD 20	11.5	0.2	0.0	87.8	0.0	0.2	0.3	88.4
NM F11	LFC	J:10	MD 57	9.5	0.2	0.0	88.9	0.1	0.8	0.5	90.4
99 0213	LFC	K:12	MD 23	5.8	0.1	0.7	92.6	0.0	0.4	0.3	93.4
92 0846	LFC	P:16	MD 78	1.4	0.1	0.0	97.8	0.1	0.6	0.0	98.5
99 0214	SU	H:15	MD 17	6.4	0.4	0.9	90.2	0.1	1.0	0.9	92.2
NM 05	SU	H:15	MD 42	17.3	0.4	0.0	81.8	0.0	0.3	0.1	82.3
NM 06	SU	M:18	MD 45	7.0	0.3	1.7	89.9	0.0	0.5	0.5	90.9
NM 01	PLU	A:1	MD 27	44.2	0.3	0.8	53.8	0.1	0.5	0.3	54.7
NM 07	IAU	A:1	MD 46	5.1	0.3	0.1	93.6	0.1	0.5	0.4	94.5
NM 04	STU	B:5	MD 40	30.1	1.1	0.0	67.3	0.1	1.3	0.1	68.8
99 0211	STU	B:8	MD 25	6.1	0.4	0.0	92.5	0.0	0.3	0.6	93.5
J849	STU	C:10	MD 77	2.6	0.0	0.0	96.3	0.0	0.3	0.6	97.3
NM 09	STU	G:15	MD 41	31.5	0.2	1.8	65.0	0.0	0.5	0.8	66.4
NM F6	EBH	B:5	MD 52	15.9	0.2	0.1	82.8	0.0	0.4	0.5	83.7
99 0234	EBH	B:5	MD 15	6.6	0.3	0.4	91.6	0.1	0.6	0.5	92.7
J774	Ali Sca	F:6	PNCS1.1	7.3	0.2	0.0	91.6	0.0	0.5	0.3	92.5
99 0620	EPH A	N:21	PNCS1.5	36.3	0.3	1.8	60.9	0.0	0.3	0.3	61.5
95 2908	EPH A	S:30	PNCS1.6	57.6	0.6	2.1	39.2	0.0	0.4	0.2	39.7
99 0219	EPH A	T:30	MD 24	27.6	0.5	2.2	69.2	0.1	0.3	0.3	69.8
61 0651	EPH A	BA:39	MD 14	20.0	0.4	0.3	78.9	0.2	0.2	0.1	79.3
99 0221	EPH B	B:9	MD 28	17.1	0.3	0.0	82.3	0.0	0.3	0.0	82.7
99 0220	EPH B	C:9	MD 26	6.5	0.4	5.0	87.5	0.1	0.5	0.0	88.1
82 0538	EPH B	H:16	PNc515	9.8	0.3	0.5	88.8	0.0	0.3	0.4	89.5
90 0784	EPH B	F:14	PNaga59	5.4	0.1		93.4	0.0	0.4	0.4	94.2
86 0096	BHA	C:2	PNc550	4.9	0.2	2.4	91.9	0.0	0.4	0.2	92.5
Meg37	BHA	H:4	MD 37	4.4	0.6	0.0	94.2	0.1	0.7	0.0	95.0
Meg43	BHA	H:5	MD 43	18.6	0.3	0.0	80.5	0.0	0.5	0.1	81.2
99 0204	BHB	D:5	MD 16	6.8	0.3	0.1	91.8	0.1	0.5	0.4	92.8
82 0514	BHB	F:7	PN c512	5.2	0.3	0.1	93.2	0.0	0.7	0.5	94.4
99 0202	BHB	G:9	MD 22	10.8	0.2	0.1	88.1	0.0	0.5	0.3	88.9
99 0203	BHB	L:10	MD 19	8.2	0.4	0.0	90.9	0.0	0.2	0.3	91.5
NM F9	BHB	M:13	MD 55	4.8	0.5	0.0	93.7	0.0	0.3	0.7	94.7
NM F7	BHB	M:15	MD 53	16.8	0.5	0.0	81.9	0.0	0.5	0.4	82.7
J685	BHC	G:25	MD 91	36.7	0.8	0.6	61.1	0.0	0.4	0.4	62.0
J548	BHC	K:32	MD 90	39.4	0.2	0.0	59.2	0.0	0.8	0.4	60.4

Database	Type	Dies	Source	Cu	Other	Tin	Ag	Bi	Pb	Au	Bullion
99 0207	BHC	X:58	MD 29	22.9	0.4	0.6	74.9	0.1	0.7	0.4	76.1
66 0342	BHC	NA:92	PNagc21	27.8	0.8	3.4	67.4	0.0	0.3	0.2	68.0
82 0526	BHC half	C:5	PNc544	8.6	2.5	0.0	87.0	0.0	1.7	0.3	88.9
J127	BHCD	A:1	MD 88	22.3	0.3	0.0	76.9	0.0	0.3	0.2	77.4
82 0578	BHCD	A:2	PNc522	35.6	0.2	0.0	62.7	0.0	0.3	0.3	63.3
Meg47	BH CD	A:3	MD 47	12.0	0.3	0.2	86.8	0.1	0.4	0.3	87.6
61 0811	LFH	C:4	MD 3	18.2	0.5	2.3	78.2	0.0	0.4	0.4	79.0
J212	LFH	F:5	MD 99	54.8	0.2	1.2	43.1	0.0	0.3	0.3	43.8
66 0350	LFH	F:9	PNagc17	51.8	0.4	1.6	45.6	0.0	0.5	0.2	46.3
J436	LFH	M:18	MD 95	11.7	1.7	2.0	84.1	0.0	0.2	0.2	84.6
J717	LFH	LA:40	MD 92	67.6	0.2	0.2	31.5	0.0	0.2	0.2	31.9
J210	LFH	NA:43	MD 97	38.7	0.4	1.3	58.9	0.1	0.4	0.3	59.6
Meg38	LFH	ZA:55	MD 38	37.2	0.6	2.5	58.9	0.1	0.4	0.4	59.7
J584	LFH	ZA:55	MD 101	8.5	0.1	1.4	89.2	0.1	0.4	0.3	90.0
82 0533	LFH	BB:64	PNc513	26.4	1.2	1.4	70.0	0.0	0.4	0.6	70.9
66 0349	LFH	CB:64	PNagc18	41.9	0.6	2.8	54.2	0.0	0.4	0.1	54.7
61 0802	LFH	QB:75	MD 5	30.7	0.3	1.4	67.0	0.0	0.5	0.1	67.6
66 0345	LFH	QB:75	PNagc19	39.4	0.6	0.0	59.4	0.0	0.4	0.2	60.0
Meg59	LFH	QB:85	MD 59	21.5	0.7	2.4	74.7	0.0	0.4	0.3	75.4
66 0352	LFH	SB:79	PNagc20	47.4	0.7	1.6	49.6	0.0	0.4	0.3	50.3
66 0347	LFH	WB:85	PNagc16	34.8	0.3	5.0	55.7	0.0	0.2	0.4	56.3
J712	LFH	CC:90	MD 94	8.6	0.4	3.0	87.1	0.0	0.7	0.2	88.0
Meg58	LFH	DC:92	MD 58	27.1	0.5	0.6	70.4	0.0	1.0	0.3	71.7
61 0807	LFH	EC:93	MD 9	14.7	0.7	2.0	81.7	0.0	0.6	0.3	82.6
61 0803	LFH	GC 93	MD 4	9.2	0.4	2.3	87.0	0.0	0.9	0.2	88.2
61 0805	LFH	KC:97	MD 6	9.0	0.5	1.9	87.6	0.0	0.8	0.3	88.7
61 0804	LFH	KC:97	MD 10	9.6	0.8	2.8	85.6	0.0	0.9	0.3	86.8
Meg64	Anted	A:3	MD 64	24.5	0.4	0.1	74.3	0.1	0.4	0.2	75.0
66 0366	Anted	A:4	PNagc12	53.0	0.3	1.2	44.9	0.1	0.4	0.2	45.6
J1007	Anted	A:6	MD84	4.5	0.1	0.0	93.8	0.1	1.0	0.5	95.4
61 1059	Anted	B:7	MD 12	12.8	0.6	1.1	84.8	0.1	0.5	0.2	85.6
MD 44	Anted	C:7	MD 44	46.7	0.1	0.0	52.6	0.0	0.3	0.3	53.1
MD 62	Anted	D:14	MD 62	19.7	0.1	0.4	78.5	0.0	0.2	1.0	79.7
61 1170	Anted	H:14	MD 11	37.5	0.4	0.0	61.3	0.1	0.4	0.3	62.1
66 0362	Anted	L:21	PNagc11	51.1	0.6	0.0	48.0	0.1	0.2	0.1	48.4
J368	Anted	M:28	MD 102	59.8	0.8	0.2	38.5	0.0	0.3	0.3	39.1
67 0463	Anted	M:27	PNc517	27.8	0.3	0.0	71.0	0.0	0.5	0.3	71.8
82 0555	Anted	M:27	PNc518	58.8	0.2	0.9	39.8	0.0	0.1	0.1	40.0
Meg 60	Anted	N:29	MD 60	25.9	0.4	0.0	72.8	0.0	0.5	0.3	73.6
Meg 61	Anted	N:32	MD 61	24.3	0.7	0.0	74.4	0.0	0.2	0.4	75.0
66 0363	Anted	P:35	PNagc9	53.6	0.2	0.0	45.5	0.1	0.2	0.3	46.1
82 0551	Anted	Q:37	PNc519	43.0	0.3	1.4	54.7	0.0	0.5	0.0	55.2
Meg 66	Ecen	E:12	MD 66	13.9	0.5	0.0	84.7	0.0	0.5	0.4	85.6
61 1256	Ecen	E:12	MD 7	46.4	0.2	0.7	52.0	0.0	0.4	0.2	52.7
66 0371	Ecen	G:12	PNagc4	58.2	0.4	0.3	40.3	0.1	0.5	0.2	41.1
Meg 34	Ecen	H:14	MD 34	24.5	0.5	0.4	73.8	0.0	0.5	0.3	74.6
Meg 67	Ecen	J:17	MD 67	6.0	0.2	0.0	93.1	0.0	0.2	0.5	93.8
99 0247	Ecen	J:18	MD 18	7.4	0.3	0.6	90.2	0.0	1.2	0.3	91.7
01 0684	Ecen	J:18	PNCS13	27.3	0.2	0.6	70.7	0.0	0.8	0.2	71.8
66 0372	Ecen	vwd:23	PNagc5	55.9	0.4	0.7	42.4	0.0	0.4	0.3	43.1

Database	Type	Dies	Source	Cu	Other	Tin	Ag	Bi	Pb	Au	Bullion
66 0370	Ecen	M:23	PNagc1	47.3	0.5	0.3	50.7	0.1	0.6	0.2	51.6
66 0369	Ecen	N:24	PNagc26	36.7	0.2	2.3	59.9	0.0	0.5	0.4	60.8
Meg 69	Ecen	N:21	MD 69	39.1	0.8	0.0	59.2	0.0	0.4	0.4	60.1
Meg 65	Ecen	N:26	MD 65	24.1	0.4	0.0	74.7	0.0	0.3	0.5	75.5
Meg 39	Ecen	N:27	MD 39	27.2	0.3	1.1	70.5	0.0	0.5	0.3	71.4
61 1206	Ecen	P:29	MD 8	26.1	0.3	0.9	71.8	0.0	0.6	0.3	72.7
Meg 68	Ecen	U:34	MD 68	5.7	0.8	0.1	91.7	0.0	0.7	1.0	93.4
99 0238	Ecen	U:34	MD 30	15.8	0.2	0.5	82.3	0.0	0.6	0.5	83.4
Meg 13	Ecen	V:38	MD 13	5.2	0.6	1.0	92.1	0.1	0.7	0.4	93.2
66 0381	Ecen	W:39	PNagc10	44.8	0.2	0.4	53.8	0.1	0.4	0.4	54.6
66 0359	Ecen	W:39	PNagc14	19.5	0.3	0.9	77.4	0.0	0.7	0.3	78.4
66 0367	Ecen	Y:45	PNagc6	56.5	0.3	0.1	43.2	0.0	0.1	0.3	43.6
J791	Ecen	Y:45	MD 98	28.9	0.4	0.7	69.3	0.0	0.2	0.4	69.9
66 0360	Ecen Hf	C:15	PNagc13	39.0	0.5	0.0	60.1	0.0	0.1	0.3	60.5
82 0566	Ece A	B:3	PNc521	48.6	0.2	0.6	49.9	0.0	0.4	0.3	50.6
Meg 70	Ece A	D:4	MD 70	29.9	0.3	0.0	69.1	0.0	0.1	0.6	69.8
J138	Ece A	G:7	MD 87	49.1	0.6	1.4	48.1	0.0	0.6	0.2	48.9
66 0380	Saenv	A:1	PNagc8	58.8	0.4	0.4	40.0	0.0	0.2	0.2	40.4
J129	Saenv	A:1	MD 89	60.0	0.3	0.7	38.5	0.0	0.2	0.4	39.1
86 0098	Aesv	A:3	PNc555	31.9	0.5	0.6	65.9	0.0	0.7	0.4	67.0
Meg 73	Aesv	A:3	MD 73	31.3	0.3	0.0	67.6	0.0	0.5	0.3	68.5
Meg 35	Ece B	D 10	MD 35	13.2	0.7	1.7	82.2	0.0	1.8	0.5	84.5
66 0378	Ece B	E:13	PNagc7	41.2	0.2	0.3	57.7	0.0	0.3	0.3	58.3
J867	Ece B	F:16	MD 93	17.5	0.4	0.6	80.3	0.0	0.8	0.3	81.5
Meg 72	Ece B	G:16	MD 72	46.2	0.5	0.0	52.8	0.0	0.3	0.2	53.4
Meg 100	Ece B	G:17	MD 71	22.1	0.4	0.0	76.5	0.1	0.7	0.3	77.5
J866	Ece B	H:18	MD 100	10.8	0.6	1.6	85.1	0.1	1.6	0.3	87.0
99 0206	BHC	Poor	MD 31	21.4	0.5	1.0	76.1	0.0	0.8	0.3	77.2
BMC3451	BHA	B:1	MRC	56.0		1.5	42.0				
BMC3452	BHA	M:6	MRC	56.0			43.0		0.6		
BMC3459	BHB	M:10	MRC	49.0			51.0				
BMC3467	BHB	Q:22	MRC	48.0			52.0				
BMC3499	BHC	CA:71	MRC	54.0			46.0				
BMC3503	BHC	N:51	MRC	48.0		5.8	46.0				
BMC3521	BHCD	A:1	MRC	49.0			51.0				
BMC3570	LFH	M:19	MRC	49.0			51.0				
BMC3581	LFH	R:24	MRC	51.0		1.5	48.0			0.4	
BMC3585	LFH	P:22	MRC	49.0		1.4	50.0				
BMC3599	LFH	P:22	MRC	49.0		1.5	50.0		0.5		
BMC3606	LFH	ZA:55	MRC	48.0		3.8	48.0		0.4	0.4	
BMC3607	LFH	ZA:55	MRC	45.0		0.8	54.0		0.4		
BMC3625	LFH	EA:37	MRC	53.0			47.0				
BMC3630	LFH	Y:34	MRC	50.0			50.0		0.4		
BMC3633	LFH	BB:64	MRC	41.0		0.7	59.0				
BMC3637	LFH	RA:47	MRC	51.0		1.6	47.0				
BMC3661	LFH	CC:90	MRC	49.0		1.6	49.0		0.5		
BMC3766	EPH A	FA:42	MRC	62.0		4.9	33.0		0.4		
BMC3771	EPH B	J:16	MRC	52.0			48.0				
BMC3809	Anted	N:32	MRC	59.0			41.0				

Database	Type	Dies	Source	Cu	Other	Tin	Ag	Bi	Pb	Au	Bullion
BMC3820	Anted	M:27	MRC	54.0		0.4	46.0				
BMC3858	Anted	AA:45	MRC	58.0			42.0				
BMC3883	Anted	L:26	MRC	52.0		0.8	47.0				
BMC4057	Ecen	E:12	MRC	52.0			48.0				
BMC4135	Ecen	E:15	MRC	50.0		0.6	49.0		0.4		
BMC4223	Ecen	L:24	MRC	52.0		0.6	47.0		0.6	0.5	
BMC4280	Ecen	Y:40	MRC	50.0		0.7	49.0		0.4		
BMC4315	Ecen	Z:45	MRC	52.0		0.7	47.0			0.4	
BMC4316	Ecen	Z:45	MRC	58.0		0.4	42.0			0.3	
BMC4343	Ecen	Poor	MRC	40.0			60.0		0.4		
BMC4384	Ece A	E:5	MRC	51.0			49.0				
BMC4392	Ece A	G:7	MRC	48.0		0.7	51.0		0.5		
BMC4493	Ece B	H:18	MRC	55.0		0.6	44.0				
BMC4496	Ece B	E:12	MRC	54.0			46.0				
BMC4527	Ece B	D:11	MRC	52.0		0.5	47.0			0.5	
BMC4531	Ece B	D:11	MRC	52.0			48.0				
BMC4552	Saenv	A:1	MRC	52.0		0.5	47.0		0.4		
BMC4554	Saenv	A:2	MRC	56.0		0.7	43.0			0.4	
BMC4562	Aesv	A:3	MRC	52.0			48.0				
BMC4565	Aesv	A:3	MRC	49.0		0.6	50.0				
Plated											
82 0552	Anted	N:31	PNc516	11.7		0.2	87.0	0.1	0.4	0.3	87.8
99 0210	BH FU	plated	MD 32	97.3	0.6	0.0	0.4	0.0	1.6	0.0	2.1
NM F8	EBH FU	F1:R1	MD 54	38.0	0.4	0.0	60.6	0.0	0.7	0.3	61.6
NM F10	SU core	H:15	MD 56	98.3	0.7	0.8	0.2	0.0	0.0	0.0	0.3
Meg63	Anted		MD 63	35.0	0.9	0.8	62.2	0.1	0.8	0.2	63.3
BMC3760	LFH plate	F8:R8	MRC	62.0			38.0				
BMC3760	LFH core	F8:R8	MRC	98.0		2.0	0.0				
BMC4282	Ecen core		MRC	98.0			2.0				
BMC4344	Ecen plate	F2:R4	MRC	61.0		2.2	37.0				
BMC4344	Ecen core	F2:R4	MRC	96.0		3.3	1.0				
Sources of data											
MD–Dennis 2005, appendix C.											
PN C-SNorthover 2007											
PN c/a/agc–Northover 1992											

Appendix V Metal analysis of gold coinage

Database	Type	Die-group	Source	Dies	Au	Ag	Cu	Tin
98 1201	JA	1	PN 2007	E 1	55.2	34.7	9.7	0.17
69 0539	JA	5	MRC 909	M 13	39.9	43.9	15.5	0.30
69 0543	JA	5	MRC 909	M 13	41.5	41.4	16.9	<0.2
69 0541	JA	5	MRC 910	P 21	38.4	45.5	16.1	<0.2
67 0357	JA	5	PN 1992	M 14	39.4	45.5	14.9	0.00
Average	**JA**	**5**			**39.8**	**44.1**	**15.9**	
69 0544	JB	A 1	MRC 334	A 2	30.5	47.0	22.1	0.20
01 0283	JB	A 4	PN 2007	D 11	31.5	43.9	24.2	0.30
69 0545	JB	C 10	MRC 387	L 27	26.1	46.1	27.7	<0.2
VA 1	JB	C 16	PN 1992	T 43	22.9	44.7	32.1	0.00
97 0072	JB	C 16	BMC218	T 46	16.0	42.0	40.0	
97 0081	JB	C 16	BMC228	T 51	17.0	27.0	52.0	
97 0108	JB	C 16	BMC255	T 56	10.0	36.0	52.0	
97 0090	JB	C 16	BMC237	T 57	14.0	41.0	44.0	
97 0097	JB	C 16	BMC244	T 57	14.0	38.0	45.0	
97 0106	JB	C 16	BMC253	U 58	13.0	39.0	45.0	
97 0076	JB	C 16	BMC222	U 61	17.0	43.0	37.0	
97 0075	JB	C 16	BMC221	U 61	12.0	37.0	47.0	
08 8917	JB	C 16	PN 2007	U 63	15.9	35.3	46.5	1.69
94 0188	JB	C 16	JD	Vwd64	29.0	52.0	14.0	5.00
Average	**JB**	**C 16**			**16.4**	**39.5**	**41.3**	
97 0112	JB	D 17	BMC259	W 65	15.0	28.0	51.0	
97 0111	JB	D 17	BMC258	X 66	13.0	24.0	57.0	
97 0116	JB	D 18	BMC263	Y 68	20.0	31.0	41.0	
97 0122	JB	D 18	BMC269	AA 71	10.0	28.0	57.0	
97 0125	JB	D 18	BMC272	AA 72	13.0	29.0	52.0	
97 0113	JB	D 18	BMC260	BA 71	11.0	30.0	53.0	
Average	**JB**	**D**			**13.7**	**28.3**	**51.8**	
96 2703	SS	1	BMC3353	B 4	36.0	39.0	21.0	
96 2705	SS	1	BMC3355	B 4	35.0	35.0	28.0	
96 2707	SS	1	BMC3357	C 3	36.0	33.0	28.0	
96 2709	SS	1	BMC3359	D 3	39.0	30.0	27.0	
96 2712	SS	2	BMC3362	vwd 9	39.0	31.0	29.0	
96 2716	SS	2	BMC3366	F 8	39.0	33.0	27.0	
96 2721	SS	2	BMC3371	F 8	38.0	27.0	34.0	
68 0954	SS	2	BMC3375	G 11	40.0	31.0	27.0	
96 2726	SS	2	BMC3377	vwd 11	31.0	24.0	43.0	
96 2728	SS	2	BMC3379	G 11	39.0	35.0	24.0	

Database	Type	Die-group	Source	Dies	Au	Ag	Cu	Tin
96 2732	SS	3	BMC3383	H 13	37.0	24.0	39.0	
96 2711	SS	other	BMC3361	vwd 7	39.0	35.0	24.0	
Average	**SS**				**37.3**	**31.4**	**29.3**	
96 2746	Early SQ		BMC3435	B 2	40.0	38.0	19.0	
96 2733	SQ	1	BMC3420	A 1	39.0	36.0	22.0	
96 2734	SQ	1	BMC3421	A 3	40.0	34.0	24.0	
96 2735	SQ	1	BMC3422	A 4	37.0	31.0	32.0	
96 2739	SQ	1	BMC3426	A 4	37.0	32.0	30.0	
BMC 3429	SQ	1	BMC3429	C 5	37.0	37.0	24.0	
96 2743	SQ	1	BMC3431	C 5	38.0	31.0	28.0	
Average					**38.0**	**33.5**	**26.7**	
96 1847	SQ	2	BMC3433	E 14	29.0	22.0	45.0	
68 1001	PS	2	MRC 194	poor 11	36.2	29.5	33.8	0.50
68 1003	PS	2	MRC 191	poor 13	34.0	30.8	34.9	0.30
68 1002	PS	2	MRC 190	D 13	34.9	29.9	34.1	1.10
68 0979	PS	2	MRC 199	E 12	40.6	10.9	47.8	0.30
Average	PS	**2**			**36.4**	**25.3**	**37.7**	
68 1005	PS	1	MRC 189	A 1	38.3	29.3	31.0	1.40
Average	**PS**				**36.8**	**26.1**	**36.3**	
68 0977	Irstead	1	MRC 198	A 2	41.0	24.8	33.9	0.30
68 0980	Irstead	1	MRC 197	A 4	41.4	19.3	39.1	0.20
Average	**Irstead**	**1**			**41.2**	**22.1**	**36.5**	
68 0983	Irstead	2	MRC 196	B 5	39.5	20.3	40.0	0.20
68 0978	Irstead	2	MRC 195	B 5	39.1	18.1	42.7	<0.1
Average	**Irstead**	**2**			**39.3**	**19.2**	**41.4**	
68 0976	Irstead	3	BMC3396	D 7	33.0	24.0	43.0	
68 0981	Irstead	3	MRC 201	E 10	40.0	20.8	38.9	<0.2
Average	**Irstead**	**3**			**36.5**	**22.4**	**41.0**	
Average	**Irstead**				39.0	21.2	39.6	
02 0240	Irstead Q	2	PN 2007	E 5	39.5	19.7	40.7	0.00
68 0990	EBH	1	MRC 207	A 3	41.3	20.1	38.2	0.30
68 0999	EBH	1	MRC 212	A 8	34.0	21.9	43.2	0.70
68 0995	EBH	1	MRC 213	A 8	38.4	22.1	38.5	1.00
68 0997	EBH	1	BMC3413	A 5	43.0	18.0	40.0	
68 0993	EBH	1	BMC3416	A 4	48.0	35.0	17.0	
68 0991	EBH	1	MRC 209	A 4	32.0	21.5	44.8	1.50
68 0992	EBH	1	MRC 210	A 6	38.9	22.2	38.6	0.30
68 0998	EBH	1	MRC 211	A 6	38.3	24.5	36.8	0.40
Average	**EBH**	**1**			**39.2**	**23.2**	**37.1**	
68 0987	EBH	2	MRC 204	B 11	31.5	24.8	43.2	0.50

Database	Type	Die-group	Source	Dies	Au	Ag	Cu	Tin
68 0988	EBH	2	MRC 202	B 9	38.1	25.0	35.4	1.30
68 0985	EBH	2	MRC 203	B 12	33.2	25.1	40.7	0.90
68 0986	EBH	2	MRC 205	B 14	38.9	23.6	37.4	<0.1
Average	**EBH**	**2**			**35.4**	**24.6**	**39.2**	
Average					38.0	23.7	37.8	
61 0433	BHB	1	BMC3389	A 3	35.0	29.0	36.0	
68 0975	BHB	1	MRC 184	C 6	36.7	15.3	48.0	0.10
68 0974	BHB	3	MRC 186	J 10	36.8	13.7	46.1	3.30
68 0973	BHB	5	MRC 188	M 13	39.1	15.9	45.0	<0.1
Average	**BHB**				**36.9**	**18.5**	**43.8**	
J541	BHB Q		PN 2007	A 1	38.0	19.6	42.0	0.11
68 0969	BHC	1	BMC385	A 1	34.0	22.0	44.0	
68 1221	Anted St		MRC 280	A 1	33.9	16.0	49.7	0.40

Sources of data

PN 1992–Northover 1992

PN 2007–Northover 2007 tests undertaken for author (pers. comm.)

MRC–Cowell 1992

BMC–Hobbs 1996

JD–Information from John Davies at Norwich Museum (pers. comm.)

Appendix VI The dating of the late hoards

In an article in the Oxford Journal of Archaeology in 1994, John Creighton sought to demonstrate that the widespread assumption that late hoards of Icenian coinage related to the Boudiccan revolt was incorrect. His analysis showed that the hoards contained differing proportions of 'early' Icenian coinage, and as a result he concluded that the hoards had been deposited over a range of dates between the conquest (AD 43) and the revolt (AD 60/1).

My analysis did not find any such differences in Icenian content and this appendix re-examines the data upon which Creighton based his conclusions. The key differentiating factor between our analyses is that Creighton included in his dataset a number of poorly recorded hoards from the 19th century and early 20th century, alongside fully recorded more recent hoards. He made an assumption that the original content of each of the poorly recorded hoards would have the same mix as the coins which Allen (1970) had traced as having come from each such hoard. This assumption is not explicit in Creighton's paper, but is implied and I have reconciled his figure 1 (1994: 327) to the data in Allen's Appendix C (1970: 21).

The poorly recorded hoards included by Creighton are shown in Table VI.1 with the number of recorded coins traced by Allen and Allen's estimates of hoard sizes. Creighton lists the hoard sizes (table 1), but did not disclose the number of recorded coins used as the basis for the extrapolation.

Hoard name	Recorded coins	Estimated total Icenian content
Weston Longville	44	150–300
Santon Downham	79	107
Wimblington	50	c. 300
March	8	40–50

Table VI.1 Early hoards extrapolated by Creighton

The extrapolation of surviving records to assess original content of a LIA hoard is almost certain to cause distortion, as surviving records of coins from these hoards is likely to be biased towards earlier and rarer types. On discovery, such coins would have been viewed as the most interesting and examples would have been more likely to be retained or described in detail. A larger proportion of the common types, present in greater volume, would be more likely to have been dispersed or melted down and not fully recorded. Such a process has been shown to have happened with the Freckenham hoard of Staters (Talbot and Leins 2011: 11 and 14).

Creighton produced a 'seriation' of the hoards, starting with those which appeared to contain the highest proportion of early Icenian content. To assess the relative age of the types of coins Creighton used the 'periodization' developed by Haselgrove (1987). Creighton's statistics imply a series of depositions between the conquest and the revolt. It is clear from the table below that those hoards, which Creighton has inferred as being the earliest in an Iron Age sense, are the poorly recorded hoards found many years ago and a recent hoard from Chatteris, which contained only seven coins. Table VI.2 lists the hoards in Creighton's assumed chronological order of deposition; the Honingham hoard marks the start of the fully documented large hoards.

Hoards in Creighton order – earliest first	**Date of discovery**
Weston	1852
Santon Downham	1869
Wimblington	Pre 1906
Chatteris	c. 1986 (Only 7 coins)
March	1839
Honingham	1951
Lakenheath	1959
Field Baulk	1982
Fring	1990
Eriswell	1972
Scole	1982–3
Joist Fen	c. 1950's

Table VI.2 Icenian hoards as ordered by Creighton

It is clear from this table that Creighton's methodology did not show the chronology of hoard closure or deposition, but the relative chronology of the two main phases of discovery.

The Wimblington hoard illustrates the danger of assuming that the content of poorly recorded hoards can be extrapolated from the small numbers of surviving coins. The 50 recorded coins from this hoard include three early Face-Horse Units; on the basis of Creighton's extrapolation the hoard was treated for comparative purposes as if it contained eighteen such Units. This highly unlikely conclusion needs to be viewed in the context of Allen only having traced a total of six early Face-Horse Units from all known sources in his 1970 paper on Icenian coinage. It is much more likely that the three recorded from Wimbledon were the only present in 300 coin hoard; a similar ratio is seen in the Fring hoard of 171 coins, which contained two coins of this type.

There was a second decision which also distorted Creighton's statistics; this relates to the LFH Issue. In accordance with normal practice at the time, these were divided into Normal Face Horse A and Normal Face Horse B, which he allocated to his phases 7 and 8, respectively. He stated that 'if in doubt coins have been allocated as class IIIb', by which he means phase 7 (Creighton 1994: 327, notes to figure 1). The only hoards where there was such doubt were the poorly recorded Victorian hoards from Weston, Santon Downham and Wimblington (Allen 1970: appendix C). This distortion had the effect of automatically propelling these hoards further backwards in assumed date of deposition.

Creighton's work was criticised by Van Arsdell (1996) in a subsequent issue of the Oxford Journal, which was in turn attacked by Orton (1997). Orton concluded that some of the hoards were indeed different, but he lacked the data which would have enabled him to understand the basis on which the evidence had been compiled.

Appendix VII Assessment of the accuracy of the Esty formula

Warren Esty has developed well-known formulae for estimating the original population of dies for a particular type of coin by using the results of a die-study (2006: 359–60). The formulae use the number of dies that are represented by only a single coin in the sample to assess the coverage of that sample. The coverage is the measure of the probability that the next coin found of a particular type will be from a die that is already known.

Coverage is expressed as a number between 0 and 1. Thus from a sample of forty coins, if 10 of the sample were the only examples of particular reverse dies, the other 30 coming from dies in respect of each of which there were several examples, the coverage would be expressed as 0.75. If twenty of the sample were each the unique examples of their reverse dies, and the twenty others were multiple examples from other dies, the coverage would be 0.5 and so on. Thus the number of coins in any sample, which are the only example of a particular die, is the key element in the calculation.

Esty's formulae generates both a 'point estimate', which is the best guess of the original die population and 'confidence ranges', which he estimates will capture the original population of dies in 95% of cases. These confidence intervals can be quite wide for types where the 'coverage' is low. Esty warned that results from the application of his formulae should be treated with caution, as they are vulnerable to non-random samples, small sample sizes and the number of dies broken at an early stage being unknowable.

My Access database holding the results of the die-study provides an opportunity to assess the applicability of the Esty formulae to Icenian coinage. By using Celtic Coin Index year numbers, it is possible to recreate the data which would have been available at points of time in the past, and to compare them to current actual and projected data. The results of this exercise are summarised in Table VII.1.

Type	Date	No.	Reverse dies		Coverage	Point estimate	Confidence level	
			Unique	Present			Low	High
1 BHC U	All	435	24	102	0.945	121	112	130
2 BHC U	Pre 2000	226	36	86	0.841	124	108	142
3 BHC U	Pre 1990	77	30	47	0.610	102	71	146
4 Ece B	All	579	2	21	0.997	22	22	23
5 Ece B	Pre 1990	135	2	20	0.985	21	19	23
6 Ece B	Pre 1965	93	4	19	0.957	22	19	25
7 Ir S	All	242	2	11	0.992	12	12	13
8 Ir S	Pre 1990	20	3	8	0.850	11	7	18
9 Ir S	Pre 1965	5	3	4	0.400	14	15	73
10 LFA	All	77	12	27	0.844	39	31	49
11 LFA	Pre 2000	36	9	17	0.750	29	19	43
12 LFA	Pre 1990	6	4	5	0.333	21	25	115
13 JB	All	396	28	80	0.929	101	94	109
14 JB	Pre 1996	107	22	42	0.794	67	54	83
15 JB	Pre 1990	24	12	17	0.500	46	24	97

Table VII.1. Esty calculations of reverse die numbers based on current and historic data

The first three sets of data in the table all relate to the BHC Unit. The first line of calculations in the table has an entry in the date column is marked ‘All’, which means that the calculation is based upon all BHC Units recorded in the database. This currently contains records of 435 BHC Units of which 24 are the sole example of the reverse die used to strike the coin. The die-study has revealed that 102 different reverse dies were used in the striking of these 435 coins. The final four columns show the results of ‘Esty’ calculations based upon this data, the best estimate being that there were originally 121 dies used to strike this coinage and that there is a 95% probability that original die number fell between 112 and 130 dies. Thus, if the estimate is accurate, 19 dies have so far not yet been found on recorded coins.

In the third line of calculations, the date column is marked ‘pre-1990’. I have re-created the database to exclude all entries which postdate 1989, leaving 77 BHC Units which were recorded with the Celtic Coin Index up to and including1989. At this time there were 30 dies represented by a single example from a total of only 47 known dies.

Esty's formulae based on the pre-1990 data suggested there were originally 102 reverse dies, coincidentally the number now known and thus almost certain to be an underestimate.

The following general conclusions are indicated by this analysis:

- At very high levels of coverage the 'point estimate' of the number of original dies appears stable and reasonably accurate, thus the 93 Ece B Units known before 1965 indicated the same original reverse die population as the 579 Ece B Units which are now recorded.
- Estimates based on low levels of coverage generally underestimate the original population (see tests 3, 12 and 15). Test 15 on JB Staters known before 1990 suggests that there were only 46 original dies, whereas 80 were known at the closure of the database; the present forecast of original dies lies above the high limit of the 95% confidence level for pre 1990 data. Test 8 is an exception with a surprisingly accurate forecast of original die numbers based on 5 Irstead Staters known before 1965; this slightly exceeds the projection based upon the 242 examples now known.

Table VII.2 analyses coverage in respect of the 68 types of Icenian coinage. The computation excludes 15 types with less than six known coins; in view of the high number of recoveries of other types from all periods these are likely to be small local types and Esty calculations are likely to be misleading.

	Stater	**Quarter**	**Unit**	**Half Unit**	**Total**
Both dies over 0.95 coverage	3	3	11	4	21
Both dies over 0.90 coverage	6	1	6	1	14
Both dies over 0.80 coverage		1	6	1	8
One or more dies below 0.80		1	3	6	10
Small issues not included	2	4	4	5	15
Total	11	10	30	17	68

Table VII.2. Summary of types of Icenian coinages by 'coverage' of dies

The table shows that there is a high level of coverage for almost all types of gold and for most types of Unit, thus for these types the Esty formula should thus give a reasonably accurate assessment of the original die population. Many types of Half Unit and several Units have relatively low levels of coverage. The three Units with low coverage are LFB, Plouviez and Irstead B. Although these only have reverse die coverage of between 0.65 and 0.79 they all have levels of obverse die coverage of over 0.9, implying that there is no major underestimate of the scale of these issues.

Although in relative terms some Icenian types have poor coverage, this is not the case when they are compared to die-studies of other coinages. In a 1995 article, de Callataÿ supported the logic of the methodology developed by Esty and discussed the likelihood of obtaining sensible statistical answers when the ratio of coins to obverse dies exceeds three. The average across the Icenian coinage is 16.7 which compares, for instance, with an overall average of 2.75 for the Cistophoric Tetradrachm study quoted by de Callataÿ. Several of the Icenian types with low levels of coverage such as LFB, Plouviez and Irstead B Units still exceed three coins per obverse die.

Most of the major types of Units have extremely high levels of coverage, such as the Ecen Unit at 0.997 for the obverse dies and 0.992 for the reverse. There are some exceptions such as EPH (A) where the levels of coverage, at only 0.887 for the obverse and 0.805 for the reverse, have resulted in my inability to examine sufficient dies to resolve the organisation of this coinage.

Appendix VIII The methodology used in the die-study

This appendix sets out in detail the methodology followed in conducting the die-study:

- The photographic records of Icenian coinage in the Celtic Coin Index ('CCI') coinage were examined one type of coin at a time and images were printed of the obverse and reverse of every known example, usually at approximately twice normal size. For many types this involved hundreds of images.
- The images then received their primary sort into dies. The first coin had its obverse called A, and its reverse 1, and the two images were mounted onto a card specifically allocated to that die-combination with the CCI reference under the pair of photographs; the process was repeated for the second coin and, if the dies were different, they would be called B:2 and so on. During this process each new coin would be checked to existing cards to see if it was a repeat of a die-combination already identified and, if so, it would be added to the appropriate card. If the third coin had die A as the obverse, but an unknown reverse die for the reverse, it would have been called A:3 and mounted onto a new card.
- If there was any uncertainty about a possible match with an existing die, the coin would be given a new number and/or letter and would be entered onto a new card, with a note about possible die-matches.
- After completing the first, say, 30 or 40 coins there would usually be several examples of some die-combinations. At this stage Adobe Photoshop and Adobe Illustrator would be used to prepare a photographic die-chart showing the dies and the die-links identified to date, each die being identified by its reference letter or number with lines drawn between relevant photographs to represent die-links.

- The identification and mounting exercise continued until multiple copies of some of the dies had been identified. At this stage composite photographic images were prepared of particularly difficult or very common dies and added to the photographic die-chart. The process of compiling the photographic die-charts usually resulted in the consolidation of dies which had been originally treated as different dies. The most common reasons for coins not immediately being identified as emanating from the same die is because they were struck at different points in the life of the die, when the die was in a different 'states' (fresh, worn, extremely worn or even re-touched) or because they were centred on different areas of the same die.
- Attempts to consolidate dies were made continuously as the identification exercise continued. For dies subjected to significant use and extreme wear, charts were compiled illustrating how those dies changed over their life. A sequence of die-wear for an Ecen Unit die is shown in Figure VIII.1; the illustrations are inverted relative to the example of the die shown on Appendix I.36.

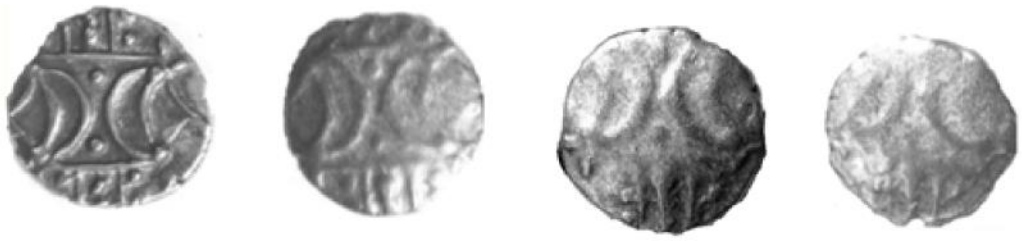


Figure VIII.1. Ecen die J showing deterioration as a result of wear

- In order to identify difficult dies and avoid mistakes in consolidation Adobe Photoshop was used to overlay one coin on another – cutting through layers and fading in and out to establish whether the images could be synchronised. It was frequently necessary to re-size images for this to take place.

- After the first run-through of all coins of a type, the resultant die-chart would contain many die images, some of which were starting to form die-chains.
- At this stage there will usually be more dies in the chart than originally existed. It is easier to consolidate dies than to correct mistaken allocations and, therefore, if there is doubt about whether two coins were struck from the same die, they are provisionally given separate die references.
- Each card was then re-examined to find opportunities to consolidate dies and re-check that the allocation of coins to a particular die-combinations. Having all coins from a particular die-combination on a single card, or number of cards if there are many examples, is particularly valuable. Often a die will be in the same phase of its life when paired with another specific die, unless they were both used together over a long period. For instance, the pairing C:8 may always see a very fresh C combined with a worn die 8, whereas the pairing C:10 may consistently see a worn die C with a fresh die 10, and so on. Any example of a combination that shows a different wear profile to others of the same combination has been carefully re-examined to ensure the accuracy of the die identification.
- If the only examples of a particular die show considerable die wear, strenuous efforts were made to find coins which were struck in the earlier stages of its 'life'. In most cases, early examples were found and this work often identified those dies whose appearance had changed. This often resulted in the consolidation of what had been treated as two dies, into one.
- Throughout the process there is constant reference to original coins; these were essential to confirm certain consolidations and to separate coins struck from very similar or much worn dies. A reference collection was used containing many coins struck from different dies, but with a particular

emphasis on coins struck from highly deteriorated, or severely off-struck, dies. The major public collections, particularly the British Museum, Norwich Museum and the Fitzwilliam Museum were used, as were major private collections.

- During the course of the die-study, all die identifications were examined at least three times with particular focus on the life histories of those dies that became worn and upon critical points in die-chains. In many extensive die-chains for much of the chart there will be two, three, or more parallel links, but at certain points the validity of the chain may be dependent on a single link, represented by only a few coins. These critical links in the chain received intense critical re-examination, as the validity of all conclusions drawn from the chain are dependent upon the accuracy of the die identifications at these points.
- Finally, all die references were amended to consecutive sequences in line with their relative chronology.
- After the constant refining and checking of the die-chart, its integrity becomes obvious and it becomes possible to follow a critical path through the die-chain and see a continuous chronological sequence, with dies revealing progressively greater wear when they are linked with coins later in the die-chain.

Appendix IX Copyright acknowledgements

Most photographic images of coins in the photographic die study are from my own photographs or with the permission of the Celtic Coin Index, Norfolk Historic Environment Service and Chris Rudd. Other photographs and images used within the thesis are mainly mine and from the Celtic Coin Index, others have been used as follows:

1. Figure 2.2 GB E from Brinton, with consent of Norfolk Historic Environment Service
2. Figures II.1 and 2 and Figure 5.2 are with the consent of Dr John Sills
3. Figures 5.18, images taken from Megaw 1989
4. Figure 5.14 with the consent of Cgb.fr
5. Figure 5.19 the image of the Aylesford Bucket is taken from the internet and is the copyright of P.L. Kessler
6. Figure 5.27 the illustrations of the Gallo-Belgic coins are taken directly from Delestrée and Tache (2002)
7. Figure II.22 and the Stater Flan on Figure 4.8 are with the consent of Chris Rudd
8. Figure 6.1 Image from Norfolk Archaeology Unit, copyright of Natasha Hutcheson, permission requested
9. Figure 6.17. The map showing coastline at 2000 BP is with consent of Dr Fraser Sturt
10. Figures 6.18 and 6.19, maps are with the consent of Dr Ian Leins
11. Mapping data contains Ordnance Survey data © Crown copyright and database right 2012
12. Soils data ©Cranfield University (NSRI) and for the Controller of HMSO 2012

Appendix X Hoards

This appendix supplements the information on hoards in Chapter 6 of the thesis. I have not duplicated the comprehensive information given by Philip de Jersey in *Coin Hoards in Iron Age Britain* (2014), but do give additional information and interpretation in respect of some of the hoards and more comprehensive information on those which postdate de Jersey.

Section 1 of the appendix discusses the hoards and site-finds made at Ken Hill in Snettisham and the nearby site of Shernborne. Following this are sections on coinage hoards of early Icenian gold, early silver, denominational period uninscribed gold and finally the late silver of the revolt period. The latter includes a few notes on each of the hoards selected for in-depth study in this thesis; these partly duplicate the work of de Jersey. The appendix ends with section 6 which is composed of brief notes on important hoards which are too poorly recorded to have been analysed in detail within the thesis.

Section 1

Hoards and finds from Ken Hill and Shernborne in the Snettisham area

X.1.1 The Bowl Hoard 1990/1991 (PdeJ 196.6; Stead 1998: 147)

The 'Bowl Hoard' was a vast assemblage of Icenian coinage which was found together with material from neighbouring tribes in a silver bowl at Ken Hill. The find caused a flood of Icenian material onto the market and many coins which were hitherto great rarities, such as Cani Dvro Units and Anted Staters, were subsequently seen regularly. Stead recounts the theft of this vast hoard by 'nighthawks', and its subsequent dispersal. He was informed that the hoard comprised some 6000 mainly silver coins in the silver bowl; below it were 500 gold coins and some ingots. Chadburn's research suggested that there were c. 6600 silver coins in the bowl and c. 90 gold coins below it (2006).

One collector managed to borrow 1135 coins from the hoard, and recorded these at the Celtic Coin Index. These are largely late Units which would be typical of any revolt-period hoard, they included the final dies identified from the die-study. Unfortunately, statistical analysis of this sample is problematic as it was selected to be shown to a collector, and is almost certainly biased. Table X.1 analyses the 1133 Icenian coins in this sample, and compares the mix with the average for the five late hoards which have been studied in detail within this thesis. Much of the sample is similar to the hoard average, but there are more LFH Units and less Anted than normal. The sample from the bowl hoard has few Aesv/Saenv Units, and no Cani Dvro Units, which suggests that these had been extracted from the coins lent to the collector.

	No.	**Mix of hoard**	**Hoard Average**
Ecen	316	27.9%	29.40%
Ece A	87	7.7%	7.92%
Ece B	114	10.1%	10.48%
Aesv/Saenv	3	0.3%	1.97%
LFH	363	32%	22.88%
Anted	155	13.7%	21.66%
Cani Dvro	0	0%	0.30%
BHC	47	4.1%	3.18%
EPHB	12	1.1%	0.67%
Earlier	35	3.1%	1.38%
Other	1	0.1%	0.16%
Iceni	1133	100%	100%

Table X.1. Comparison of coins from Bowl hoard with average late hoard mix

De Jersey, Chadburn (2006: hoard 41), John Sills (records at the CCI) and others have tried to identify additional coins from the hoard and these are listed in PdeJ 196.6. Gold coinage thought to be from the hoard includes six Snettisham Staters but no Plouviez, Irstead or EBH Staters. De Jersey has identified 18 BHB Staters, 20 BHC Staters and 21 Anted, Ecen or Ece Staters that are thought likely to be from the hoard. The Snettisham Staters appear to be an anomaly in what seems to be an assemblage of coins of

late material as are two North Thames Whaddon Chase Staters, also thought to be from the hoard. The hoard seems to have Quarter Staters from the Snettisham Issue onwards with the biggest component being those related to the BHB and BHC Issues.

The gold coinage allegedly included North Thames Cunobelin Staters and Corieltavian Vep Corf Staters. The hoard also appears to have contained many Corieltavian Units and Half Units, and included coins of the final Corieltavian types Latison and Iisvprasv. Philip de Jersey has traced 159 Corieltavian Units which appear to emanate from the hoard, and two Corieltavian Staters (PdeJ 196.6) but only a single North Thames Unit. There is a risk that the records of non-Icenian coinage are biased towards the Corieltauvi because of efforts made to record information by a specialist in North-Eastern coinage.

The unrecorded dispersal of this hoard was a huge loss to research about Icenian coinage. Unfortunately, there is now much confusion about the contents, which makes it impossible to draw more than general conclusions from its known, or assumed, content. The overview of the silver coins known to be from the hoard in Table X.1 suggests that its Icenian silver content is broadly similar to that expected in a revolt period hoard; it is heavily biased towards the final Issues, such as LFH, Ecen and Anted, with a reasonably strong presence of BHC and fewer earlier types.

The gold coinage which is likely to be from the hoard has a broadly similar profile to the Units, after allowing for the reducing minting of gold towards the end of coinage. There are no Staters reported to have been included from the large Irstead and EBH Issues, despite the anomalous presence of a few earlier Snettisham Staters.

X.1.2 Snettisham Hunstanton II (PdeJ 196.7; Chadburn 2006: hoard 45)

This hoard from the early 1990's consisted of 56 Norfolk Wolf Staters and a number of Units. Most information about the hoard derives from a collector, 'B', who borrowed the

Staters from a dealer and photographed them for the Celtic Coin Index; he later recorded an additional 52 Units from the hoard. The collector was informed by the dealer handling the coins that they were not from the Bowl Hoard, coins from which were with dealers at the same time. This information accords with that gained at the time by Chadburn, who reports that this hoard was allegedly found near to the Bowl Hoard 'in the treeline'.

It appears clear that this hoard is not part of the Bowl Hoard as its Staters and most of its Units each form a cohesive group from the early local period; whereas the Bowl Hoard predominantly dates from the final period of coinage. There is a strong likelihood that this hoard also came from Ken Hill, as it seems to have been found by the finders of that hoard and was handled by the same dealers (Chadburn 2006).

Chadburn refers to this hoard as 'Hoard 45 - Hunstanton area II', and suggests that in addition to 56 Staters, there were up to 100 other Iron Age coins, including at least 10 Corieltavian Units.

The coins from the hoard as recorded by B are summarised in Table X.2; those known to be plated are shown in brackets in the analysis but are included in the totals.

	Staters recorded 1995	**Units recorded in 1996**	**Total**
JB A 1	1		1
JB A 8	3		3
JB C 16	30 (19)		30(19)
JB D	3		3
LFA		1(1)	1(1)
LFC		19(28)	19(28)
SU		2	2
IAU		1	1
Total	56	52	108

Table X.2. Snettisham Hunstanton II

The integrity of both batches of coins, and whether or not they were found in the same deposit, is dependent upon the reliability of the information received from a dealer whose motives may have been questionable. This was a time when there was much

official concern at the disappearance of the Bowl Hoard. Chadburn records that 56 Staters, allegedly from Hunstanton II, were impounded at Heathrow Airport, but, subsequently, found not to be treasure trove.

Whilst the 56 Staters appear to accord with all accounts of this hoard, the integrity of the Units is harder to assess. Chadburn recorded that 70 of the 100 Units were her type 'Early Face-Horse 1', which is my LFA, whereas B has only recorded two of these, and 47 of the 52 Units, as LFC. Chadburn makes no reference to the presence in the hoard of three later Snettisham and Irstead Units which were recorded by B. I strongly suspect that most, if not all, of the 49 LFA and LFC Units were from the same hoard, as all are broadly contemporaneous, and there are unusually large proportions of plated examples for each type. The plated coins are either struck from official dies, or from dies that replicate very carefully specific dies without showing obvious signs of hubbing. In many cases it has been difficult to separate plated coins from official examples, and my records of the latter may still include coins which testing would reveal to be plated.

The Units which are alleged to be from the hoard are listed in Table X.3.

Type	No.	Dies	Comments
LFA	2	H:15 plus plated PA:F1	Late LFA dies
LFC	47	19 coins from B,E,G,H,K,L:1, 2,4,5,6,7,9,10,12,13,19 and 28 plated coins	A wide selection of official dies – most plated dies relate to B or C:2
SU	2	J&K:16	
IAU	1	B:2	

Table X.3. Units from Snettisham Hunstanton II

The LFC Units include a full range of dies. The two Snettisham Units and an Irstead Unit, which B recorded from the hoard, appear anomalous. The Snettisham Issue postdates LFC and Irstead is later still; these do not appear to fit with the rest of the alleged Icenian content of the hoard. I think it unlikely that these Units came from the

hoard, particularly as Chadburn had no record of these types being present. It is possible that these three coins were added by a dealer to make the group more interesting to a potential buyer, or that the group represents more than one deposit at Ken Hill; unfortunately more information about this 'hoard' is now unlikely to emerge.

De Jersey has also encountered difficulties in attempting to identify the silver which relates to the hoard and, in addition to coins listed by B, has also included as possible components:

- 1 Bury A
- 5 Uninscribed Corieltavian Boar-Horse Units (ABC 1779 and 1785)
- 1 Uninscribed Corieltavian Wolf-Horse Unit (ABC 1788)
- 2 Corieltavian Inscribed Units – Vep Corf and Avn Cost
- 1 North Thames Half Unit – ABC 2294

The inscribed Corieltavian Units also appear to postdate the hoard; the other material may or may not belong with the LFA and LFC Units attributed to the hoard by B. This additional potential content has been ignored for the purpose of this thesis, but it would change little if the uninscribed coins were to found to be from the hoard.

X.1.3 The Dersingham Bypass hoard (PdeJ 196.8, Chadburn 2006, hoard 40)

This hoard was pieced together by Amanda Chadburn from information given by collectors in the early 1990's, and the evidence is even more tenuous than for Snettisham Hunstanton II. Recorded coins thought to be from the hoard are listed in Table X.4, although Chadburn was told that there were a further three or four JB Staters which were not traced.

Type	No.	Dies	Comments
JB Stater sub-type Cii die-group 16	2	T:57 and U:63	Late dies
Snettisham Quarter Staters	7	4 x A:4, B:4, C:5 and E:14	Full range
Irstead Unit	1	E:6	

Table X.4. Dersingham Bypass hoard – coins recorded at the Celtic Coin Index

This hoard has similarities to the alleged content of Snettisham Hunstanton II, which also had JB Staters from the same die-group, as well as content from the Snettisham Issue and it closes with a single Irstead Unit. Chadburn considered the possibility that this hoard was actually part of Hunstanton II, but she had evidence from two sources that it was a small separate hoard. The coins making up each of the three types in the hoard appear to be cohesive, but the hoard as a whole does not, and like Hunstanton II, looks to be either a constructed assemblage or a group of separate deposits from Ken Hill.

X.1.4 Assemblages from Ken Hill

Two batches of coins have been fully recorded from Ken Hill: in both cases they seem to represent an accumulation of a series of scattered deposits, as well as possible single finds. The first batch emanates from a British Museum excavation project on the site in 1990, and the second from metal detecting activity between 2003 and 2010. The 42 identifiable coins from batch 1 are summarised in Table X.5.

Type		
Gallo-Belgic gold		9
Flat linear potins		5
Corieltauvi gold		3
British A		2
North Thames Clacton Stater		1
Armorican		1
Iceni – JB Staters	17	
– Ingoldisthorpe Quarter	1	
– Bury E	1	
– Snettisham Unit	1	
– BHB Unit	1	21
Total		42

Table X.5. Coins related to 1990 excavations

Table X.6 analyses the JB Staters in batch 1.

Subtype	Die-group	No.	Dies
B	8	5	4 H:16's and a plated 18
Cii	16	3	T with 42,46 and 54 the latter plated
D	18	5	Y:67, AA;75 and 3 BA:71 (2 plated)
Ci	10	1	poor:27
Ci	14	1	S:40
Plated		2	Poor
Total		17	

Table X.6. JB Staters from 1990 Excavations

Most of the remaining coins fall into four groups:

1. Seven of the nine Gallo-Belgic Staters and Quarter Staters are of similar types to the coins in Hoard F (6.2.1), and may be either dispersed material from that hoard or a separate hoard. There are in addition two plated Gallo-Belgic E Staters which postdate the other material, but which may be from the same source.
2. Five Kentish Flat Linear Potins.
3. The two British A Staters, a Clacton Stater and an Ingoldisthorpe Quarter Stater, which are all broadly contemporaneous.
4. 17 JB Staters, these appear likely to be from a single dispersed hoard. 13 of the 15 identifiable coins are either from, or are plated coins based upon, the three late die-groups 8, 16 and 18. The five coins from, or based on, die-group 18 of sub-type D include very late coins in the JB sequence.

The second batch of 162 identifiable coins from metal detecting on the site are shown in Table X.7.

Icenian	96
Other LIA British	49
Gallo-Belgic	11
Greek	5
Pre-revolt Roman	1
Total	162

Table X.7. LIA coinage from Ken Hill, Snettisham 2003–2010

Groupings of non-Icenian deposits included in this batch comprise:

- 10 Gallo-Belgic D Quarter Staters which are discussed in 6.2.1.
- 2 late third or early fourth century BC coins from Carthage, one of which may have been minted in Sicily. These two coins are of a type which is a prototype for the Icenian Unit LFC, and they are discussed and illustrated in 5.4.2.
- 37 Thurrock type Potins.
- 6 North Thames Clacton Quarter Staters.

The Icenian coinage is summarised in Table X.8 with plated coins shown in brackets.

Issues or types	**Stater**	**Quarter Stater**	**Unit**	**Half Unit**	**Total**
JB	5				5
Bury A			5		5
Bury B			4		4
Bury D			1		1
LFC			6		6
Snettisham		2	1	1	4
Saham Toney			3		3
Plouviez			3		3
Irstead	1	(1)			1(1)
EBH			2		2
EPH(A)			1		1
EPH(B)				1(1)	1(1)
BHB			9	2(1)	11(1)
BHC			1		1
Anted			11	1	12
LFH			4(1)		4(1)
Ecen			21(2)		21(2)
Ece A			1		1
Ece B			2		2
Poor late			2		2
Total	6	2(1)	77(3)	5(2)	90(6)

Table X.8. Icenian coinage in batch 2

There is a much broader range of Icenian coinage in batch 2 than in batch 1 and the groupings of these coins which may have come from discrete deposits are as follows:

- 5 JB Staters which are from dies T:59 and U:59 of die-group 16 (sub-type Cii), and dies V:65, Y:68 and BA:76 of sub-type D. This is a group struck by late dies from these two sub-types which are found together in many JB hoards. The absence of Staters from die-group 8 makes it unlikely that these coins are from the same hoard as those from the 1990 excavations, as discussed above.
- 16 coins are present from the early local period, 5 Bury A's, 4 Bury B's, 6 LFC's, 4 of which are tightly die-linked, and 1 Bury D. There are no other types of Unit from the same period and only a single example of the large, ensuing issue of Snettisham Units. This group probably comes from one or two separate deposits.
- 9 BHB Units, there is only one example of the subsequent larger issue of BHC Units.
- The largest component is 41 of the final Icenian types: 21 Ecen Units but only 11 Anted, 4 LFH, 2 Ece B, 1 Ece A and 2 unidentified. This study has found that these late Units occur in revolt period hoards in relatively standard ratios (6.5.1). The numbers of Anted and LFH Units are usually similar and those of Ecen about 50% higher. This implies that the late Units in this sample are not from a typical revolt period hoard. There were no Units of this period found in batch 1.

Finds at Shernborne

A field in Shernborne has started to yield assemblages of coinages that appear to be made up of a series of separate deposits. The hoard Shernborne A (Table X.9) was found in the same field a hundred metres or so to the east in the late 1980's.

X.1.5 Shernborne A (PdeJ 195)

Type	Batch 1 No. and dies	Batch 2 No. and dies
JB Ci die-group 11	1 N:28	
JB Cii die-group 16	18 T,U: 51,52,54,57,58,61	14 T,U:51,54,56,57,58,60,61,62
JB D die-group 17	1 W:65	1 X:66
JB D die-group 18	6 Y,AA,BA:68,70,71,73	3 AA,BA:71,72,75
SS die-group 1	4 B,C:3,4	5 A,B,D:1,2,3,4
SS die-group 2	8 F,G:8,9,11,16	10 F,G:8,9,10,11
SS pair E:7	1 poor:7	
SS die-group 3		2 H:13,15
Early SQ		1 B:2
SQ	3 A,B:1,4	10 A,B,C,D,E:3,4,5,6,9,10A
SU	1 H:15	2 E:10 and H:15
Total	43	48

Table X.9. Shernborne A hoard

This hoard was recovered in two batches over two or three years, from a focussed area in the field. It is not known if the second batch is part of the same hoard as the first, or if there were two deposits. The content of the batches are very similar, but the latest coins are from the Snettisham Issue, and the Quarter Staters and Staters in batch 1 appear to close earlier than those in batch 2. The die-groups of the Snettisham Stater appear to follow a chronological sequence (III.1), there are no coins from the final die-group 3 in batch 1, whereas there are two in batch 2. Similarly, and more convincingly, there are only three Snettisham Quarter Staters in batch 1, which are all very early, whereas later dies are included in batch 2 (although not the final seven dies some of which may well have been minted as part of the ensuing Plouviez Issue (III.3)).

X.1.6 Shernborne B

50 identifiable coins have emerged in three batches during 2014 from a rectangular area of some 170m x 200m in the same field as the earlier hoard, but some 250m to the west. The coins range from very early Icenian through to early post-conquest Roman coinage; the

finds are clearly not a single hoard, and appear to be an assemblage formed of several separate deposits covering a period from, say, 40–30 BC through to the post-conquest period.

There are a small number of groupings that are likely to represent separate deposits.

1 JB Staters

5 JB Staters from die-group 18 of sub-type D, one each from dies Y:67 and Z:75, and three from dies BA:71. There are also 2 plated Staters, one of which is clearly based on a die-group 18 die, and the other is from, or based on, dies T:43 from die-group 16 of sub-type C. This group is similar to the Brettenham hoard discussed above, which also comprised 'official' coins from die-group 18 and a plated Stater from die-group 16.

A plated North-Eastern South Ferriby Stater has also been found, which may belong to this group.

2 Quarter Staters

The assemblage includes the unusual group of Quarter Staters shown in Table X.10.

Type of Quarter Stater	No.	Dies
Snettisham	12	A:1,A:2,A:4,B:4,B:4,C:5,C:5,C:5,D:6,E:10,E:11A,E:14
Irstead	8	B:1,E:5,F:6,G:8,G:8,G:8,G:13,H;13
BHB	2	A:1,B:1

Table X.10. Quarter Staters from Shernborne B

The 22 Quarter Staters include an example from every Snettisham obverse die and from all subsequent periods of Irstead Quarter Stater production.

3 Early local silver

The assemblage includes a group of early Units, which may be from a single deposit (Table X.11)

Type	No.	Dies
Bury A	1	D:7
Bury B	4	B:1,D:9,D:11,F:18
LFA	1	C:3A
LFC	1	C:2

Table X.11. Early local silver from Shernborne B

The most clearly cohesive element of this group is the four Bury B Units, two of which are die-linked.

Other finds

The remaining material comprises 8 later Icenian Units, which do not appear to be a single deposit, a BHB Stater and Roman Republican Denarius, 2 post-conquest Denarii from AD 69 and a late 1st century Roman bronze of Nerva.

Section 2

X.2 Hoards that are predominantly composed of JA and JB Staters

JA Staters

X.2.1 Sculthorpe

Found in 2015 this hoard postdates de Jersey's corpus. The hoard contained 11 JA Staters, 9 GB E Staters and 4 Bury C Units, the latter being extremely corroded. It is uncommon to find a mixture of denominations in a hoard, but Andrew Rogerson confirmed that all 24 coins were found within a five metre wide area, and that the four corroded Units were '100% mixed in' with the Staters (pers. comm.).

The JA Staters were from dies C:1, D:1 (2), F:4(3), F:5, G:5, H:6 and J:1 (2) with weights in grams 6.2, 6.16, 6.23, 6.16, 6.21, 6.28, 6.15, 6.15, 6.12, 5.99 and 6.2 respectively.

Eight of the GB E's are from classes 2 or 3, with the following weights in grams: 6.16, 6.16, 6.19, 6.21, 6.21, 6.21, 6.22 and 6.26. The class of the heaviest GB E, weighing 6.34g, was not determined.

The four Bury C Units were all badly corroded, but at least three, possibly all, appear to be struck from reverse die 3. Weights in grams are 0.92, 1.21, 1.26 and 1.26.

X.2.2 Heacham II (not in de Jersey)

I understand that coins have been found from this hoard in the Heacham area of North Norfolk over a number of recent years. I have obtained photographs of three coins which are allegedly from the hoard, two JA Staters and a GB E Stater, but other Staters, mainly GB E's, are said to have been found at the same undisclosed site. Both JA's are from die-group 1 dies D:1 and H:25, and the GB E appears to be from class 1 or possibly early class 2.

X.2.3 Hoard M (not in de Jersey)

5 coins have been identified as being from a hoard of 6 coins alleged to have been found in the Snettisham area, c. 2002. These are identified in the database as 02CL2, 02CL3, 03 1148, 04 0535 and 02 VH3. All are die-linked and from die-group 5 dies N, P, 19 and 22.

X.2.4 Hoard N (not in de Jersey)

Four coins which were on the market in 2009, which are all from die-group 5 dies M:14 (in database as TX 4–7).

Hoard of JB Staters or early Snettisham types

X.2.5 Ashby St Mary hoard (postdates de Jersey)

This hoard contained 44 JB Staters, including one which is plated, and was discovered in 2013 by metal detectorists in two separate batches, thought to be some 30 metres apart; the exact distance is uncertain as an accurate GPS measurement was only made of the second site (Adrian Marsden pers. comm.).

The official coins from both batches form two tightly die linked sequences, the majority from die-group 8 of sub-type B and the remainder from die-group 16 of sub-type C. The latter is spread across a greater number of reverse dies, but there is only one obverse die represented from each die-group.

The hoard contained a new reverse die (18A) from die-group 8 and only the second known example of die 44 from die-group 16. An analysis of the hoard content is in Table X.12.

JB Dies	Batch 1	Batch 2	Total
H 16	5	14	19
H 18	4	5	9
H 18A	0	1	1
H 20	3	2	5
Sub-total – die-group 8	12	22	34
T 43	0	3	3
T 44	0	1	1
T 48	0	1	1
T 54	0	1	1
T 57	1	1	2
T 59	0	1	1
Sub-total – die-group 16	1	8	9
Plated (poor:20)	0	1	1
Total	13	31	44

Table X.12 Analysis of Ashby St Mary hoard

The two batches are broadly similar, although, proportionately, batch 1 has more of the later coins from die-group 8 and batch 2, more die-group 16 coins.

The coin recorded as plated (reference AsM 16) is either highly debased or a core. The obverse die used to strike this coin is unidentifiable, but the reverse appears to be from die 20 with no obvious signs of it being hubbed.

The relative chronology of dies from die-group 8 is clear from the die-study, and they are numbered in chronological order. The coins from the hoard reveal how later strikes showed a decline in average weight, as shown in Table X.13 (the statistics exclude two broken coins, AsM 3 and 33, and the plated coin AsM 16).

Die combination	Sample size	Average weight
F : 16	17	5.53g
F : 18	9	5.06g
F : 20	4	4.95g

Table X.13 Average weight of JB die-combinations from die-group 8

X.2.6 Lochdales 2007 hoard (PdeJ 305)

This is a group of closely die-linked JB Staters from dies H and J and 18, 19, 20 and 21 of die-group 8, which were sold at a Lochdales auction in 2007. I originally identified nine from the auction catalogue and de Jersey recorded an additional three Staters from the sale, these are listed in Table X.14, these are not in the database but are included in the table of hoards.

Reference	Weight	Die-group	Dies
08 8228	4.7g	8	H:19
08 8238	5.7g	8	H:18
08 8239	5.3g	8	H:18

Table X.14 Additional coins from Lochdales hoard

Attempts to obtain information about the provenance of the coins were unsuccessful.

X.2.7 Beccles (not in de Jersey)

A dealer has indicated that the three JB Staters in Table X.15 were found at the same site a few miles outside Beccles.

Reference	Weight	JB Die-group	Dies
05 0230	Unknown	1	A:3
05 0768	Unknown	11	N:28
1257	5.86	1	A:4

Table X.15 Beccles hoard

X.2.8 Brettenham (PdeJ 175, part)

The four JB Staters in Table X.16 were recorded from Brettenham in 1986 and 1987; the three official Staters are die-linked. This group appears to be a small hoard.

Reference	Weight	Die-group	Dies
86 0202	4.47	18	BA:76
86 0204	5.34	18	Poor:77
87 0524	Unknown	18	BA:71
86 0200	4.21	Plated – as 16	(T:54)

Table X.16 Likely Brettenham hoard

X.2.9 Hoard D (not in de Jersey)

Table X.17 lists a group of five Staters recorded at the Celtic Coin Index in 1995 and 1996 which are thought to be from a hoard; there is no information as to provenance.

Reference	Weight	Die-group	Dies
95 3158	Unknown	17	V:65
95 3159	Unknown	16	Poor:51
95 3160	Unknown	16	Poor:63
96 1623	Unknown	18	BA:71
96 1624	Unknown	Recorded as plated but looks like die-group 18	poor

Table X.17 Hoard D

X.2.10 Heacham (PdeJ 185)

This is an important hoard of 28 Staters found from 1991 to 1996 (Table X.18). The hoard is predominantly composed of JB Staters from sub-type Cii (die-group 16) and sub-type D (die-groups 17 and 18). The sub-type Cii content is weighted towards the end of the die-group; there are no examples in the hoard of the earliest nine dies, and the sample includes the last reverse die of the die-group. The content from die-group 18 is more evenly spread but also includes an example from the last reverse die. The earlier content in the hoard comprises three early JB Staters and a JA Stater. The hoard includes three Snettisham Staters struck by very early dies of that type, indicating that the hoard closed shortly after the transition from JB to the Snettisham type.

Type of Stater	Die-group	No.	Dies
JA	1	1	H:6
JB A	1 and 4	2	A:3 and D:11
JB Ci	11	1	M:28
JB Cii	16	15	T,U:51,57,60,64
JB D	17	1	X:66
JB D	18	4	Y,AA,BA:67,71,73,77
JB Plated	Similar to 16	1	F1:R6
Snettisham	1	3	A:1&3

Table X.18 Heacham hoard

Section 3

X.3 Early local silver hoards

X.3.1 Barham 'Hoard' (PdeJ 225)

Type	No.	Dies	Batch 1	Batch 2	Separate
Bury A die-group 2	2	C:4, E:3a		C:4	E:3a
Bury C die-group 2	2	C:11, F:4	C:11		F:4
Bury C die-group 3	4	2 x H:7, 2 x H:8	H:7, H:8	H:7, H:8	
NT Quarter Stater	1	ABC 2231	ABC 2231		

Table X.19 Contents of Barham Hoard

This group was found scattered in a large field between 1990 and 1996 (De Jersey and Newman 1997), with a further record from 2003 (Table X.19). There is no certainty that the Bury Units are a single deposit as they were found in two batches and two single finds over a four hectare area, with each of the two batches being found scattered within an area of one hectare. The association of North Thames Quarter Stater with the Bury coins is only described as 'possible', although it is probably contemporary with the Icenian coins.

X.3.2 Nettlestead Hoard (PdeJ 236)

Type	No.	Dies	Comments
Bury A die-group 1	1	A:13	
Bury A main die-group	4	D:6, E:7(2), F:3	die-linked
Bury C	1	C:3	

Table X.20 Content of Nettlestead hoard

The four coins from Nettlestead are from a similar period to those found at Barham except that Bury A predominates in this group rather than Bury C.

X.3.3 Santon Downham (not in de Jersey)

This hoard (Table X.21) was found as a result of forestry operations near Santon Downham, according to information provided by a dealer.

Type	No.	Dies
Bury A unlinked pair	2	J:11
Bury C	1	B:2
Bury B	1	E:21

Table X.21 Possible hoard from Santon Downham

It is possible that a Saham Toney Unit (K1012) from dies B:3 may emanate from the same find based on information from the dealer, although this type is likely to be significantly later than the Bury types.

Section 4

X.4 Hoards of uninscribed denominational gold coinage

X.4.1 Runhall (postdates de Jersey)

There have been two batches of Staters found in 2014 and further finds are likely to be made (Table X.22). The hoard postdates the closing of the database.

Type of Stater	Die-group	No.	Dies
JB plated	Based on die-group 1	1	Similar to dies A:4
SS	2 & 3	3	F:8 and poor:15
Plouviez	Not applicable	5	B,C,D:4,9,11,13

Table X.22 Runhall hoard

This small hoard appears to close towards the end of production of the Plouviez Stater. The first three dies are not included and there are three Snettisham Staters all from the later die-groups of that type. The hoard could be interpreted as suggesting an overlap between late Snettisham and early Plouviez, but numbers of coins are very low, and later recoveries may well reveal examples of the earlier Plouviez Staters.

X.4.2 'Hoard A' (PdeJ 198 as 'Swaffham' hoard)

A hoard of over 50 Staters is understood to have been found in the mid-1990's (Philip de Jersey and other sources, pers. comm.) and dispersed without being declared. The CCI recorded 30 coins which appeared in the trade at this time, and are likely to be from this hoard. These include a full range of Irstead Staters and 10 of the 14 EBH reverse dies, including the very late die 14 in combination with the scarce obverse die C. No BHB Staters were recorded from the hoard. De Jersey discusses the potential locations for the hoard, which were rumoured to have been Thetford or Swaffham; he identifies another 14 Icenian Staters that may be from the hoard (none of which would change its profile). He also discusses rumours that it included Staters of Addedomarus of which there were

unusual numbers on the market at the same time as Hoard A, although there was no evidence that they were from the same source. It is possible that the attempt to link the North Thames Staters to Hoard A may have been an attempt to divert attention from a second undeclared hoard.

X.4.3 Freckenham (PdeJ 230)

This hoard was first described by Montagu in 1886, the year after its reported discovery. Initial reports suggested that it comprised 84 coins, and while Montagu only catalogued that number, he thought that the actual total may have exceeded 90.

The database includes 52 coins which emanate from the hoard. Montagu's excellent descriptions of the coins enabled Ian Leins (Talbot and Leins 2011) to use my die-charts, which form part of Appendix I of this thesis, to allocate those coins that can no longer be traced to a small number of possible dies of specific types.

EBH Staters dominate the hoard with nine of the 14 known reverse dies represented in the 28 coins of which there is a photographic record. Montagu did not describe the distinctive obverse dies C and D in his thorough written observations on the varieties in the hoard, and neither they nor the final EBH reverse dies 13 and 14 are represented amongst those coins for which there is a photographic record. The early BHB Stater dies A:3 and B:4 are the only examples of the type to have been traced to the hoard, the B:4 being a very early strike from die B predating most B:3 strikes. Die 1 is scarce seeming to have developed an early flaw at the base of the rear foreleg.

The presence of early BHB Staters and the absence of the final EBH dies implies that there may have been a short overlap in the production of these two types. This appears unlikely in view of the content of 'Hoard A' and Sustead: both include die 14 of EBH, but only a single, very early, BHB Stater from dies B:2 between the two hoards.

X.4.4 Sustead (previously known as North Norfolk) – PdeJ 197

This hoard is an accumulation of nine Staters found at Sustead in North Norfolk that seems likely to be a scattered hoard. The small group of Staters has a similar profile to Hoard A and Freckenham with EBH being the dominant coin. The hoard closes with a single BHB Stater from the early dies B:2, and also includes a late EBH Stater from dies B:14. Two further Staters were recorded from the village in 2011 (EBH dies B:12 and Plouviez dies E:11), which may be from the same hoard, and which do not significantly change its profile.

X.4.5 Dallinghoo (originally recorded as Wickham Market) – PdeJ 227

The hoard found in 2008 was reported fully in Talbot and Leins (2010), its 840 Staters making it the largest fully recorded hoard of British Iron Age gold coinage found modern times.

The hoard vastly increased the number of known Icenian Staters from this period of coinage but did not have a corresponding effect on the number of known dies, as Table X.23 and Table X.24, taken from the 2010 paper, illustrate.

Type	Previous no. known	No. in Dalinghoo hoard	Dalinghoo as % of total known coins
Snettisham	69	5	7%
Plouviez	21	55	72%
Irstead	55	188	77%
EBH	112	221	66%
BHB	88	366	81%
BHC	50	0	0%
Total	395	835	68%

Table X.23 Dallinghoo hoard content as a percentage of total known examples

Type	Total known dies		Dies represented in Dalinghoo		Dies unique to Dalinghoo		Dies missing from Dalinghoo	
	Obv.	**Rev.**	**Obv.**	**Rev.**	**Obv.**	**Rev.**	**Obv.**	**Rev.**
Snettisham	8	17	2	4	0	1	6	13
Plouviez	6	13	6	11	2	4	0	2
Irstead	7	11	7	10	0	1	0	1
EBH	4	14	4	14	1	0	0	0
BHB	17	16	14	13	3	2	3	3
Total	42	71	33	52	6	8	9	19

Table X.24 Numbers of known dies showing the modest impact of the Dallinghoo hoard

The hoard appears to have closed shortly before the end of the production of the BHB Stater and prior to the introduction of BHC. The final BHB Stater dies R and S, and 15 and16, are omitted from the hoard as are Q and 14, which are the final dies of sub-type BHB(A). All known EBH dies were represented in the hoard, as were all but one of the known Irstead dies. The single Irstead die missing is die 6, this is known from only one example and was probably short-lived.

The hoard included five uninscribed Corieltavian Staters. All are varieties of the so-called ‘Ferriby’ type, but include a number of the more unusual sub-types within this coinage. One is of Van Arsdell’s ‘Sunflower type’ (ABC 1737), probably one of the earliest of the Ferriby types. There are two regular Ferriby Staters (ABC 1743), one of the ‘Wheel Type’ (ABC 1749) and one of Van Arsdell’s ‘Transitional type three’ Staters (ABC 1752).

X.4.6 Little Saxham – PdeJ 235

A scattered group of seven Staters was found by a metal detectorist near Little Saxham in Suffolk between January 1990 and May 1996. There were two other coins found, an Irstead Quarter Stater and an Anted Unit, but these were distant from the nearest Stater and are likely to be unconnected to the other coins. The single Irstead Stater in the group is from late dies E:9 and the only BHB Stater in the group is from dies J:10, which is

towards the end of the main BHB sequence. The remaining coins are all BHC Staters, making this the last of the known uninscribed Stater hoards to close.

Section 5

X.5 The late hoards of silver coinage

The late hoards selected for detailed analysis are listed below together with brief notes on the circumstances of discovery.

X.5.1 Field Baulk (PdeJ 20)

Found with their container, a globular Iron Age beaker, by a farmer near to March, Cambridgeshire, were 872 Icenian Units. The hoard was discovered in 1982, and the pot has been dated to AD 60–70 (Potter 1996: 45–8). There are no unexpected types in the hoard, which is the largest of the late hoards to have been fully recorded.

X.5.2 Lakenheath (Briscoe 1959; PdeJ 234)

Found in a ‘pre-invasion’ style pot in 1959, certain coins were outside but these appear to have spilt from an earlier breakage. The hoard contained 410 Icenian Units (there are minor inconsistencies in previous accounts of the exact numbers). In addition to the Units there was an Anted Stater and two Cunobelin Staters of Classic A type (Allen 1975: 135 and 143 and Plate V). The hoard included 41 Republican Denarii, the earliest of which was issued in 102 BC, and 26 imperial coins, the latest of which were two coins of Caligula, both from AD 34.

X.5.3 Fring (Chadburn 1990; PdeJ 182)

These coins were found in 1990 by a metal-detectorist after ‘sub-soiling’; the coins are clearly from a single deposit, and were found with the remains of a wheel-made cup or

bowl of a ‘Belgic’ style similar to others found in Roman assemblages in Norfolk, and also with fragments of textile. The original 153 Icenian Units found as a hoard has increased to 173 as a result of subsequent recoveries from the same findspot. PdeJ records a further three batches of coins totalling 28 Units, of which there are no photographic records; these have not been included in the detailed analysis.

X.5.4 Honingham (Clarke 1957; PdeJ 186)

This hoard was originally contained in a small pot which seems likely to have been broken during the first deep ploughing of the land in 1953. The base of the pot, still containing 100 coins, was discovered the following year by the farmer hoeing his sugar-beet; the balance of the hoard and some of the pot was found, subsequently, in the topsoil. The pot was identified as a well-known type of butt-beaker dated in the 1950’s to AD 10–61. There are records of 344 Icenian Units from the hoard, including three coins found on the site in 1988 and 1989. In addition to the usual late Icenian Units, the hoard contained a Saham Toney Unit.

X.5.5 Eriswell (Kent 1984; PdeJ 228)

A mixed hoard of 255 Icenian coins, 45 Republican Denarii and 27 Imperial Denarii, which were found on a building site in Suffolk in 1972. The latest Imperial Denarius is of Nero, from AD 54–55. The authors considered the condition of the latest Icenian to be worse than the latest Roman, suggesting that the minting of Icenian coinage ceased well before the revolt of AD 60, however from a review of photographs of the hoard the Icenian coins appear uncirculated.

Other important late Icenian hoards are summarised below.

X.5.6 Scole (Burnett 1986; PdeJ 193)

This was a mixed hoard of 202 Icenian coins, 49 Republican and 38 Imperial Denarii found on a building site at Scole, Norfolk, in 1982/3. The latest Denarius was a coin of Nero of AD 60 or 61. Initially 142 coins were found, and the remainder were found nearby or extracted from the builder's spoil-heap. It appeared, from plotting the locations of each find, that the Icenian and the Roman coins had been well mixed. Unfortunately, the hoard was dispersed after examination at the British Museum, and there is no full photographic record of its contents.

X.5.7 Forncett St Peter (Chadburn 2006; PdeJ 181)

The Forncett hoard was found in 1996/7 and was recorded as comprising 336 Icenian units and 45 Roman Denarii from the Republic to Emperor Tiberius. The hoard has not been included in my detailed analysis, as I only found photographs of 112 of the Icenian coins, and therefore could not carry out a comprehensive die-study. The 112 coins appeared to be typical of a late hoard, with the earliest coin being a Snettisham Unit (CCI 00 0519). There is confusion over the number and precise identification of the Icenian coins, as the hoard was disclaimed and returned to its finders before it was fully-recorded. Later recoveries of Roman coins from the site are discussed in 6.5.2.

X.5.8 Joist Fen (Briscoe 1964; PdeJ 232)

A scattered group of Icenian and some Roman coins were recovered over an extended period from the late 1950's. Philip de Jersey records the confusion over the total number of coins that have emerged from Joist Fen. 41 Icenian coins are recorded in the CCI, and Allen (1970: 18) records 34 Roman coins. Combining de Jersey's research at the Fitzwilliam Museum with a few extra records that I have found in the papers of the collector Henry Mossop, has increased the number of identifiable Icenian coins to 65, but

de Jersey's work indicates that many additional unrecorded coins were found. There is no certainty that these coins either came from a single hoard or even that they were found on the same fen island (Briscoe 1964: 124). Briscoe records that at the Treasure Trove inquest they were described as a 'collection of strays' and that certain of the coins were recovered from farm workers who had found them in previous years.

The Icenian coins are particularly important because they include the only EsvPrasto coins known to have been found in association with other coins, and also because the latest Roman Denarius is from the reign of Nero dated AD57–8 (PdeJ 232).

Despite the uncertainties, it is clear that at least some of the coins are from a mixed Iceni and Roman hoard, as Briscoe notes that one of the Icenian coins was found attached to a Roman Denarius. It seems likely that the very rare EsvPrasto coins, of which 11 were eventually recovered, were from a single deposit which must have contained at least some of the Roman coinage, since de Jersey refers to a statement by a Mr Morley, who metal detected the area into the 1980's, that an EsvPrasto Unit had been found attached to a Denarius of Juba. It is unclear if these are the same two coins referred to by Briscoe. Despite the intense metal detecting of sites in East Anglia, this single group still accounts for 65% of all known EsvPrasto coins.

There are two elements of the Joist Fen assemblage which are not found in other Boudiccan revolt hoards: the EsvPrasto Units and at least six Half Units. The former have never been found in another such hoard and the only well-recorded example of the latter are two Half Units amongst the 350 coins in the Wimblington hoard. The remaining Icenian coins are similar to the content of typical revolt hoard as shown in Table X.25; the column to the extreme right shows the mix of the Joist Fen coins, excluding the EsvPrasto Units and the Half Units, and the previous column, the mix of an average hoard.

	Joist Fen coins	%	Hoard Average	JF adjusted
Ecen	15	23.1%	29.40%	31.3%
Ece A	3	4.6%	7.92%	6.3%
Ece B	7	10.8%	10.48%	14.6%
AES/SA	1	1.5%	1.97%	2.1%
LFH	9	13.9%	22.88%	18.8%
Anted	8	12.3%	21.66%	16.7%
BHCD	1	1.5%	0.30%	2.1%
BHC	2	3.1%	3.18%	4.2%
EPHB	1	1.5%	0.67%	2.1%
Earlier	1	1.5%	1.38%	2.1%
EsvPrasto	11	16.9%		
BH Half	1	1.5%		
PH Half	5	7.7%		
Other			0.16%	
Iceni	65	100%	100%	100%

Table X.25. Comparison of Joist fen coins to average hoard content

The Denarius of Nero implies that the Joist Fen hoard, or hoards, was deposited at the time of the Boudican revolt. The EsvPrasto Unit apparently having been attached to a Denarius implies that the EsvPrasto Units were part of a single hoard with the other Units, although it is conceivable that there were several hoards close together as found at Hallaton (Score 2011). The additional anomaly of the Half Units adds further confusion to the picture, and I suspect that these were stray finds; one of the Half Units is from the BHB Issue and may be the earliest coin present.

X.5.9 General Observations

Although the Forncett, Joist Fen and the Bowl Hoards could not be included in the detailed study, I examined available coins which, as shown in Table X.26, all included examples struck from very late dies. This implies that these hoards all closed after coinage production ceased and that they probably date to the Boudiccan revolt.

Late dies/hoard		Bowl	Forncett	Joist Fen
Type	Die	Present	Present	Present
Ecen	P	Yes	Yes	
Symbol	Y	Yes	Yes	
Ecen 2	U	Yes	Yes	
Ece A	G	Yes	Yes	
Ece B	E	Yes	Yes (hd B)	Yes
Aesv/Sae	A	Yes	Yes	Yes
LFH	84	Yes	Yes (hd B)	Yes
Anted	L	Yes	Yes	

Table X.26 The presence of late dies in partially documented major hoards

X.5.10 Mattishall (PdeJ 188)

An interesting group of coins were found in 2009–10 at Mattishall in Norfolk. The group consisted of 15 Icenian Units and 23 Denarii. The Roman coins would be typical of the Roman content of revolt-period hoards, closing with a Denarius of Claudius from AD 51–2, if it were not for a Denarius of Trajan AD 114–7 which was found with them (Portable Antiquities Scheme reference NMS-62D0F5). The related notes indicated that the distribution of the finds suggested a single scattered hoard, but discussions with Norfolk Archaeology Service confirmed that the Denarius of Trajan cannot be definitively associated with the other coins and could be a stray (pers. comm.). The Icenian coins are shown in Table X.27 with the average content of late hoards.

	Mattishall	mix	Hoard Average	North Creek	mix
Ecen	5	33.3%	29.40%	8	21.6%
Ece A	2	13.3%	7.92%	5	13.5%
Ece B	3	20%	10.48%	3	8.1%
AES/SA			1.97%		
LFH	2	13.3%	22.88%	11	29.7%
Anted	1	6.7%	21.66%	2	5.4%
BHCD			0.30%	1	2.7%
BHC	1	6.7%	3.18%	5	13.5%
EPHB			0.67%	1	2.7%
Earlier	1	6.7%	1.38%	1	2.7%
Other			0.16%		
Iceni	15	100%	100%	37	100%

Table X.27 The mixes of Mattishall, North Creek and an average late hoard

Mattishall does not appear typical of a revolt hoard: it has too few Anted Units and too many Ece A and Ece B Units, but the difference is of limited statistical significance because of the small sample size.

Section 6

X.6

Brief notes on other hoards that are too small or poorly recorded to add new information, are as follows:

- East Dereham or Swanton Morley (PdeJ 178) 1995, 4 Units (2 Anted, 1 Ece A and 1 Ece B) found with four Denarii to Tiberius 36–7AD.
- North Creek (PdeJ 189) 37 late and mid denominational period Units, plus a Republican and an unidentified Denarius. The mix of North Creek is shown in Table X.27; it does not appear typical of a late hoard, having too many BHC Units and not enough Anted, but the sample size is very small.
- Norton sub-course (PdeJ 190) 113 Denarii closing with Claudius AD 41–2, 2 Icenian Units, BHC and Ecen, and an unidentifiable bronze coin. The coins

were found in a very disturbed state and it is not possible to be sure that the Iron Age coins are associated with the Denarii.

- Weston Longville (PdeJ 203) a poorly recorded hoard found in the 19th century of some 200–300 Icenian coins and 3 Republican Denarii the latest of which is 32–3 BC. The 53 identifiable coins from the hoard are all late Icenian issues typical of revolt-period hoards.
- West Runton (PdeJ 204) two or possibly three Irstead and EBH Staters from what may be a larger hoard found following a cliff fall in c. 1994.
- Eye, Suffolk (PdeJ 229) 65 coins listed by PdeJ include 8 Bury A's as well as 5 LFA's and a range of later material, including late Units typical of a revolt period hoard. The coins include 3 Cunobelin Bronze Units and 2 Roman coins (a Republican Denarius and an As of Augustus). The coins do not appear to be a single hoard and, as de Jersey suggests, this assemblage has more of the features of a complex settlement site, possibly including two or more small hoards.
- Santon Downham (PdeJ 239) a typical revolt-period hoard originally consisting of 107 late Icenian coins, of which PdeJ has traced 53. The earliest is a BHB Unit and the hoard also contained 2 Asses of Claudius, AD 41–4.
- Littleport or Apes Hall (PdeJ 17) An unusual record of c. 86 coins from an 'undeclared hoard' including mid and late Icenian Units, 6 Icenian Half Units, 33 North-Eastern uninscribed Units and Half Units, 4 Cunobelin Staters, 1 Cunobelin Bronze and 17 Denarii to Tiberius c. AD 35. Highly unlikely to be a single hoard, and probably includes a site assemblage.
- March (PdeJ 18) 40–50 Icenian coins found in an 'earthen vessel' in about 1838. This has all the features of a revolt-period hoard although few coins can

be traced. The earliest coin in the hoard seems to have been a rare Irstead B Unit (CCI 68 1096), now in the British Museum.

- Wimblington (PdeJ 23) some 300–350 coins found c. 1904, of which 54 can now be identified. The coins are generally typical of a revolt-period hoard, with the earliest coins being a Snettisham Unit and an Irstead Unit; an unusual feature of the hoard is that it contained 2 Ecen Half Units.

Appendix XI Concordance

Per thesis	Den.	ABC	VA	BMC
Den.=denomination S, QS, U, HU=Stater, Quarter Stater, Unit or Half Unit				
Ingoldisthorpe	S	2421, 2424		
Ingoldisthorpe	QS	2448		
JA	S	1393	610-1	212–16
JA	QS	1459		
JB	S	1396, 1399	610-2 and 3	217–78
Bury A	U	1495	80	3524–7
Bury C	U	1498		3528–32
Bury B	U	1501		3533–5
Bury D	U	1516		
Bury E	U	1519		
Bury F	U	1513	81	
Bury G	U	1528		
Bury H	U	-		
Bury Pallas	HU	1597		
Bury face horse	HU	1504		
Bury Butterfly	HU	1594		
LFA	U	1522		3548–9
LFC	U	1525		3550–1
LFB I	U	1510		
LFB II	U			
LFB III	U	1507		387
LFB	HU			
Irstead B	QS	1468		
Irstead B	U	1540, 1543	665-1	3536, 3537, 3547
Bury	QS			
Mildenhall	QS	1486, 1489		370
Mildenhall	HU			
Spiral	U			
Snettisham	S	1402, 1405, 1408, 1411	1505-1	3353–83
Early Snettisham	QS	1465		3435
Snettisham	QS	1462		3422–34
Snettisham	U	1531	665-7, 665-9	3541–5
Snettisham and Plouviez	HU	1603, 1618		3789
Plouviez	S	1414, 1417, 1420	624	3390–5, 3399
Plouviez	U			3539, 3546
Irstead	S	1423	626-1	3396–8, 3400–4
Irstead	QS	1480		3437–8
Irstead A	U	1534, 1537	665-3	3538
Irstead	HU			

Per thesis	Den.	ABC	VA	BMC
EBH	S	1426, 1429, 1432, 1435, 1438	626-4, 626-7, 626-9, 626-12	3405–19
EBH	U	1570, 1573		3440–4
EBH	HU	1615		3787–8
BHB I	S	1444, 1447	620-7, 620-9	3386–9
BHB II	S	1441	620-1	3384–5
BHB	QS	1471, 1474	628	3436
BHB	U	1579	657	3455–72
BHB	HU	1621		3513–6
BHB(A)	U	1576	655	3445–54
BHB(A)	HU	1612	681	3777–8
BHC	S	1450	620-4	3385
BHC	QS	1477		
BHC	U	1582, 1585	659	3473–511
BHC	HU	1624	661	3517–20
Cani Dvro	U	1630	663	3521–3
Anted SIA	U	1633		4581
Anted SIA	HU	1636		
Anted	S	1639	705	3790
Anted	U	1642, 1645	710, 711, 715	3791–4027
Anted	HU	1648	720	4028–31
Ecen	S	1651, 1654		4032
Ecen	U	1657, 1672, 1675	730, 734, 740	4033–296
Ecen - symbol	U	1678, 1681	750, 752	4297–338
Ecen	HU	1684, 1687, 1690, 1693, 1696	736, 742, 683	4216–7, 3781–4
EPH A	S	1456		
EPH A	U	1588	679	3763–6
EPH A	HU	1627		3779–80
LFH	U	1564, 1567	790-1, 792-1, 794-1	3556–62
Saham Toney	QS	1492		
Saham Toney	U	1546, 1549, 1552, 1555, 1558, 1561	665-5,	3552–5
Saham Toney	HU			
EPH B	S	1453		
EPH B	QS	1483		369
EPH B	U	1591	675	3767–74
EPH B	HU	1606		3256–7
Aesv	U	1702	775	4558–72
Saenv	U	1699	770	4540–57
Ece B	U	1663, 1666, 1669	762, 764, 766	4431–9
Ece A	U	1660	760	4348–430

Per thesis	Den.	ABC	VA	BMC
Ale Sca	U	1705, 1708	996	4576
Esv Prasto	U	1711	780	4577–80
References				
ABC–Cottam and others 2010				
VA–Van Arsdell 1989				
BMC–Hobbs 1996				

Appendix XII Glossary

Casual losses: these are coins that have a recorded findspot but which do not seem to be from a hoard. Coins falling into this category may include those from unidentified dispersed hoards and deliberate deposits or offerings of a single coin.

CCI: The Celtic Coin Index held at the Institute of Archaeology, Oxford University.

CPD: the number of coins per die. This measure is used to provide comparative data on different types within a sample, often a hoard, for the purposes of assessing relative chronology. It is usually computed by dividing the total number of coins of a particular type in a sample by the average number of all known official obverse and reverse dies for the type. Meaningful results rest upon the reasonable, although not infallible, assumption that the content of a hoard is biased towards the most recently minted coinage. Thus, types with a higher CPD would *prima facie* be assumed to be more recent than those with a lower CPD.

In computing the CPD the denominator can be either the average of all known dies or the average of only those dies found in the sample. Both have advantages and disadvantages. Using only the dies found in the sample reduces distortion caused by the hoard closing part way through the production of a type and potential distortion caused by forged dies being thought to be official; it is less useful at comparing older types within a hoard, as the measure can never fall below one. Unless otherwise stated, calculations within this thesis use total dies as a denominator rather than the number of different dies appearing within the sample. Computations of CPD can also be made for the individual die-groups making up a type, or even for sub-sets of a die-group, and these can be valuable in assessing the relative chronology of different die-groups. I have also used the calculation of CPD to give relative measures of how common particular types, or sub-sets of types, are in the database as a whole relative to the numbers originally in issue.

Caution needs to be taken in interpreting results, as distortion to comparative statistics may be caused by differing methods of organising production. Types produced in high volume from a single site are likely to have higher numbers of coins per die in a sample than a contemporary type produced in the same total volume from multiple sites using different dies at each. Distortion may also arise if production of a type stopped when the dies being used had been newly introduced, although the statistical impact of such an event is likely to be small for a larger type struck from many dies.

CPRD: coins per reverse die. This is a measure similar to CPD, but using the total number of reverse dies, only, as the denominator. This limits distortion which could result from exceptionally prolonged use of particular obverse dies. An example of this is the EBH Stater, where both die A and die B were used until they were very worn and flawed; die A was struck with eight different reverse dies and die B with six. The longevity of the EBH obverse dies contrasts with both previous and subsequent Stater types, the Irstead Stater, for example, being struck from seven obverse dies and only 11 reverses. In view of these differences CPRD is useful in analysing hoards of early denominational Staters.

Denominations: the Icenian coinage consisted of two denominations struck in gold alloy, the modern, generally accepted names for which are Staters and Quarter Staters, and two struck in silver alloy, the modern names for which are Units and Half Units. Several other LIA regional coinages were struck using only the same metals and denominations such as those commonly attributed to the Dobunni and the Corieltauvi. Other areas had additional denominations of bronze.

The highest value coin, the Stater, was struck throughout the period of Icenian coinage production, although much less frequently towards the end of the coinage. The Quarter Stater was generally produced in smaller volumes than its corresponding Stater. The Unit was produced in all periods, and was minted in large numbers. The Half Unit was produced less frequently than the Unit, and in lower volumes.

Die-group: this is a term that I have used to give an identity to a die-linked chain of dies where there are sufficient samples to justify examining the chain of dies to see if it forms a meaningful sub-set of the particular type of coinage. A type will usually be composed of a number of die-groups and, possibly, a few unlinked pairs of dies.

I decided to use this term whilst examining the late Icenian coinages. The hoards relating to the Boudiccan revolt provided extremely high sample sizes and I found that several types were composed of a few die-chains that remained un-linked, despite ever increasing sample sizes. When I compared some of these die-chains to others of the same type of coin, they exhibited features that suggested that their separation was not a matter of chance. Such features eventually included design details, weight, distribution and metal content. I therefore gave die-chains of all types of coin an individual identity, by calling it a die-group, where there were sample sizes which were sufficient to warrant investigation into its characteristics, usually over four coins per reverse die. Analysing the coinage in this way has elicited much valuable information, including many potential examples of the parallel minting of coinage of the same type from different sites.

East Anglia: the area of northern East Anglia in which coinage attributed to the Iceni is found. See 1.2.

Findspot: a findspot is recorded for 7254 of the coins in the database, of which 5392 are recorded as emanating from hoards. The 1862 remaining coins are those which have been used to determine patterns of distribution; the hoard coins are less useful in this regard as there are relatively few separate locations, and during the course of this study it has been established that the late hoards of Units are relatively homogenous in Icenian content irrespective of place of discovery.

Most of the records of non-hoard findspots are from the Celtic Coin Index, and record only the parish in which the coin was found. In many cases this information was obtained by the keeper of the CCI from the finder, typically a metal detectorist, after some

persuasion. Finders are often reluctant to reveal locational information for a variety of reasons, including a desire to conceal productive sites from rivals. Detailed grid references are uncommon, but where available they have been used in this thesis.

Certain dealers, such as Chris Rudd and Mike Vosper, have in the past been assiduous in trying to record provenances which were then provided to the CCI, or published in their catalogues. In recent years, the fear that this information may put them at risk of being implicated in un-authorised detecting has led to a major decline in the flow of such data.

I have been very fortunate, as the Museum and Archaeology services in Norfolk and Suffolk have been at the forefront in developing a good relationship with responsible metal detectorists. This has resulted in the collection of much data regarding findspots, including many cases where precise information is available; many of these records are included on the Portable Antiquities Scheme database. During this project, I have added many records of findspots as a result of my own dialogue with dealers and detectorists; in most cases this is limited to the parish in which coin was found.

There is a risk that some of the data on coinage distribution are incorrect and that detectorists have given misleading provenances to their finds in order to fool competitors or to cover up trespass or criminal activity. A former detectorist has helped me to correct misleading provenances given to the former well-known collector Henry Mossop and recorded by him with the CCI. Mossop was an active detectorist, and was allegedly given the misleading location of Cherry Hinton for many coins actually emanating from Saham Toney to avoid him seeking to detect the site himself.

There are almost certain to be inaccuracies within the recorded findspots, but it appears that the overall picture presented by the data is reasonable. This can be seen by the distinctive sub-regional distributions revealed for a number of coinages. Inaccurate

provenances may explain some of the occasional unexpected locations for types which are otherwise restricted in their distribution.

Unless otherwise stated plated coins are not included in distribution maps as these may not be typical of distribution of the coinage being forged.

Iceni: the attribution of a single tribal designation to the whole of the Iron Age East Anglian coinage is highly unlikely to reflect what would have been the position on the ground during the coin issuing period. Nonetheless, in accordance with common usage I use the term Icenian to describe the distinctive Late Iron Age coins which are specific to East Anglia.

North Thames: the region, which includes Essex and southern Suffolk, where coinage often attributed to the Catuvellauni and the Trinovantes is found. In many publications the region is referred to as Eastern (e.g. Hobbs 1996 and Leins 2012). Leins provides the most comprehensive recent mapping of the region based on coinage distribution (2012).

Official coinage: coins which are not plated, and which are not intended to deceive.

South Thames: the area where the coinage often attributed to the Atrebates and Regni is found (Leins 2012).

Sub-type: see Type.

Type: I use the term 'type' for a group of coins of the same denomination, which appears to have been produced by the same organisation, with the coins intended to be used inter-changeably. Usually they have common elements to their obverse and reverse designs which distinguish them from other types. Within a type there may be differing designs on, say, the obverse, as long as these are used interchangeably with a common design, or designs, on the reverse. With rare exceptions individual dies are not used on more than one type. If there is consistent stylistic variation between die-groups, or groups of die-groups, of a type I have called them sub-types; provided that this will aid the study of the

coinage. Such divisions have helped to make sense of the large and complex issue of JB Staters, for example.

Appendix XIII Statistical summary of die-study and Esty estimates of die numbers

Period & Type	Den.	Official coins			Esty estimates		Plated coins		
		No.	Obv.	Rev.	Obv.	Rev.	No.	Obv.	Rev.
JA	S	114	14	24	19	32	2	2	1
JB	S	396	26	80	27	101	67	10	24
Wolf Q	QS	4	2	3	3	8			
Bury A	U	172	12	17	13	18	9	3	4
Bury C	U	43	9	11	13	24			
Bury H	U	4	2	4					
Bury B	U	117	10	30	11	35	2	2	2
Bury D	U	15	2	5	2	5			
Bury E*	U	4	4	2	4	2			
Bury F*	U	2	1	2	1	2			
Bury G*	U	2	1	2	1	2			
LFA	U	77	10	27	12	39	3	1	1
LFB I*, II & III	U	21	5	11	6	18			
LFC	U	123	16	19	17	21	32	9	4
Mildenhall*	HU	2		1		1			
Bury and LFB	HU	20	9	14	12	31			
Spiral*	U	1	1	1	1	1			
Bury*	QS	1	1	1	1	1			
Irstead B*	QS	2	1	1	1	1			
Mildenhall *	QS	2	1	2	1	2			
Early local period		1122	127	257	145	344	115	27	36
Snettisham	S	76	8	17	9	21	2	1	2
Early Snett	QS	8	3	3	5	5			
Snettisham	QS	101	5	17	5	23			
Snettisham	U	82	11	22	12	31	1	1	1
Snettisham	HU	15	4	10	7	25			
Plouviez	S	76	6	13	6	17			
Plouviez	U	25	6	12	8	20			
Irstead B	U	9	3	5	2	10			
Irstead	S	242	7	11	7	12	2	1	2
Irstead	QS	115	8	14	8	17	1	1	1
Irstead	U	45	5	10	5	13			
Irstead	HU	3	2	2	4	4			
EBH	S	333	4	14	5	14			
EBH	U	44	3	10	3	13			
EBH	HU	16	5	7	8	12	2	2	1
Saham Toney	QS	8	1	4	1	5	1	1	1
Saham Toney	U	69	9	17	11	20	1	1	1
First den. period		1267	90	188	106	262	10	8	9

Period & Type	Den.	Official coins			Esty estimates		Plated coins		
		No.	Obv.	Rev.	Obv.	Rev.	No.	Obv.	Rev.
BHB	S	441	17	16	19	17	13	7	9
BHB	QS	55	3	2	3	2	2	2	2
BHB	U	265	16	30	17	32	16	10	11
BHB	HU	56	4	5	4	5	6	6	5
BHB(A)	U	65	16	8	21	9	3	1	2
BHB(A)	HU	13	1	2	1	2			
BHC S	S	51	7	11	8	15	8	6	7
BHC	QS	7	2	2	2	2			
BHC	U	435	39	102	42	121	20	11	14
BHC	HU	39	11	13	19	19			
BHCD	U	48	1	3	1	3	1	1	1
EPH(A)	S	2	1	1	1	1	4	4	4
EPH(A)	U	133	37	52	50	81	5	2	2
EPH(A)	HU	12	8	9	22	30			
EPH(B)*	S	1	1	1	1	1			
EPH(B)	QS	5	1	3	1	7			
EPH(B)	U	133	12	21	12	23	10	5	7
EPH(B)	HU	12	2	4	2	5	3	3	3
Mid den. Period		1773	179	285	226	375	91	58	67
Anted/Ecen	S	24	2	5	2	7	4	2	3
Anted	U	1164	27	45	28	47	46	26	32
Anted	HU	27	3	6	4	7	10	5	6
Anted SIA*	U	1	1	1	1	1			
Anted SIA*	HU	1	1	1	1	1			
Ecen	U	1452	23	41	26	51	38	18	25
Symbol	U	126	2	7					
Ecen	HU	131	8	22	10	24	8	4	4
LFH	U	1373	83	99	87	108	42	26	30
Aesv/Saenv	U	144	1	4	1	4			
Ece B	U	579	8	21	8	22	6	3	5
Final coinages		5022	159	252	168	272	154	84	105
Ece A	U	409	7	11	9	11			
Ale Sca	U	23	7	7	11	10	1	1	1
EsvPrasto	U	17	3	5	4	8			
Rare	HU	5	5	5	5	5			
Later local		454	22	28	29	34	1	1	1
Total Icenian		**9638**	**577**	**1010**	**674**	**1287**	**371**	**178**	**218**
Ingoldisthorpe	QS	22							
British A	S	127							
Plated		373							
Other		30							
Database Total		**10190**							

Other includes modern forgeries, non-Icenian and unidentified coins. *Excluded from Esty calculation as there are less than six known coins, included in the estimate at the number of known dies (see Appendix VII).