

# **WHAT IS ICENIAN COINAGE?**

by

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## **Abstract**

This thesis considers the purpose of the Late Iron Age coinage which was produced in northern East Anglia, and is usually attributed to the Iron Age tribe, the Iceni. The main source of new information used in the thesis is a detailed die-study of over 10,000 Icenian coins, believed to be the largest such study attempted for a complete regional Iron Age coinage. The thesis includes a review of previous scholarly work on the coinage and gives consideration to recent research into ancient economies and organisational structures.

The organisation of the coinage is explored and it is divided into four sequential chronological periods. The thesis explores the practical and organisational aspects of minting and finds that metal content and weight were important factors at all stages of production. The imagery and inscriptions of the coins are examined and it is found that, over the hundred years of so of production, there was a shift in emphasis from complex imagery, often containing hidden faces, to standardised simpler forms of iconography. The thesis explores the monetary role of coinage implied by these factors.

The deposition of coinage is considered, both as hoards and as single finds. The thesis shows how this evidence confirms the chronology and organisation of the coinage. It also shows that, contrary to previous assumptions, hoarding was not a continuous process in the study region. It was episodic using specific forms of coinage. The thesis finds increasing evidence of monetisation but also explores other potential uses for the coinage, and reasons for its issue.

The detailed die-study and descriptions of the many types of coin are presented as appendices.

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## Chapter 1 Introduction

### 1.1 Background and introduction

The aim of this thesis is to use the unique insights gained from a complete die-study of a Late Iron Age (LIA) regional coinage, to consider what the coinage actually was, and how it was used.

I started this study, and chose Icenian coinage as its subject, as a result of discussions with Dr Philip de Jersey, then of the Celtic Coin Index at Oxford University. The growth of metal detecting as a hobby in the previous few decades had vastly increased the quantity of LIA coins available for study. Philip observed that Icenian coinage was poorly understood, yet was large and complicated. He suggested that a die-study of part of the coinage could provide definitive information about its organisation, and the relative chronology of some of the various types.

Icenian coinage was struck in the four denominations illustrated in Figure 1.1: Staters and Quarter Staters in gold alloy, and Units and Half Units in silver or silver alloy. It circulated in northern East Anglia, encompassing Norfolk, north Suffolk and parts of Cambridgeshire, for approximately a century up to the Boudiccan Revolt of AD 60/61.



Figure 1.1. The four Icenian denominations with Unit upper-right and Stater lower-centre

## Chapter 1. Introduction

My interest in the subject and initial approach to the study were perhaps unconventional. I have had a long interest in contemporary art and a love of abstraction. On seeing some LIA British Staters, I immediately found the abstracted aspects of their imagery attractive and interesting. The decision to devote much of my time to this research was a response to a family tragedy which had left me unable to continue my previous career as before. Aspects of that career determined my approach to the study; I had often been responsible for large investigations into corporate failure and fraud. In those investigations it was necessary to ignore preconceptions and to work from demonstrable facts. In the early years of this study my approach was similar; I sought to reach my own conclusions about Icenian coinage without being influenced by a preliminary study of existing literature.

I gained some valuable insights from a die-study of the earliest Icenian silver coins, but it became clear that a full study would be far more beneficial. Thus the project grew into a die-study of every Icenian coin that I could trace. I started with the records of the Celtic Coin Index in Oxford and then added unrecorded coins from major museums, private collections and coin dealers. The die-study includes over 10,000 coins and took some 13 years to complete. I understand that no other die-study of this scale has ever been attempted for a British Iron Age coinage. The study was carried out continuously but, until the final stages, on a part time basis.

As the scale of the die-study grew, so did the variety and quality of information which it yielded. It became apparent that this particular type of artefact could provide insights not available from other forms of material culture. Die-linking demonstrates that the relevant coins are related to each other in terms of both chronology and minting. This reduces the need for subjective assessments of stylistic similarity and change in order to assess relationships and chronology.

With the die-study largely complete, and an advanced hypothesis about the organisation of Icenian coinage, I embarked upon the final phase of this thesis. Under the direction of Professor Chris Gosden, I immersed myself in a wide range of relevant literature in order to relate what I had learned to other numismatic studies and to wider developments in archaeological and anthropological thinking.

There has often been something of a distinction between numismatic and archaeological approaches to coinage studies. Numismatic approaches are very detailed, but can lack linkage to archaeological context and broader considerations of art, economics and power. Archaeological approaches deal with such issues but are often empirically weaker. My intention in the final stages of the study was to use the full rigour of numismatic methodology, in combination with an archaeological approach to these broader considerations, in order to answer the question ‘What is Icenian coinage?’. In this way I have examined a complete tribal coinage in a degree of detail and breadth not previously attempted.

In this opening chapter I discuss briefly the Iceni and the archaeology of LIA northern East Anglia, followed by a summary of earlier work on Icenian coinage. I give details of my methodology for the die-study and how it was used in conjunction with other data and research to clarify the nature of the coinage. I summarise the data-set and the broad aims of the thesis. I then provide an overview of my hypothesis for the organisation and relative chronology of the coinage. I briefly discuss some recent developments in archaeological thinking that are taken into account in the thesis, and conclude with a summary of the thesis’s structure.

## **1.2 The Iceni**

The Iceni is the name commonly used for the inhabitants of LIA northern East Anglia. Most ancient references to the tribe relate to the period following the Roman conquest and

particularly to the Boudiccan revolt of AD 60–1. The earliest reference to the tribe is probably as the Cenimagni, one of the five groups that surrendered to Caesar (*The Gallic War* 5.21). The next reference is not until after the conquest when Tacitus refers to the tribe of the Iceni revolting against their disarmament in AD 47. He observes that the tribe had never previously fought against the Romans (*Annals* 12.31).

The distribution of coinage is frequently used to confirm that a LIA region had some form of discrete identity. Figure 1.2 clearly shows that of the Iceni. All Icenian coinage finds are recorded (gold dots) revealing a distribution incorporating Norfolk, northern Suffolk and parts of fenland Cambridgeshire. The map shows the locations of the principal sites, areas and rivers discussed in this thesis.

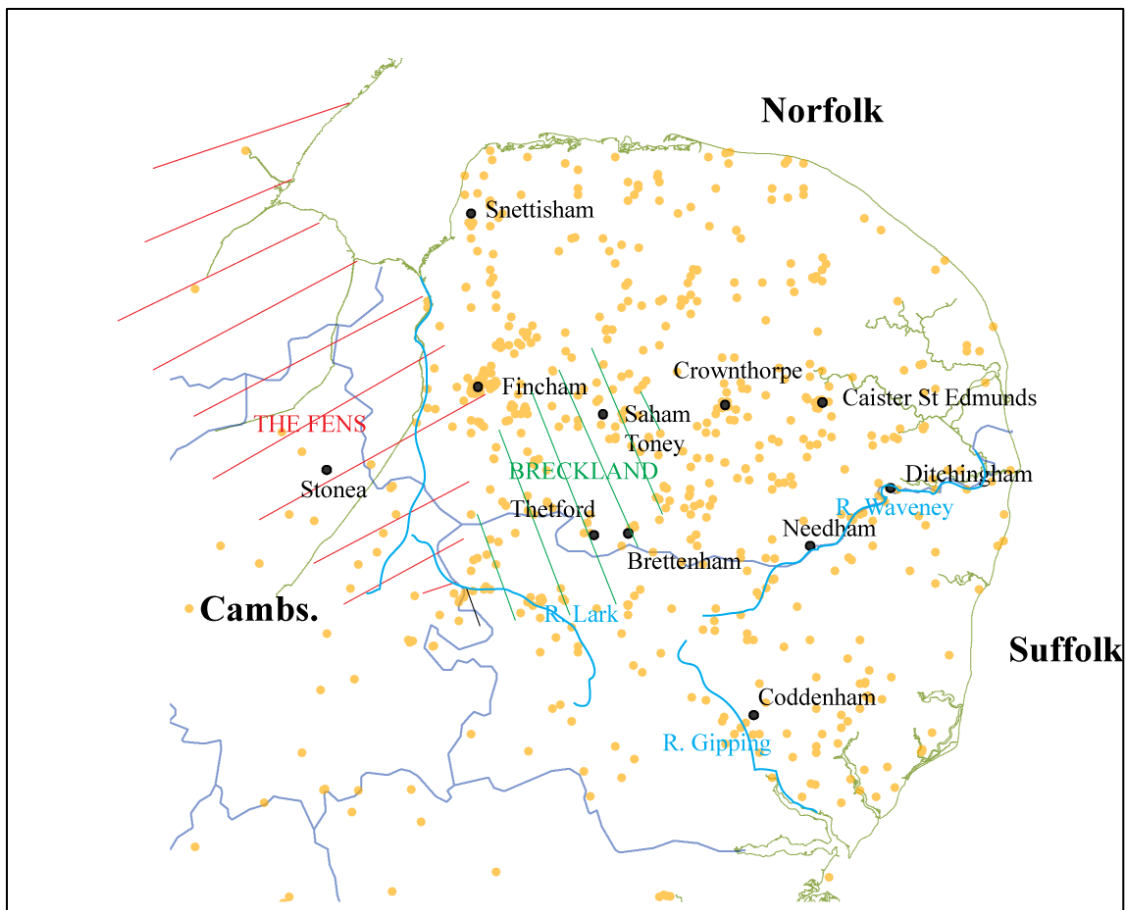


Figure 1.2. Icenian coin finds and key locations

## Chapter 1. Introduction

This thesis shows that Icenian coinage was not a single coinage produced at regional level on behalf of a tribe. Nonetheless the larger issues have a consistent pattern of distribution. It is not known if the LIA people of the region recognised themselves as part of a single tribe or grouping, and if they did, whether they called themselves Iceni. Nonetheless in this thesis I use the term Iceni, or Icenian, as convenient shorthand for both the inhabitants and their coinage. I follow Hobbs (1996) in referring to the region as East Anglia when discussing the more restricted geographic area in which Icenian coinage circulated. I refer to the neighbouring region to the south as North Thames, an area often associated with Aylesford-Swarling burial rites and the tribal groupings of the Trinovantes and Catuvellauni.

Historically East Anglia has suffered from a lack of excavation and its major sites are poorly understood. Metal detecting and fieldwalking have revealed an extensive area of activity in and around Saham Toney on the northern edge of Breckland (Brown 1986 and Davies 2008: 124–5) which has never been thoroughly investigated. Only limited excavation has been conducted at the famous site of Snettisham (Stead 1991; Hutcheson 2011; British Museum, in press), but rescue archaeology resulted in the comprehensive excavation of a ritual site at Fison Way in Thetford (Gregory 1991). This is within another major area of largely un-investigated LIA activity (Davies 2008: 120–5).

The lack of attention afforded to East Anglia is starting to change as a result of work by John Davies and others. Davies emphasises the distinctive nature of Icenian culture, with unenclosed settlements and hillfort-type enclosures in west Norfolk and distinctive decoration on coinage and other artefacts (Davies 2008: 109–18). The lack of Icenian engagement with Rome has often been noted, as evidenced by the absence of artefacts such as early amphorae and the traditional nature of the coinage. Hutcheson has carried out a study of metalwork deposition in Norfolk, looking at torcs, coinage hoards and horse equipment (2004). She identifies increasing evidence of horse equipment across

the county in the LIA. She argues that if horses can be associated with wealth and power (referring to Creighton 2000: 22–6) then the region may have been heavily involved in political alliances with Rome. She speculates that it may have expressed its new wealth through ‘native’ artefacts and display, in the form of horses and trappings, rather than Roman commodities (Hutcheson 2004: 95–6).

### **1.3 Previous work on Icenian coinage**

Sir John Evans devoted a chapter of *The Coins of the Ancient Britons*, to the ‘coins of the eastern district’ which ‘appears’ to have been occupied by the Iceni, comprising Norfolk, Suffolk and probably portions of adjacent counties (1864: 357–403). Evans illustrated 27 Icenian coin types (1864: plates 14–16). Earlier writers had also identified coins as relating to the Iceni and Evans suggests that the first such attribution was an Ece A Unit illustrated on a plate of ‘British coins in Gold, Electrum, Silver, and Copper, in the possession of John White, 1773’, which was accompanied by two pages of description.

Subsequent writers on British Iron Age coinage such as Commander Mack (1953) followed the lead of Evans. The first thorough study of Icenian coinage was published by Derek Allen in *Britannia* in 1970. This established a theoretical structure which informed much subsequent writing about the coinage. It is briefly summarised below as adaptations of his terminology are used extensively in this thesis.

Allen observed that all known examples of the silver coins had a boar, horse or pattern on the obverse, always coupled with a horse on the reverse. He assumed that the Iceni were a group of associated or federated tribes and that the different obverse designs represented ‘three separate traditions’ each relating to a ‘pagus’ of the Iceni. He named the three ‘traditions’ Boar-Horse, Face-Horse and Pattern-Horse and concluded that these three ‘main streams’ of coinage were produced in parallel, but mingled to form a ‘single mixed stream’. His three traditions are shown in Figure 1.3.



Figure 1.3. Boar-Horse, Face-Horse and Pattern-Horse

Allen noted that within each stream there were major variations in the detail of obverses and reverses which formed consistent pairings. Thus he identified separate ‘types’ of coin within each stream. He usually named these by appending a single letter suffix to the name of the stream. If he believed a particular type to predate most others he prefixed the name with ‘early’. Thus the type to the left in Figure 1.3 Allen named ‘Boar-Horse C’, that in the centre ‘Face-Horse C’ and that on the right ‘Early Pattern-Horse A’.

Three different types of Boar-Horse Unit identified by Allen are shown in Figure 1.4.



Figure 1.4. From left: Boar-Horse A, B and C

I have also found parallel sequences of minting and three main mints in later periods of the coinage; however these cannot be separated by the obverse design as thought by Allen. Nonetheless I have used many of Allen’s names in this thesis, albeit in an abbreviated form. For example his Boar-Horse B is retained as BHB, his Early Pattern-Horse A as EPH(A) and so on. Allen’s ‘Face-Horse’ names have not been retained, except that his Face-Horse A, B and C have been combined into a single type called LFH (from late Face-Horse).

## Chapter 1. Introduction

Allen attempted a die-study but he had very few early coins and his estimates of die numbers for some later types are excessive. He seems to have undertaken the study rapidly, often treating different looking examples struck from the same die as if struck from different dies.

Tony Gregory started working in Norfolk in 1974 as Assistant Keeper of Archaeology at Norwich Castle Museum, leaving the county in 1989 after several years as Deputy County Field Archaeologist. Gregory played a leading role in developing relations with the metal detecting fraternity. This brought about a massive increase in Iron Age coins recorded in the county, which has been invaluable for this thesis. Gregory wrote an important paper on 'Early Face-Horse' Units, the numbers of which had grown to 77 from only six such coins known to Allen. This was published after his untimely death at the age of 42 and named many new types, including Bury A, B and C, so called because the first examples were found near Bury St Edmunds (Gregory 1992).

In 1994 John Creighton stimulated much debate with a paper which concluded that the late hoards of the Iceni, previously considered to date from the Boudiccan revolt, had been deposited over a range of dates between the Roman conquest in AD 43 and the Boudiccan revolt of AD 60/1. I have re-examined Creighton's data and found that it was distorted by the inclusion of poorly recorded hoards from the 19<sup>th</sup> century and early 20<sup>th</sup> century (Appendix VI). Creighton assumed that the original content of these early hoards would be similar to the mix of the coins which can now be identified as emanating from them. This is not the case. It has been demonstrated using data from the Freckenham hoard (Talbot and Leins 2010: 11 and 14), that coins from old hoards which are retained in collections are likely to be biased towards the more unusual coins in the hoard. These are inevitably the older coins and those just being introduced at deposition. Unfortunately Creighton's assumption led him to identify the poorly recorded 19<sup>th</sup> and early 20<sup>th</sup> century

hoards as predating the others in terms of date of deposition. They did predate the others, but only in terms of discovery.

Megan Dennis has undertaken a large study of the metal content of Icenian silver coinage (2005) which is discussed in 4.4.2.

In the early 1990's Amanda Chadburn commenced a study of Icenian coinage initially looking at the whole, subsequently reducing this to a study of coin hoards within the area (Chadburn 2006). She suggested that hoarding was a cultural tradition of the Iceni, and having studied the dies used in the Field Baulk hoard and one of the batches of the Fring hoard, she commented upon their homogeneity. She concluded that the late hoards were economic in nature and left unrecovered for multiple reasons such as forgetfulness, death and unrest such as the revolt. This thesis re-examines Icenian coin hoarding patterns with the benefit of the results of the complete die-study.

Chadburn examined each type of coin issued by the Iceni and, like Allen, concluded that Icenian coinage was produced in 'three streams' during the latter stages of production. In the acknowledged absence of distribution analysis, she tentatively attributed each of these streams to a Pagus. My study has resulted in somewhat different groupings of coinage and, using distribution analysis, I re-examine the reasons for the parallel production of different types of coinage.

In 2006 I published a paper on Early Face Horse coinage which updated Gregory's (1992) work and was an interim report on aspects of this die-study.

#### **1.4 The methodology used for the die-study and its subsequent analysis**

In this section I provide a brief explanation of how Icenian coins were produced and why a die-study yields valuable information. I then give an overview of the methodology used and some of the techniques developed during the die-study. This required a huge investment of time and effort, particularly in relation to Icenian Units. These are small and

their dies are often numerous and very similar. The dies were sometimes used until they were extremely worn. A more detailed summary of the methodology is given in Appendix 3. The section concludes with a summary of how the die-study has been used in a wider examination of Icenian coinage.

Icenian coins were produced by striking either an unmarked metal pellet, or a blank flan, between a concave anvil die and a physically separate convex hammer die. There was no cast coinage. When a coin is struck, its obverse receives an impression of the design on the anvil die, and its reverse one of the hammer. For simplicity I usually refer to hammer dies as reverse dies, differentiated by a number, and anvil dies as obverse dies, identified by a letter.

No two coins are ever identical. Even if struck consecutively from the same dies, variations are caused because:

- Most dies were between 150% and 200% of the surface area of a coin. The area of the die impressed on the coin differed with each strike.
- The shape of each coin is subject to much variation resulting from the differing forces exerted by each manual strike, and by pellets or flans lacking uniformity.
- Usually there is no standard alignment of obverse and reverse dies, thus the top of the obverse of a coin may equate to any point on the circumference of the reverse. Sometimes there seems to be a ‘preferred’ alignment, possibly due to the presence of a grip on the hammer die.

Figure 1.5 shows two coins struck from different areas of the same die.



Figure 1.5. BHB Staters struck from die 6

The physical separation of obverse and reverse dies is the key to the value of a die-study. All dies deteriorated with use, and reverse dies had approximately half the life expectancy of an obverse die. Therefore new dies were introduced intermittently into a mint and it was normal for each obverse die to be used with several different reverse dies and, to a lesser extent, vice-versa.

Figure 1.6 shows how dies change appearance with use. On the left is a coin struck from an un-worn obverse die D coupled with a strike from reverse die 6; die 6 shows die deterioration in front of the horse's breast. The coin in the centre is also struck from die D but at a later stage in its life, many flaws having developed including one at the bottom of the right crescent. Die 6 was no longer being used and the reverse is struck from a fresh looking die 7. The final coin, on the right, is also struck from die 7 but shows dramatic die deterioration; at this stage die 7 was being paired with an un-worn obverse die F.



Figure 1.6. BHB Staters struck by dies 6:D, D:7 and 7:F

Dies linked in this way are called a die-chain. The example illustrates how the identification of dies, and of the stages of their deterioration, makes it possible to order a

die-chain into a definitive chronological sequence. Much new information in this thesis has been obtained from the examination of such sequences.

No Icenian coin dies have ever been found and the images discussed in this thesis are the ‘negative’ impressions created on coins. The images on Icenian coin dies were made with great care, but each one is different and distinguishable. The die-study makes it possible to assess the chronology of stylistic change introduced into a sequence of dies.

To assist in the die-study I developed techniques, using a computer graphics program, to overlay images in order to verify die identification. These techniques also enabled me to produce composite photographic images of dies. Two examples are shown in Figure 1.7; the BHB Stater incorporates parts of the coin shown on the left of Figure 1.5.



Figure 1.7. Composite images of BHB Stater die 6 (left) and JB Stater die 18 (right).

Most die studies illustrate die-chains graphically, as shown in Figure 1.8.

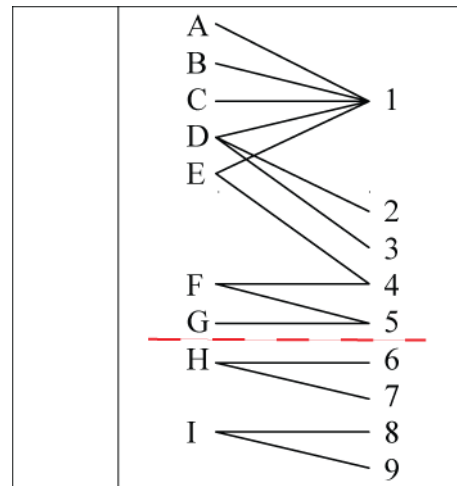


Figure 1.8. Extract from a graphic die-chart

The chart above has obverse dies in the left column and reverse dies in the right. It shows reverse die 1 to be linked to five obverse dies, the final two of which (D and E) are linked to three other reverse dies (2, 3 and 4) and so on. The sequence illustrated is not a continuous die-chain. I have highlighted one break by a red dashed line, since there are no die-links to prove that either obverse die H followed G or that reverse die 6 followed 5. The numismatist will have examined the dies for stylistic development, and the chart reflects his subjective judgement as to their correct ordering.

It is often assumed that breaks in die-chains are caused by:

- A shortage of samples.
- The simultaneous replacement of all dies in a mint; this may involve only two dies as sometimes only single obverse and reverse dies are used at any one time.
- Intermittent minting, with new dies being used after a gap in production.

In this thesis I have not automatically assumed that a gap in a die-chain represents a missing link. This was as a result of my discovery that the two parts of what might have been a single, but ‘broken’, die-chain each had differing distributions. For types with a significant sample size, usually above an average of four coins per reverse die, I have

called each die-linked chain of dies a ‘die-group’ to give it an identity and to facilitate further study. On a few occasions, the reasons for which are noted, un-linked dies have been added into a die-group.

Charts have been produced which illustrate every known Icenian die. These are attached as Appendix I. An extract is illustrated in Figure 1.9; this shows the start of a long die-chain for Anted Units. It reveals that obverse die A is linked to six reverse dies of which three (dies 3, 4 and 5) are also linked to obverse die B and so on. The small red numbers record the number of known examples of each combination.

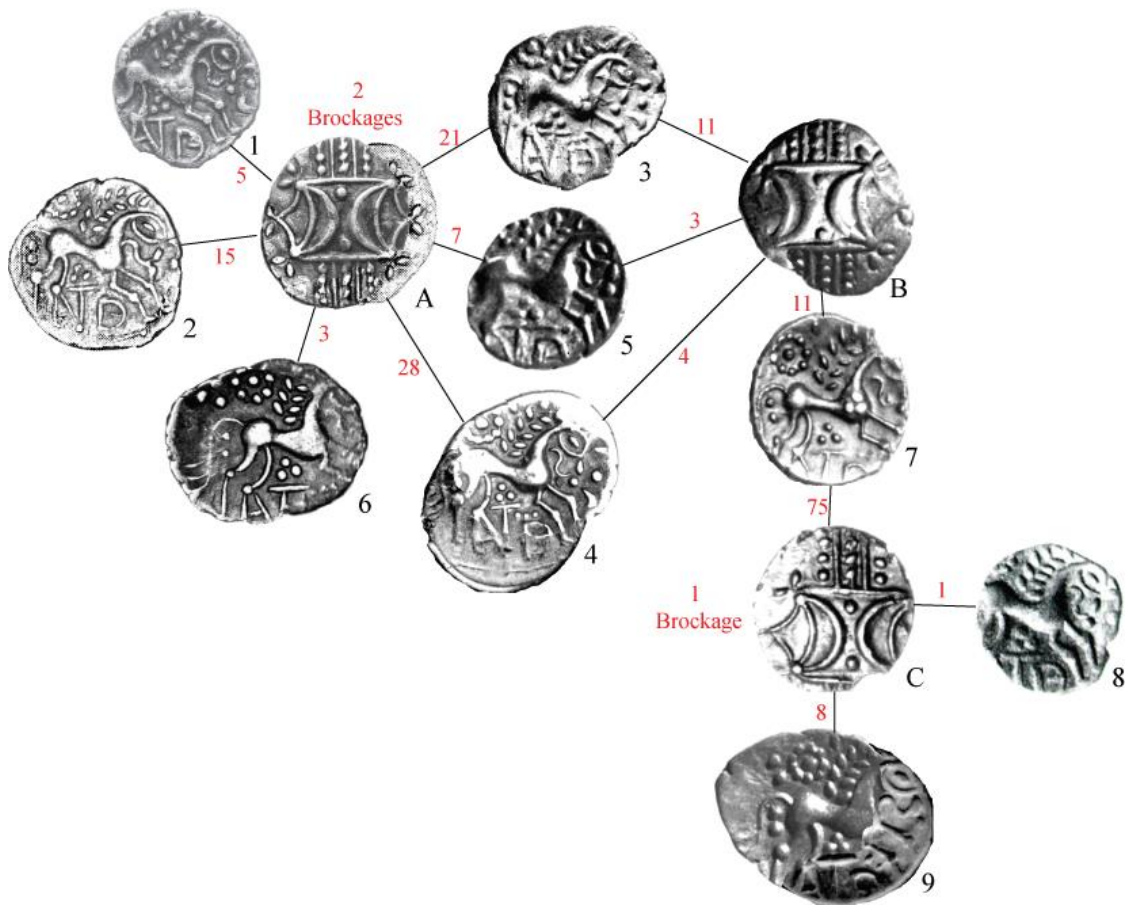


Figure 1.9. Anted Units – extract from die-chart

The photographic die-charts reveal any stylistic change within a type, and are a key tool for die identification. They are also a significant resource for the study of LIA art in general.

In the course of the die-study I developed a hypothetical model for the organisation of the coinage, which was regularly re-examined and refined. Considering the chronological sequences of coinage from the die-study, in conjunction with a detailed analysis of hoards, clarified much of the chronology and organisation of the coinage. I divided the coinage into periods and identified the parallel output of different mints. Types and denominational groupings of coinage were identified and named.

All Icenian coins were recorded in an Access database. The record of each coin included type, identification reference, dies, die-group, weight and findspot. Subsidiary databases had digital photographs of each coin, grid-references of findspots to use in conjunction with the mapping program ArcGIS and metal analysis.

I used the results of the die-study and my hypothesis for the organisation of the coinage to break down the coinage into different elements. These were analysed in detail and the results compared. Such elements included die-groups, types, denominational groupings, mints, denominations and entire periods. Comparative analysis included consideration of weight, distribution and number of dies and in some cases features of imagery and type of find or findspot. The objective of this analysis has been to obtain information about the organisation of the coinage, the circumstances in which it was produced and its function.

Particularly valuable information was obtained by comparing chronological sequences of dies with hoard content and by comparing the geographic distribution of different elements of the coinage. Key information was also obtained by an in-depth analysis of all LIA coinage found at several sites. Within the scope of the present thesis I have not attempted to carry out my own study of the precise locations of hoards and individual finds within the landscape. Natasha Hutcheson considered these issues in her study of the metalwork of Norfolk, which included coinage hoards (2004); her findings are discussed in 6.11. I suspect that valuable results would be obtained by studying the

location of individual finds. Most of my data for individual finds is insufficiently precise to conduct such a study, but increasingly detectorists are using GPS devices and providing precise grid references. A future study using these data would be likely to provide further insights into the use and disposition of the coinage.

### 1.5 The data-set and the broad aims of the thesis

The data-set was intended to include all known Icenian coins for which a photographic record could be obtained. The key source of data was the records of the Celtic Coin Index and I included all coins recorded there up to the end of 2005, approximately six years after the study started. Many coins not recorded at the Celtic Coin Index were identified and included in the data-set which eventually exceeded 10,000 coins as summarised in Table 1.1.

Source of coins on database	Thousand
Celtic Coin Index	6.9
British Museum	2.1
Norwich Museum	0.2
Dealers, collectors, eBay, Historic Environment Records and others	1.0
Total	10.2

Table 1.1. Coins in the Access database

Each coin has an individual reference, in most cases either the six digit Celtic Coin Index number, for example 73.0600, the first two digits referring to the date of the record, or its number in the British Museum Catalogue (Hobbs 1996).

In 2014 I sought to find additional coins with full provenance details and to identify new dies and/or die-links. I examined the records of both Norfolk and Suffolk Archaeology Services and additions to the Celtic Coin Index and the Portable Antiquities Scheme database since 2005. This review added 345 non-hoard records to the distribution

analysis; these are included in the maps which form part of this thesis. These records and others without a provenance resulted in 17 additional dies and four new die-links. New dies and die-links are included in the die-charts in Appendix I, and identified as ‘post close’ entries. Where they provide important information they have been referred to in the text and taken into account in conclusions. They are neither included in the Access database nor the statistical summaries of data.

### **1.6 My analysis of the coinage**

This section provides an overview of my conclusions about the structure and relative chronology of the coinage. I have greatly simplified what were previously long lists of separate types and denominations. The main change, which has brought order to a coinage that previously seemed somewhat chaotic, was the discovery that most of the later types formed only 13 different stylistically-linked denominational groupings. I have called each such grouping an ‘Issue’.

The earliest British gold coinages produced in East Anglia were JA and the succeeding JB Staters (Figure 1.10). These are frequently referred to as right or left-facing Norfolk Wolf Staters or as British J (from Allen 1960).



Figure 1.10. JA Stater

It is likely that within a few years of gold coinage starting in the region, the first silver Units were also produced. These were 'Early Face-Horse' Units, the first of which were probably Bury A and Bury C. I have continued to prefix the earliest Units 'Bury' and have added Bury D to G, to the types described by Gregory (1992).

Sometime after the start of the Bury coinages three types were produced on very large dished flans. I have called these types LFA, LFB and LFC with the first two letters signifying large flan (Figure 1.11).



Figure 1.11. From left: Bury A and LFA

There were also a few Quarter Staters and Half Units produced alongside these early coinages, but there were no stylistic links between gold and silver types. I have called this first period of coinage the 'early local' period, during which types often had a sub-regional distribution. Some were small scale, minted with only a few dies. The numismatic imagery of this period often borrowed heavily from Gallo-Belgic coinage, but with much variation and innovation.

There followed a major change in the coinage with gold and silver types becoming stylistically linked and very local coinage became scarcer. Imagery became less flamboyant and increasingly less variable within a type. I have divided the denominational coinages into three periods, thus giving a total of four periods of Icenian coinage production:

1. Early local
2. First denominational

3. Mid-denominational: the coinage was produced by three mints and back-to-back crescents become widespread, occurring on at least one denomination in most Issues.
4. Late denominational: inscriptions were introduced and there was a marked reduction in the use of gold.

Quarter Staters produced after the early local period are actually fifths of a Stater, but to avoid confusion with the generally accepted nomenclature I have continued to call them Quarter Staters in this thesis (see 4.3.3).

I have used the term 'Issue' to describe a set of different denominations which are stylistically linked and which appear to have been produced contemporaneously as a 'complete' coinage. Stylistic similarities in the design of the reverses, especially the head of the horse, usually link the types within an Issue. Such similarities can be seen in Figure 1.12 showing the first denominational grouping, the Snettisham Issue, which has denomination specific obverse imagery.



Figure 1.12. From left: Snettisham Stater, Quarter Stater, Unit and Half Unit

I have generally named the various Issues after the best-known component type, thus the BHB Unit gives its name to an Issue that contains the BHB Stater and BHB Half Unit. The BHB Stater was formerly known as an Early Freckenham type but there was no common name for the Half Unit. A concordance is attached as Appendix XI. There was no common name for the components of the Plouviez Issue, which I named after the archaeologist responsible for excavation of the site of the Dallinghoo hoard. Examples from five Issues (Snettisham, BHB, BHC, EPH(A) and LFH) are illustrated in Figure 1.3

and Figure 1.4. An example of a Unit from each of the remaining Issues is shown in Figure 1.13.



Figure 1.13. Denominational Issues – examples of Units: 1 Plouviez, 2 Irstead, 3 Saham Toney, 4 EBH, 5 EPH(B), 6 Ece B, 7 Anted and 8 Ecen

In addition to these Issues there are a few later local types, examples of which are shown in Figure 1.14.



Figure 1.14. Late local types: 1 Cani Dvro, 2 Ale Sca, 3 Esv Prasto and 4 Ece A

An indicative chronology for Icenian coinage is shown in Table 1.2.

Possible dating	Period	Mint group A	Mint B	Mint C
55BC–15BC	1	Early Local Coinage		
15BC–5AD	2	Snettisham		Saham Toney
		Plouviez/Irstead		
5AD–25AD	3	EBH	EPH(A)	EPH(B)
		BHB		
25AD–60AD	4	BHC	LFH	Aesv, Saenv, Ece B
		Anted/Ecen		
		Ecen		

Table 1.2. Indicative chronology of Icenian coinage

## Chapter 1. Introduction

The typology and relative chronology shown schematically in the table, illustrates the hypothesis which has been developed and refined during the course of the die-study and the subsequent work. It also provides the structure for Chapters 2 and 3 of the thesis which describe the coinage in more detail.

Period 1 in Table 1.2 is similar to phases 5 and 6 of period II in the periodization of British Iron Age Coinage developed by Haselgrove (1987: 95 and 262) although the ordering of the early silver types differs. With differences of detail my periods 2 and 3 are similar to phase 7 of Haselgrove's period III, and my period 4 to his phases 8 and 9 of period III.

Table 1.3 provides an over-view of the die-study. It shows the numbers of known coins and of identified dies for each period. The table shows the increasing importance of Units and the dramatic fall-off in the use of gold during the century or so of Icenian coinage production. It also highlights the disproportionate number of coins recorded from the final period of production as a result of the hoards relating to the Boudiccan revolt.

Period	Coin numbers		Number of official dies				
	Official	Plated	Stater	Quarter	Unit	Half	Total
Early local	1122	115	144	12	204	24	384
First denominational	1267	10	80	55	113	30	278
Mid-denominational	1773	91	55	13	337	59	464
Final coinages	5022	154	7	0	363	41	411
Later local	454	1	0	0	40	10	50
Total	9638	371	286	80	1057	164	1587

Table 1.3. Overview of the die-study

Chapter 4 includes estimates of the original population of dies based upon formulae produced by Warren Esty (2006), but references to die numbers in this thesis relate to actual identified dies, unless otherwise specified.

### **1.7 Other research to be taken into account in the study**

British LIA coinage studies have been strongly influenced by the anthropological work of Malinowski (1920; 1921; 1922) and others. This, together with the views of Polanyi and Finlay on ancient economies, led to a debate in the 1970's which included Collis, Haselgrove and Rodwell about the nature of British LIA coinage. After this extended debate it became unfashionable to view such coinage as money used for market exchange purposes or to seek to tie its production to historical events.

These arguments will be re-examined in Chapter 7 of this thesis. This will incorporate recent developments in thinking about ancient economies and the effect of money on previously non-monetary societies. The same chapter will look at alternatives to strictly hierarchical models of society which may account for some features of Icenian coinage.

It has often been thought that there is little to be learned from LIA numismatic imagery and that it is outside the mainstream of LIA British art. It has either been excluded or only briefly touched upon in many studies of IA art such as Megaw (1989), Stead (1996) and Garrow and Gosden (2012). The conventional view of the imagery is that it is indirectly derived from either a Stater of Philip II of Macedon or an alternative prototype and followed a pattern of simplification (or degeneration) until there was a late flowering of numismatic art in the south-east using Roman forms of imagery. As discussed in 5.1 I consider the theory of gradual degeneration to be wrong and that numismatic imagery should not be treated separately from other forms of art and imagery.

I believe that developments in the study of ancient art are likely to be helpful in seeking to understand the purpose of Icenian coinage. Particularly important to my review of Icenian imagery and conclusions are Gell's work (1998) on viewing art as a system of action, Creighton's ideas (2000) on coinage as an expression of power and Freedberg's work (1989) on the power of images. Many other studies have been taken into account including those of Garrow and Gosden (2012), Chimirri-Russell (2003), Zanker (1988) and Foster (2014).

### **1.8 The broader aims of the thesis**

The key focus of this study has been to provide a thorough understanding of how Icenian coinage was organised and its chronology. This has included assessing its scale, imagery, distribution, manufacturing accuracy and hoarding and how these changed with time. My objectives have been to use this information to draw conclusions about the use of the coinage, the organisation and locations of its manufacture and its original purpose. In addition to these I have had several broader aims.

The nature and organisation of society in LIA East Anglia is unclear. Other studies have suggested that it may not have been arranged on a strictly hierarchical basis. These ideas are addressed in the final chapter of the thesis, I also examine evidence from the thesis which may provide clues about East Anglian society in the LIA and how Icenian coinage affected it, both in terms of its day to day activities and its longer term belief systems.

In the conclusion I will also examine whether historical events can be detected in Icenian coinage and reflect upon the extent to which the influence of Rome has been discernible within the study.

### **1.9 The structure of this thesis**

Chapters 2 and 3 provide a more in depth analysis of the structure of Icenian coinage based upon my hypothesis that initially various coinages were produced sub-regionally, without stylistic links between gold and silver, and that subsequently production became more organised with coinage being minted in full denominational groupings by a number of mints operating concurrently. Chapter 2 starts with a discussion about the first coinages which appear to have been present in East Anglia but which were minted elsewhere. The gold and silver coinages of the early local period are then discussed using illustrations, distribution maps and statistical information. Chapter 3 covers the coinage of the denominational periods. I discuss the three main mints: how I identified them, their relative size and the scale and distribution of their Issues. I briefly discuss the types making up each Issue.

In Chapters 4 to 6 I look at specific features of the entire coinage and draw the relevant information together in order to help understand what the coinage was. Chapter 4 deals with production. I cover the scale of the coinage and use the Esty formulae to estimate original die numbers. I also address metallurgy, weight accuracy and the relationship between the various denominations. In Chapter 5, I examine imagery and the inscriptions on the coinage. Key aspects of the imagery are each addressed including hidden faces, and I consider how imagery changed with time. I discuss the introduction of inscriptions on Icenian coinage and refer to previous etymological studies. In Chapter 6 I consider the deposition of the coinage. I summarise the data that I have been able to extract from hoards and examine the nature of hoarding. This chapter provides many clues as to the nature and purpose of the coinage and shows that, contrary to expectations, hoarding was intermittent in East Anglia. The finds from two unusual sites are analysed as are differences between the mix of coinage from hoards and site scatters. I discuss overall coinage distribution as well as distribution by period, mint and denomination.

Chapter 7 is the conclusion. I summarise developments in thinking about LIA society, ancient economies and the use of early coinage. These are then considered in conjunction with the key findings from the thesis and I seek to draw conclusions about the nature of Icenian coinage. I also address the other broader aims of the thesis, and the extent to which the study has provided additional insights and evidence.

There are a series of appendices to the thesis, Appendix I is particularly important as it is the photographic record of the die-study. The plates in the appendix follow the order of Chapters 2 to 4 and illustrate each die used in the coinage. They show the number of known examples of each die combination and of brockages. Many examples of plated forgeries are also illustrated. Detailed written descriptions of the Icenian types discussed in Chapters 2 and 3 are included in Appendices II and III respectively. These descriptions formed a key part of the investigation into the coinage and hence are much less abbreviated than a typical numismatic catalogue of types. Appendix X provides additional details of Icenian hoards. Appendix XIII provides a statistical summary of the die-study and the Esty forecasts of original die numbers.

A glossary of terms used in this study is included as Appendix XII, this includes a discussion about findspots and how this information has been obtained and used. An abbreviated glossary is provided on a foldout sheet at the back of volume 1 of the thesis, this is intended to help readers who are un-familiar with some of the numismatic terms used throughout the thesis.

The chapters of the thesis are referred to by Arabic numerals and are sub-divided into sections and sub-sections. The appendices have a similar structure but using Roman numerals for the appendix number. Cross-references within the thesis, referring to other sections or sub-sections are given on a numeric basis only, without the words chapter or appendix; these are readily identifiable by the type of numeral. The numbering of figures and tables is similar, using the appropriate form of numeral for chapter or appendix.

### **1.10 Summary**

In this chapter I have explained the objectives of the thesis and have discussed previous work that has been undertaken on the coinage. I have given an overview of my hypothesis for the chronology and organisation of the coinage. I have also included information about the die-study and how it has been used to provide information about the purpose of the coinage and the nature of the society that used it.

This chapter also includes a brief summary of some of the contemporary research that will be taken into account in the thesis and some broader aims of the study. It concluded with a summary of the structure of the thesis.

## **Chapter 2 The early local Icenian coinage and its predecessors in East Anglia**

### **2.1 Introduction**

The main purpose of this chapter is to introduce the Icenian coinage of the early local period. The period started with the first minting of coinage in East Anglia in the middle of the first century BC, and ended on the introduction of full denominational coinage, probably some forty years or so later. I will discuss the variety of types, where and when they were issued, the scale of production, relationships between different types and how production was organised.

The defining features of this period are the lack of stylistic links between the main gold and silver coinages and the local nature of many of the types. I will show that, despite these features, there was consistency in the metal, the denominations and major elements of imagery. I believe that this rigidity is important when considering, later in the thesis, what the coinage was.

The early local coinage is exceptionally beautiful and must reflect a burst of creativity as LIA art began to be applied to coinage. Later coinages do not have the hidden imagery and variability of these early types. This aspect of the coinage will be more fully explored in Chapter 5.

In order to understand the purpose of the earliest Icenian coinage I have attempted to assess the degree of familiarity there may have been with coinage, before local production started. The chapter starts with a brief discussion about several pre-Icenian coinages which may have helped to provide this familiarity.

Most of the chapter discusses the coinage produced in East Anglia during the early local period. The main gold coinages are discussed first, followed by the silver, with Units and Half Units considered separately. Before the summary at the end of the chapter there is a brief discussion about two small issues of Quarter Stater.

## Chapter 2. The early local Icenian coinage and its predecessors in East Anglia

For each type of coin I include details of the numbers of known examples, die-groups and dies, distribution, unusual features, links with other Icenian and non-Icenian coinages and an illustration of a typical example. Illustrations in this chapter are not to scale however 1.2x scale images of each die are given in Appendix I. In view of the scale of the coinage the information given within this chapter on each type is abbreviated. Fuller written descriptions of each type are given in Appendix II, with more data on die-groups and weight. References to tables and figures starting with roman numerals relate to the appropriate appendices.

### 2.2 Early non-Icenian coinages in East Anglia

This section briefly discusses the main coinages which appear likely to have been familiar in East Anglia before the start of Icenian coinage. Each sub-section relates to a different type of coinage. The Ingoldisthorpe gold coinage in 2.2.4 is considered in more detail. This coinage appears to have been produced in the North Thames area for use in East Anglia.

#### 2.2.1 Gallo-Belgic gold coinage



Figure 2.1. GB E found at Brinton in Norfolk

The earliest coinages found regularly in Britain are the Gallo-Belgic Staters GB A, GB C and GB E and their related Quarter Staters. Studies of these coinages conclude that GB E, the last of these, was issued during the Gallic Wars (e.g. Sills 2003: 330–3; Scheers and

Creemers 2012: 135). Haselgrove concurs in it having been minted during the Gallic Wars but considers that it may have started somewhat earlier (1993: 39).

Sills found the Gallo-Belgic gold coinages to be die-linked (2003: 119, 120 and 230), and to follow a pattern of declining weight and gold content (Table 2.1).

Type	Likely target weight range	Metallurgy	Source of data
GB A (a and b)	7.9g reducing to 7.5g	Early issues c. 77% Au, 21% Ag & 2% Cu falling to 60% – 75% Au in late issues with Cu of c. 5%	Sills 2003:133–50 and 440–56
GB C class 1	7.3g	71.5% Au, 22.7% Ag and 5.6% Cu (average of 5 samples)	Weights: Sills 2003: 233–5 Metallurgy: Northover 1992
2	6.9g		
4	6.4/6.5g		
5/6	6.35g		
GB E class 1	6.35g	59% (4%) Au, 30.6% (2%) Ag and 10.3% (2.2%) Cu (12 samples, SD in brackets)	Weights: Scheers 1983: 340 Metallurgy: Northover 1992
2	6.2/6.25g		
3	6.15g		
4	5.85/5.95g		

Table 2.1. Weight and metal content of the main Gallo-Belgic coinages

GB A and GB C Staters are frequently found in Kent and around the Thames estuary but are uncommon in East Anglia. A typical British distribution is shown in Figure 2.2.

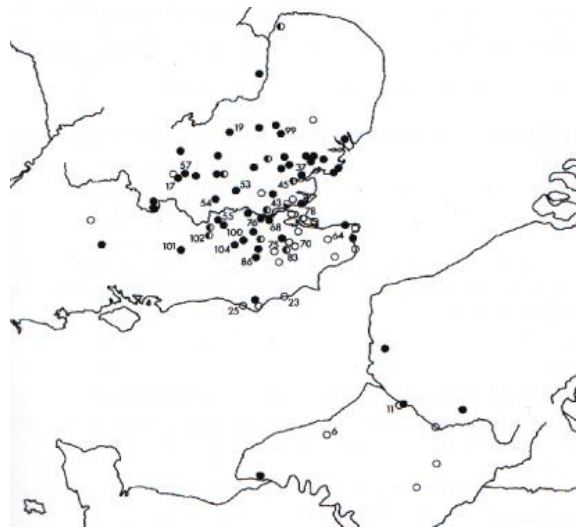


Figure 2.2. The distribution of Gallo-Belgic Ab (from Sills 2003: map 19)

## Chapter 2. The early local Icenian coinage and its predecessors in East Anglia

The GB E Stater has been found throughout East Anglia including in seven hoards, two of which also contained Icenian JA Staters (6.4.1–2). GB E must have been a major factor in the regions familiarity with gold coinage, although stylistically GB C was the prototype for the obverse of its first Stater (5.3.1).

### 2.2.2 British Potins

Potins are cast bronze coins with a high tin content. British production is centred on Kent and Essex and they are thought to be one of the earliest British coinages.



Figure 2.3. 'Thurrock' Potin found at Snettisham

At Ken Hill, Snettisham 145 Flat Linear Potins were found in Hoard C. This was associated with Hoard B, which closed with GB C Staters and an Ingoldisthorpe Quarter Stater (6.2.1). Potins have been found on several sites in East Anglia and probably had a role before the start of local coinage. Potins may have helped familiarise the region with coinage but any closer relationship is unlikely; the two coinages have no stylistic links and have not been found hoarded together.

### 2.2.3 Roman Republican Denarii

The Hallaton hoards indicate that Republican Denarii were present in Corieltavian areas before the conquest (6.6.1).



Figure 2.4. Republican Denarius found at Shernborne, Norfolk

I list below the evidence for their pre-conquest presence in East Anglia, which is not conclusive:

- Worn Republican Denarii are found on East Anglian Iron Age sites such as Saham Toney (Brown 1986: 8–9) and in the revolt period hoards with Icenian coinage (6.5.2).
- Early Icenian Units, such as Bury C and Bury B, have Republican Denarii as prototypes (Figure 5.10)
- Re-cycled Republican coinage is likely to be a major source of silver for the early Icenian silver coinage (4.4.2).

The Denarii that have been found in hoards and elsewhere could be post-conquest arrivals; the Icenian silver could be composed of metal that had already been recycled in Gaul and the use of imagery proves little. Nonetheless I strongly suspect that trade caused Republican Denarii to be familiar in East Anglia prior to local coinage production, and that this familiarisation was a factor in the decision to commence Icenian coinage.

#### **2.2.4 British A and the Ingoldisthorpe coinage**

Ingoldisthorpe Staters were first found in 1989 at Ingoldisthorpe in Norfolk and three of the four subsequent finds have been in East Anglia (Figure 2.6). Their reverses are distinctive but they share obverse dies with North Thames Westerham Staters, also known as British A1. South Thames Westerham Staters are known as British A2. Allen considered British A to be the first British gold coinage (1960: 105); there is now less

certainty about this, but general agreement that it is one of the earliest. Figure 2.5 shows Westerham and Ingoldisthorpe reverses, with the obverse die used with both in the middle.



Figure 2.5. British A1 obverse (centre) with Westerham (left) and Ingoldisthorpe (right)

Until the discovery of the large Great Waltham hoard (PdeJ 58), Ingoldisthorpe Staters were thought to predate the cruder Westerham Staters (Sills 1997; 2000). It is now clear that Ingoldisthorpe Staters were minted in parallel with Westerham Staters, with the earliest reverses in the main die-group being Westerhams (I.1).

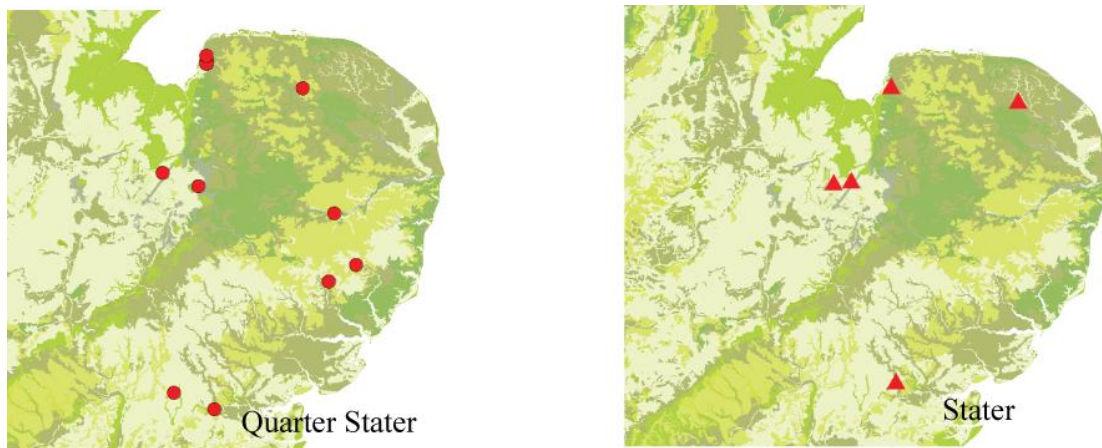


Figure 2.6. Distribution of Ingoldisthorpe types

Although Westerham and Ingoldisthorpe Staters were interspersed in the same production sequence, the former are mainly found in the North Thames area. By contrast the only Ingoldisthorpe Stater found outside East Anglia was in the Great Waltham hoard, the largest component of which was Westerham Staters.

Table 2.2 lists the hoards which contain British A Staters, showing separately Ingoldisthorpe ('A1 Ing'), North Thames Westerham ('A1 West') and South Thames Westerham ('A2 West'), and also showing any Gallo-Belgic Staters present.

<b>Hoard</b>	<b>Area</b>	<b>A1 Ing</b>	<b>A1 West</b>	<b>A2 West</b>	<b>% Ing of A1</b>	<b>GB Staters in hoard</b>	<b>Later British present</b>
Ingoldisthorpe	EA	2	0	0	100	None	No
Welney	EA	2	3	1	40	2A 2C 3E	Possibly
Clacton	NT	0	5	1	0	2 A 2C 34E	Yes
Great Waltham	NT	15	51	2	22	28A 1E	No

Table 2.2. Hoards containing British A1 with associated finds (from de Jersey 2014)

Early British A1 and GB E Staters have a similar metal content (II.1), but the British Staters are heavier with a target weight of 6.35 to 6.5 grams. This weight is similar to that of the earlier, and finer, GB C (Table 2.1). Hoards containing British A1 Staters usually also contain GB E Staters (Table 2.2), and none have been found in hoards that closed with an earlier Gallo-Belgic coinage.

John Sills first identified the Ingoldisthorpe Quarter Stater in 1998, assuming that it related to both Ingoldisthorpe and Westerham Staters (Sills 1998). Its prototype is the less complex design of GB D, the Quarter Stater which relates to both GB C and E. Figure 2.7 shows the clear relationship between the reverses of the two types.



Figure 2.7. GB D (left) and Ingoldisthorpe Quarter Stater reverses

## Chapter 2. The early local Icenian coinage and its predecessors in East Anglia

The distribution of the Ingoldisthorpe Quarter Stater is predominantly East Anglian (Figure 2.6) although three examples are recorded in the Celtic Coin Index with the vague provenance of Essex and another as 'North Essex'. Its distribution and imagery make it likely that this type is related to the Ingoldisthorpe Stater only. The Clacton Quarter Stater (ABC 2356) is probably the lower denomination for the North Thames Westerham Stater.

Most Ingoldisthorpe Quarter Staters seem to have had a target weight of 1.25g to 1.29g with a minority having a target of over 1.45g. The Ingoldisthorpe type is thus similar to later Icenian coinages, with Quarter Staters actually being fifths of a Stater (4.3.3).

Sills (2000) argued that the Ingoldisthorpe types have detail not seen on Belgic gold until the Gallic Wars. He attributed their fine die-cutting to non-local die-cutters, perhaps from Gaul, with the cruder Westerhams, which were then thought to be later, being local die work. He speculated that British A1 may have been issued by Cassivellaunus to finance British resistance to Caesar's second invasion in 54BC. He saw the low weight of the Ingoldisthorpe Quarters as evidence that they, and thus the related Staters, do not predate the Gallic Wars. I suspect that they may be slightly earlier than supposed by Sills as an Ingoldisthorpe Quarter Stater was found in Snettisham hoard B alongside four GB C Staters but without any of the later GB E Staters (6.2.1; Clarke 1954: pl. 13). If they were minted very early in the Gallic Wars, say 58 to 55 BC, this would explain the Snettisham B coin, their weight equating to GB C but their metal content being similar to GB E, and their not having been found with JA Staters (2.4.1).

My die-study shows that Ingoldisthorpe Staters were produced alongside Westerham Staters from a similar alloy, and to the same weight standard. The different reverse dies are not a matter of chronology, but appear to relate to the two differing markets or clients. The finer reverse dies, used for the East Anglian coinage, may reflect

East Anglia's indigenous metal working skills but Sills' attribution of the die-cutting to an experienced non-local die-cutter is probably more logical. However this now appears to be a matter of choice rather than of training.

The largest element of early British A1 Stater production and all later production was of the Westerham Stater, destined for the North Thames area. It is possible that British A1 was produced by a mobile moneyer, who moved between North Thames and East Anglia, transporting obverse dies, but not necessarily reverse dies. However, given the scale of the coinage, it seems more likely that minting took place in a single location in the North Thames area.

The Ingoldisthorpe Quarter Stater is not die-linked to any other type, and it may have been minted exclusively in East Anglia. The general Essex provenances make this less likely, and it was probably produced alongside the Stater.

The Ingoldisthorpe types were produced at a time when the large quantities of GB E Staters had reached Britain, probably early in the Gallic Wars. Irrespective of where they were minted, they reflected a desire for a local coinage with distinctive imagery, and were a major step towards an exclusively East Anglian coinage. The quality of imagery seems to have been of more importance in East Anglia than in North Thames. This may be indicative of East Anglian coins being seen as prestige objects alongside their monetary role, an idea which is discussed later in this thesis.

### **2.3 The coinage of early local period**

The remainder of this chapter discusses the first coinage minted in East Anglia, that of the early local period. The main gold coinages of this period are stylistically unrelated to the silver, and are reviewed chronologically in 2.4. The review shows how the pattern of minting the gold changed, and the coinage became debased, before being superseded by denominational coinage in the following period. The many types of silver are considered

in 2.5. Units are considered first followed by Half Units. Possible links between these two denominations are discussed at the end of the section. Two rare Quarter Staters are examined in 2.6; these appear to relate to the early local period but do not form part of the main gold coinage.

### 2.4 Early local gold coinage

The first gold types unequivocally produced in East Anglia were the JA Stater and Quarter Stater (Figure 2.8) which were superseded by the closely related JB Stater. All had obverse imagery based on Gallo-Belgic gold and a distinctive wolf-like animal on the reverse, both of which are discussed in 5.3. Table 2.3 reveals the much greater issue size of the JB Stater. As several JA Stater dies have been discovered since the database was closed also shown are Esty projections of the likely original die populations.



Figure 2.8. From left: JA Stater, JB Stater and JA Quarter Stater

Type	Die groups	No.	Obverse dies	Reverse dies	Plated coins	Esty forecast	
						Obverse dies	Reverse dies
JA Stater	4	114	14	24	2	19	32
JA Quarter	N/A	4	2	3	-	3	8
JB Stater	18	396	26	80	67	27	101

Table 2.3. Early local period gold types

### 2.4.1 JA Stater and Quarter Stater

The JA Stater is found widely dispersed across the region (Figure 2.9). A few of the earliest obverse dies are inconsistent, and are discussed in 5.3.1. The remaining dies are similar, except that the form of the ‘fibula’ on the obverse, and of small pellets below the wolf, separates them into three varieties. Two varieties each coincide with a die-group, and the third with die-groups 3 and 4 combined (II.3).

<b>Die Group</b>	<b>No.</b>	<b>Obverse dies</b>	<b>Reverse dies</b>	<b>Coins per die</b>
<b>1</b>	24	9	8	2.8
<b>2</b>	5	1	3	2.5
<b>3</b>	1	1	1	1
<b>4</b>	84	3	12	11.2
<b>Total</b>	114	14	24	6
<b>Plated</b>	2			

Table 2.4. J A Staters

The two main die-groups of JA Staters, 1 and 4, (Table 2.4) probably represent a single chronological sequence with two main periods of activity and I expect die-groups 3 and 4 to eventually combine. Die-group 1 is composed of the earliest JA Staters which have a target weight of some 6.15g to 6.25g (Table II.4) which is similar to class 2 of GB E and some 3% to 4% less than the Ingoldisthorpe Stater. The only metal analysis from this die-group reveals a composition broadly similar to GB E and the Ingoldisthorpe Stater (4.4.1).

The minting of die-group 1 was unusually intense with several dies being used simultaneously. Weight and gold content were higher than for later die-groups (Tables II.4 and 4.17) and coins from this die-group have been found hoarded with GB E Staters (6.4.2). There is no significant difference in distribution between die-groups 1 and 4,

however the few finds of die-group 2 Staters are all in the south-west of the region, and this die-group may represent parallel production from a separate site (Figure 2.9).

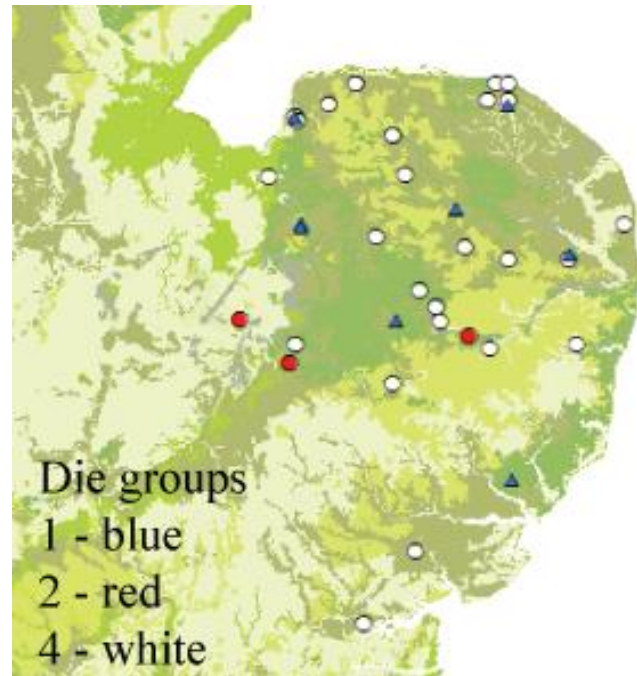


Figure 2.9. Distribution of JA staters

The number of known coins per die reveals a survival rate for die-group 4 which is much higher than for other die-groups (Table 2.4). An analysis in 6.4.2 concludes that, despite the absence of recorded hoards, this may be caused by an episode of hoarding towards the end of JA Stater production.

The JA Quarter Stater has the same style and colour as early JA Staters of die-group 1. The only four known examples are struck from two obverse dies and three reverse dies and the Esty formulae indicate that another obverse die and five more reverse dies remain to be discovered. There are only two recorded weights, 1.53g and 1.59g, which are approximately a quarter of the weight of the Staters of die-group 1, and only two recorded provenances, from north-west and central Norfolk.

The evidence implies that minting of JA Staters probably started during or shortly after the Gallic Wars using recycled GB E's as the raw material. Initial production was

intense and the Quarter Stater was minted in substantial volume alongside early JA Staters; Stater production then slowed and the Quarter Stater was discontinued. Most minting was from a single location and there may have been a small level of output from a second site.

#### 2.4.2 JB Stater

The JB is similar to the JA Stater with both obverse and reverse imagery reversed. I have not been able to fully unravel the organisation of this complex coinage, which has more recorded dies than any other Icenian Stater, and 18 die-groups. The organisation of minting towards the end of its production is clearer; this coincided with a major episode of hoarding resulting in a high survival rate per die. Many early dies are known from a single example, implying that the die count will grow and some die-groups may combine.

The size and complexity of the issue, and the rarity of early dies in hoards from late in the issue, imply that the coinage was minted over an extended period. My analysis of hoards shows that at least three later die-groups were produced in parallel (6.4.2) and I have used this with stylistic and other evidence to divide the coinage into four sub-types, a reverse die from each of which is shown in Figure 2.10.



Figure 2.10. Typical reverse dies from JB sub-types A–D

The die-groups allocated to each sub-type are shown in Table 2.5.

<b>Sub-type</b>	<b>Die-groups</b>	<b>No.</b>	<b>Obverse dies</b>	<b>Reverse dies</b>	<b>Coins per die</b>
<b>A</b>	8 (1–8)	97	9	23	6.1
<b>B</b>	1 (9)	13	1	3	6.5
<b>Ci</b>	6 (10–15)	34	7	17	2.8
<b>Cii</b>	1 (16)	157	2	23	12.6
<b>D</b>	2 (17–18)	90	7	14	7.7
<b>Poor</b>		5			
<b>Total</b>	18	396	26	80	7.3
	Plated	67			
	Total	463			

Table 2.5. Die-groups for JB Stater

Sub-type A is the most cohesive stylistically, and its eight die-groups cover the entire period of production. It includes die-group 1, the coins of which have the highest gold content of any JB Staters to have been tested (Table 4.17), and the reverse dies of which are the most similar to JA Stater reverses. These factors indicate that die-group 1 was minted immediately after the JA Stater, whereas hoard evidence implies that die-group 8, the last in the sub-type, was minted in the final stages of JB production (6.4.2).

Sub-type C is also cohesive stylistically and includes the very early die-group 10 and the large, and late, die-group 16. Die-group 16 is so large that in most analyses I have shown it separately as sub-type Cii. Sub-type D is composed of two late die-groups and sub-type B comprises a single late die-group, which stylistically appears to have been issued in parallel with the final die-group of sub-type A.

Non-hoard finds of the sub-types reveal some differences in distribution (Figure 2.11):

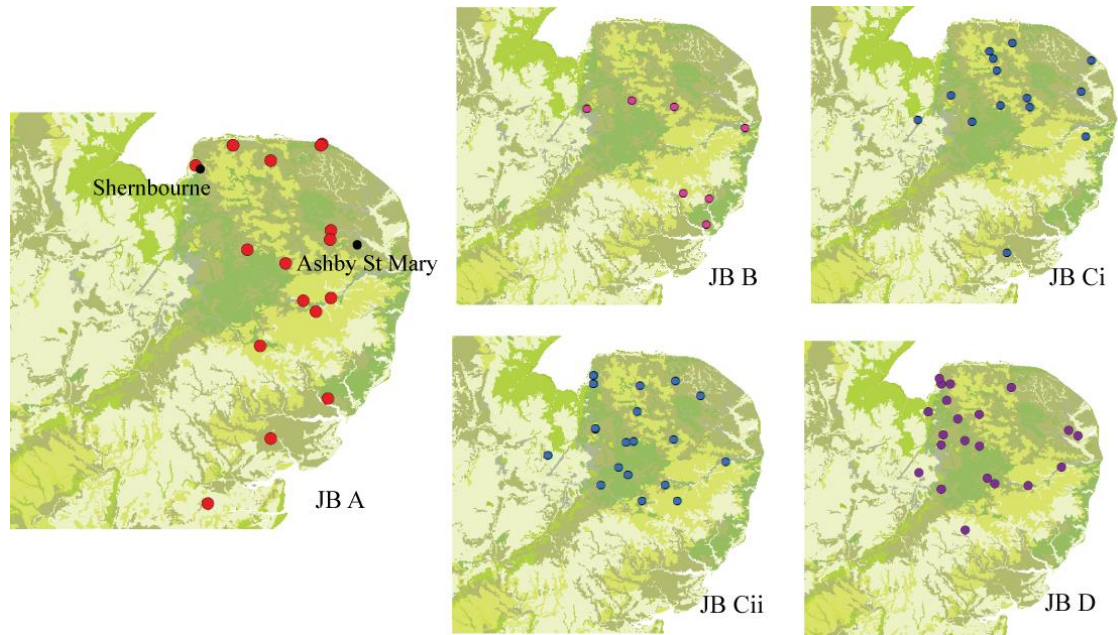


Figure 2.11. Distribution of JB sub-types

Sub-type D has a clear focus in the northwest of the region, possibly around Snettisham. Sub-type C may be centred on Saham Toney in central Norfolk; Ci spreads north and Cii both north and south into Breckland. Sub-type A has its main focus to the east of the centre of the region and is rare in the west, and Sub-type B has the most southerly focus of the sub-types.

The analysis of hoards, the details of which are in 6.4.2, provides further evidence of sub-regional distribution. The Ashby St Mary hoard from the east is mainly composed of JB Staters of sub-type A (die-group 8), with some sub-type Cii, but no sub-type D, which usually found the furthest from the hoard. Sherborne A hoard from the north-west included Staters of sub-types Cii and D, the most local to the hoard, but none of sub-type A, which is more distant. The locations of these hoards are shown on the JB A map of Figure 2.11.

The allocation of die-groups to sub-types has facilitated the examination of the coinage, but is not entirely satisfactory. The above analysis implies that JB Staters were being produced in parallel from at least three locations. I think that minting was more complex than this, as some die-groups of sub-type A appear to have differing

distributions. Sample sizes are small, but die-group 1 has a North Norfolk focus whereas the few finds of die-groups 2, 4 and 5 are mainly from the Waveney valley (Figure 2.12). The distribution of the die-groups of sub-type C is less clear but also seems to show some sub-regional variation (II.14).

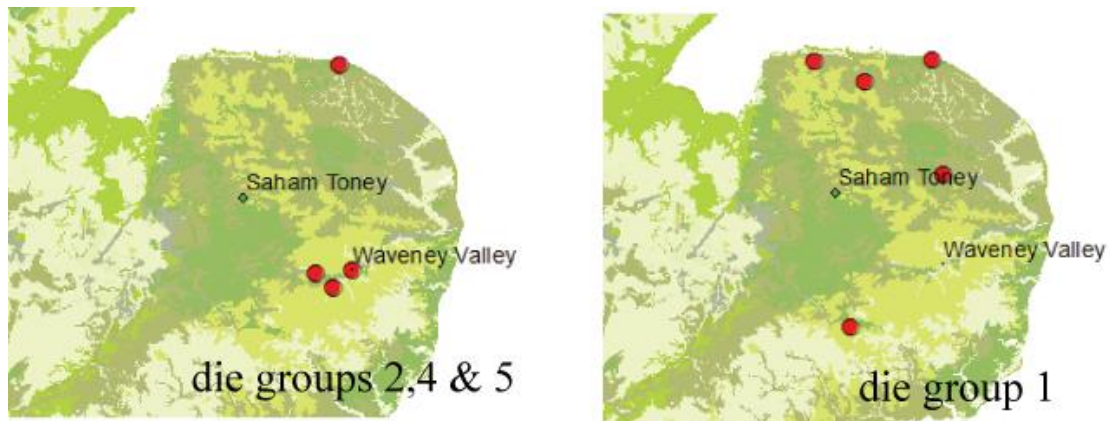


Figure 2.12. Distribution of JB Sub-type A die-groups

Both weight and precious metal content declined during JB Stater production, with late production of sub-types Cii and D having less than 20% gold content (Table 4.17). Later die-groups show an increasing weight range, implying that control over production weakened. An analysis of a chronological sequence of die-group 8 coins from the Ashby St Mary hoard showed weight declining from die to die (Table II.8).

There are numerous plated JB Staters, many of which can be associated with specific ‘official’ dies. Their production seems likely to have involved some form of hubbing. Plated coins are discussed in II.5.6 and the unusual silver-coloured plated JB Staters from the Hunstanton II hoard are also discussed in 6.4.3.

The JB Stater was produced in much greater volume than the JA Stater and the evidence implies that ultimately three or more sites operated in parallel, each producing in a distinctive style. I suspect that there were other sites which produced small quantities of JB Staters, and that their output is represented by some of the smaller die-groups. Present sample sizes are insufficient to confirm this. Late JB production went through a period of

debasement and the end of minting coincided with a major episode of hoarding. I suspect that the debasement took place rapidly in view of the die to die reductions in weight in die-group 8, but more precision is not possible as production volumes relative to time are unknown.

### 2.5 Early local silver coinage

The silver coinage of this period comprised 16 types and sub-types of Unit (Table 2.6) and five types of Half Unit. I discuss firstly the earliest Units, Bury A, both sub-types of Bury C and Bury H, then the three largest subsequent types Bury B, LFA and LFC, followed by the remaining types of Unit. I discuss the different survival rates of Bury A and Bury B in 2.5.4 and finally consider the Half Units. Each type of Half Unit was likely to have had a denominational relationship with a Unit, or a succession of Units, and some possible relationships are discussed in 2.5.5.

Type	No. coins	Main die groups	Obverse dies	Reverse dies	Plated coins	Weight grams
Bury A	172	2	12	17	9	Target 1.4 – 1.44g
Bury C 1	28	1	8	9	-	Target 1.35 – 1.39g
Bury C 2	14	1	1	2	-	Target 1.35 – 1.39g?
Bury B	117	5	10	30	2	Target 1.35 – 1.39g
LFA	77	1	10	27	3	Target 1.3 – 1.34g
LFC	123	3	16	19	32	Target 1.3 – 1.34g
Bury D	15	1	2	5	-	Target 1.34 – 1.39?
Bury E	4	1	4	2	-	1.11 & 1.18
Bury F	2	1	1	2	-	1.27 & 1.39
Bury G	2	1	1	2	-	1.41. & 1.48
Bury H	4	2	2	4	-	None intact
LFB I	12	1	2	5	-	Target 1.3 – 1.4?
LFB II	6	1	2	5	2	Target 1.25 – 1.35?
LFB III	3	1	1	1	-	1.08
Irstead B	9	1/2	2/3	5	-	Maximum 1.18
Spiral	1	1	1	1	-	0.83

Table 2.6. Early local Units – key statistics

Bury A and Bury C, the earliest types, have the most realistic form of representation of the early Units; they are stylistically close to both continental and other early British coinages. Subsequent types became increasingly less representational but with extremely skilfully cut dies.

### 2.5.1 The first issues of early local period Units

The earliest types of Unit were Bury A, both sub-types of Bury C and Bury H (Figure 2.13). Hoard evidence indicates that Bury A and C were broadly contemporaneous (6.4.3) as does the similarity of some reverse dies (Figure 2.14).



Figure 2.13. The earliest Units

Bury H is very similar to Bury A, but with a retrograde obverse. Bury C Units and early JA Staters were found together in the Sculthorpe Hoard (6.4.2), which implies that Units were probably being minted soon after the first gold coinage was minted.

There are stylistic similarities between the reverses of the earliest Units and those of North Thames Whaddon Chase Staters (ABC 2341). This can be seen in the Stater reverse illustrated in Figure 2.14 and is also discussed in II.6. The Whaddon Chase Stater is somewhat lighter in weight than early JA Staters and is probably contemporaneous with late JA or early JB Staters. Thus hoard and stylistic evidence appear to conflict in terms of how soon the silver coinage started after the commencement of Icenian gold, and neither is definitive. However the use of perceived prototypes as dating evidence is always tenuous and I suspect that the silver coinage started within a few years of the gold.



Figure 2.14. From left: Bury A die 6, and Bury C die 4 and Whaddon Chase Stater

The obverses of Bury A and Bury C have differing prototypes, the former Gallo-Belgic whereas the latter is Roman (see 5.4.1). There are several examples of Bury C dies being amended; these are discussed in 5.4.3.

Most examples of Bury A belong to die-group 2, much of which may have been produced in a single burst of activity, as it is unusually heavily die-linked. Two reverse dies seem to have been used simultaneously for much of the production, and two obverse dies may also have been in use at times. There is another small die-group and a number of unlinked dies but I have found no evidence to suggest that these represent production from secondary locations.

The two Bury C sub-types are separated by minor design details and have different distribution patterns; the first is focussed on central Norfolk, the second more southerly. The main die-group of Bury A has a more general distribution, but a stronger presence in the south-west of the region than either Bury C sub-type (Figure 2.15). Bury H is found in the Waveney valley in the east of the region (Figure 2.24).

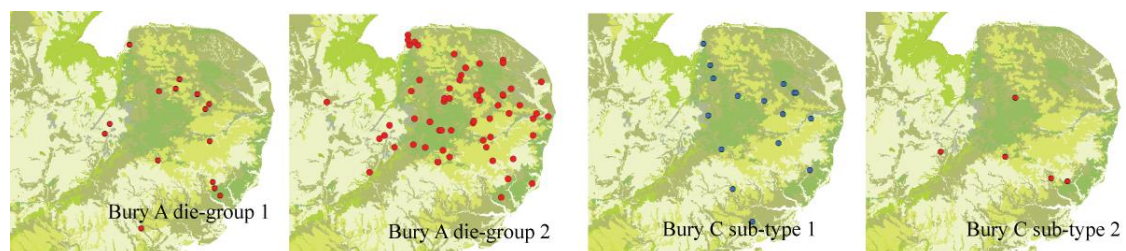


Figure 2.15. Distribution of Bury A and Bury C

The distribution analysis is not definitive but taking all evidence together I suspect that the earliest Icenian silver coinage was produced at four different sites.

### 2.5.2 LFA, LFC and Bury B

Stylistic, hoard and weight analysis indicates that LFA and LFC followed but possibly overlapped Bury A and Bury C. LFA and LFC are both struck on large flans and are deeply dished with a similar style of right-facing horse on the reverse.



Figure 2.16. Early local Units

Both have more stylised imagery than the earlier coins. The obverse dies of LFA and many of LFC dies display complex Chimirri Russell effects, whereby three-quarter profiles or full-frontal faces are seen on rotation (5.4.1) and the decoration above the horse on the reverses also sometimes create hidden faces (5.4.1).

The horse on the reverse of LFC is placed over a vertical pole or branch derived from a Carthaginian prototype (figure 5.22). The horse on LFA appears more ethereal, an impression given by its surrounding detail which includes what appears to be a flame emerging from its mouth. This detail also occurs on many subsequent types (Figure 2.17).



Figure 2.17. 'Flame' from mouth of LFA reverse (die 27)

During the die-study I identified a coin struck by reverse die 17 of LFC, one of the earliest LFC dies, and obverse die F of LFA (Figure 2.18); the coin shows no obvious signs of being plated but its whereabouts are unknown. This die-link implies that production of LFC started when LFA was well underway and that there was a period of overlap, possibly with some production from a common site. If the coin is plated it would still imply that the two types were broadly contemporaneous.



Figure 2.18. Mule showing die-link between LFA and LFC (CCI 78 0085)

LFC has a distinctive distribution focussed around Breckland whereas LFA has a more widespread distribution with more recoveries from the east and south-east. LFA may well originate in the Waveney valley on the Norfolk-Suffolk eastern border where many of the earliest strikes have been found (Figure 2.19).



Figure 2.19. From left: distribution of LFC, LFA and Bury B

The majority of the dies of LFA form a single die-group which shows clear chronological change. Early obverse and reverse dies of LFA each carry a diamond shaped icon which was later replaced by a hollow star. It is likely that all dies will eventually be found to be part of a single die-linked sequence. There are a number of uniface coins with plain obverses which are likely to be late strikes from die F of the main die-group.

Appendix II.14 includes two examples which seem to show the re-cutting of LFA dies, probably before they were used. Many LFA reverse dies, particularly the uniface ones, have very similar horse bodies but differ in the ancillary detail suggesting that punches may have been used to create key design elements.

There are five LFC die-groups but all have a similar distribution, stylistic evidence suggests that the type was produced in a single continuous sequence. Coins struck at the end of die-group 3 are often very irregular; see Figure 2.20, implying that minting was hurried. Late die-group 3 and die-group 4 obverses are much cruder than the earlier dies, but the lack of care over the flans does not recur in die-group 4. This implies an urgent need for coinage about halfway through production of the type, but that production subsequently reduced to more normal levels of activity. It is likely that the target weight of LFC was reduced over the course of its production (II.15).



Figure 2.20. Poorly struck die-group 3 coins from dies 6 and 7

The number of plated examples of LFC is unusually high as 28 plated examples were found in the Hunstanton II Hoard (see 6.4.3).

The last of the bigger issues of early local Units is Bury B which was struck using more dies than any other Unit of the period. Bury B is probably the successor coinage to Bury A and Bury C, and is contemporary with later LFA and LFC. The stylised head on the obverse developed from Bury C (Figure 5.10), and additional decorative elements are used to create an excellent example of the Chimirri Russell effect (Figures 5.16–17). Both obverse and reverse dies include the hollow stars which appeared part-way through the production of LFA; the concentric circle patterns on the decorative reverse are also seen on LFA.

Bury B has three main die-groups which have some differences in distribution (Figure 2.21), although the imagery does not vary by die-group. Overall distribution differs from LFA and LFC in being focussed in central Norfolk in the Saham Toney to Crownthorpe area (Figure 2.19).

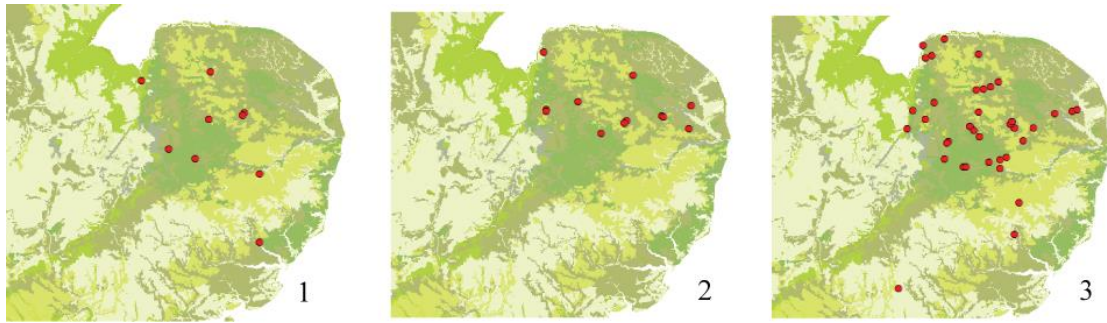


Figure 2.21. Distribution of Bury B die-groups

### 2.5.3 Smaller issues of early local period Units

This section discusses the nine types of Unit shown in Figure 2.22, although Irstead B and the Spiral Unit may date from early in the first denominational period. Most were issued in small quantities using only two or three dies yet they include some of the most beautiful and complex examples of Icenian numismatic art.

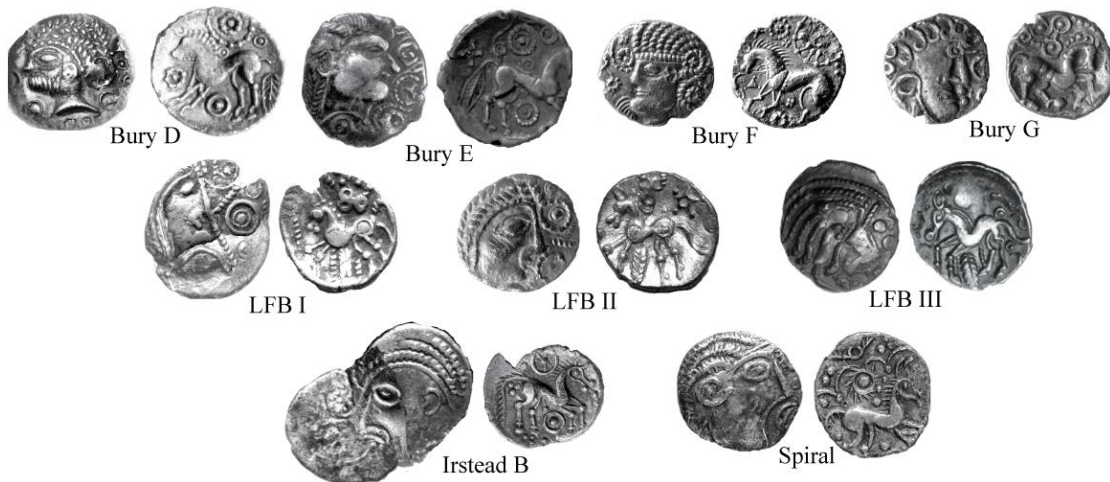


Figure 2.22. The rarer local Units

Bury D and Bury F appear to be both very early. Bury F has a diamond symbol which may be related to that on early LFA dies; they also share other design elements and a similar weight. Bury D is probably from the Snettisham area (Figure 2.23).

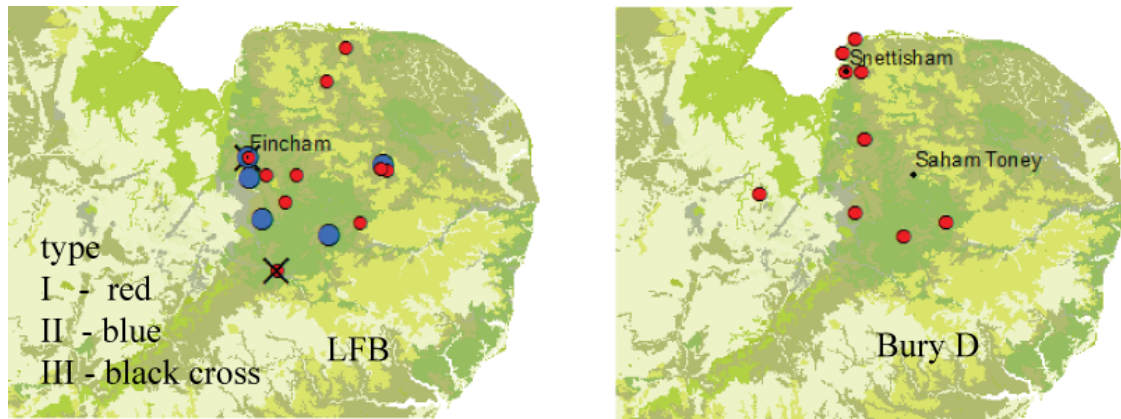


Figure 2.23. LFB and Bury D distribution

Bury E is unusual in having two different styles of both obverse and reverse dies within its six known dies. Unlike most other smaller issues the four recorded finds are widely dispersed. These factors would suggest the issue was originally large if three of the four known coins did not share a single reverse die. The type probably dates from the middle of the early local period, as the second style of reverse includes a crude hollow star.

The three sub-types of LFB have hollow stars similar to those of later LFA dies. They are very decorative with strong stylistic links with LFC. I suspect that they are contemporary with, and probably related to these two types. The LFB sub-types are found in the south-west, with a strong focus in and to the south of Fincham (Figure 2.23).

The obverse of Bury G is unusually crude but the reverse has a few stylistic links to other Icenian types. The high weights suggest an early type. The only two examples were allegedly found at Bury St Edmunds implying that it was a very local type.

Irstead B has the open form of horse's head of the first denominational period but its obverse is clearly based on LFA. Recoveries are from the south-west of the region with a high proportion of finds from the fens and fen edge (Figure 2.24). I suspect that this is a local issue which may slightly postdate the early local period.

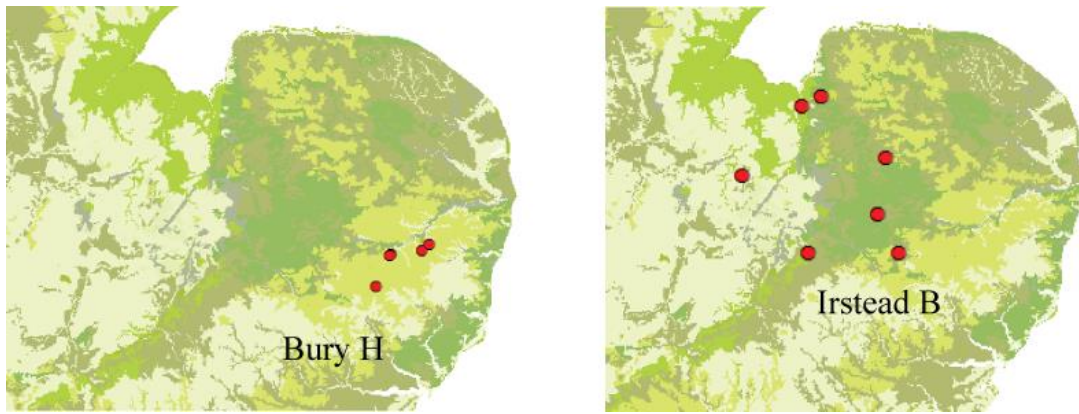


Figure 2.24. Bury H and Irstead B distribution

The Spiral type is similar to Bury G in having a crude obverse and a more sophisticated reverse but with an open form of horse's head. This type may also date from early in the first denominational period.

#### 2.5.4 Observations on two larger issues of early local period Units

The data for Bury A and Bury B provide an interesting contrast. Bury B has more known dies, 40 compared to 29, but these have yielded significantly fewer surviving coins (116 compared to 172), resulting in 2.9 known coins per die for Bury B and 5.9 for Bury A. It is revealing to consider the possible reasons for this difference.

Bury A has two main die-groups but was probably produced in a single sequence at one location; the main die-group has multiple links between dies which implies a period of intense production with several dies being used at once. In contrast Bury B seems to have been minted at several sites and its die-groups look orderly with only a single obverse die being used at any one time. The likely intensity of production of Bury A is also revealed by die condition. Unlike Bury B, several Bury A dies were used until they were extremely worn; three examples are shown in Figure 2.25, together with the only Bury B die that has comparable wear. These factors indicate that a higher output per die was probably achieved for Bury A than from the more fragmented production of Bury B.



Figure 2.25. From left: Worn dies, Bury A dies D, E and F and Bury B die E

A further factor which may have caused the higher survival rates of Bury A is that there is some evidence of hoarding of this issue (6.4.3). The circumstances that gave rise to this hoarding may have been a factor in the intensive production already discussed. Despite these observations, Bury A does not appear to be an emergency coinage issued over a short period, as finds of plated coins indicate that it was copied to a greater extent than the other major Bury coinages (Table 2.7). I suspect that its high volume, centralised production and wide distribution led to it being well-known and thus a rewarding target for forgery.

Type	Official coins	Plated coins	Forged obverse dies	Forged reverse dies
Bury B	117	2	2	2
Bury A	172	9	3	4
Bury C	44	-	-	-

Table 2.7. Plated examples of the main Bury types

### 2.5.5 Half Units



Figure 2.26. Early local period Half Units

Type	No.	Obverse dies	Reverse dies	Likely target weight
Bury Butterfly	7	3	4	0.6g–0.7g
Bury Face-Horse	1	1	1	Actual 0.68g
LFB	1	1	1	Actual 0.59g
Bury Pallas I	5	3	4	0.65g–0.8g
Bury Pallas II	2	1	2	0.5g–0.6g
Pallas/Snett	4		2	

Table 2.8. Early Half Units, including 4 Pallas/Snettisham from the denominational period

These Half Units are the least known of any important grouping of Icenian coins (Figure 2.26; Table 2.8). Recent years have seen an increase to 16 known examples from only four known prior to 2000, a growth probably attributable to the increasing sensitivity of metal detectors. Most dies are known from a single example and I expect many more dies and die-links to emerge in the future.

The Half Units were struck on broad, thin, flat flans, replaced in the denominational periods by smaller but thicker flans. The flans are unusual for Icenian coins as they are similar in size to the engraved area of the dies. A pelleted outer-border can be seen on many examples, evocative of that seen on certain Bury C dies, and identical to that on the closely related coins of the Ambiani (DT 341–8).

I suspect that the LFB Half Unit formed a denominational relationship with sub-type I or II of the LFB Unit, but I have been unable to relate the unique example of the Bury Face-Horse Half Unit to any other denomination. The remainder of this section deals with the two better-known Half Unit types: Bury Pallas and Bury Butterfly. I refer to these below as ‘Pallas’ and ‘Butterfly’ respectively.

Both Pallas and Butterfly had obverse imagery and elements of reverse imagery likely to have been derived from the coinage of the Ambiani (5.4.4). I think it likely that

each had a denominational relationship with at least one of the early local period Units. Each has general stylistic links with early Units such as Bury C and Bury A which are discussed in II.17–8, but neither has been found in association with specific Units and the stylistic links do not identify specific relationships.

There are two varieties of Pallas which are not die-linked, but which are likely to form a sequence which encompasses the entire early local period. The earliest dies are closest to the Ambiani prototype (5.6.8) and the final coins struck from a Pallas obverse die are of the Snettisham denominational type.



Figure 2.27. Strikes from Bury Pallas Half Unit obverse die D

Figure 2.27 shows two coins struck from Pallas obverse die D. That to the left is a typical late Pallas reverse die. On the right a worn example of the same obverse die is paired with a Snettisham Unit reverse die and is struck onto a smaller and thicker flan. Die D is also found paired with a Snettisham denominational period Half Unit die.

Although sample sizes are small

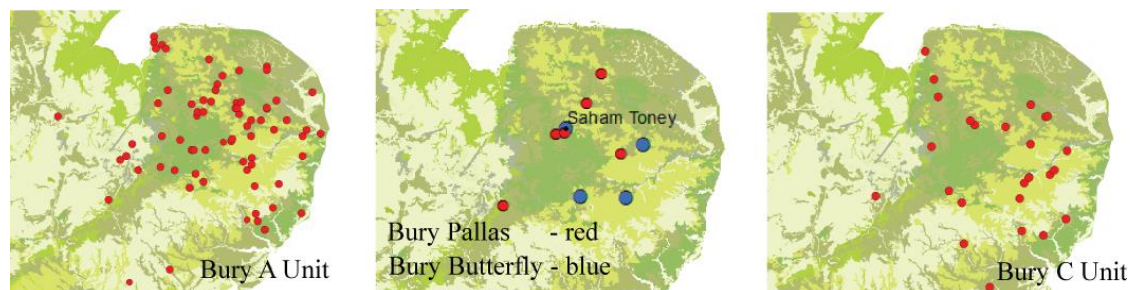


Figure 2.28 indicates that the Butterfly distribution is to the south-east of Pallas. The figure also shows the distribution of Bury A and Bury C which were probably minted at a similar time as the earliest Half Units.

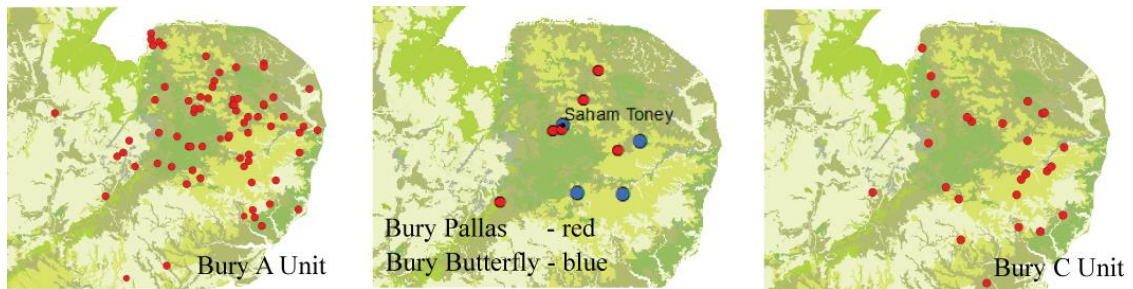


Figure 2.28. Distribution of Half Units and Units

Although the distribution evidence is rather tenuous, I suspect that Pallas is related to Bury A; and Butterfly to Bury C, and in both cases to any directly superseding issues of Units.

## 2.6 Unusual Quarter Staters

These two very rare Quarter Staters are likely to date from either the early local period or early in the first denominational period.



Figure 2.29. Irstead B Quarter Stater (left) and Bury Quarter Stater (right)

Type	No.	Obverse dies	Reverse dies	Weight	CPD
Irstead B	2	1	1	1.03	2.0
Bury	1	1	1	1.17	1.0

Table 2.9. Rare local Quarter Staters

The reverse of the Irstead B Quarter Stater is stylistically similar to the Irstead B Unit. They even share the unusual pellet ended lines which lead to the lower ring on the reverse of the Quarter Stater, otherwise only seen on the Unit and die 15 of the Snettisham Stater. The only known findspot is from near Beccles in Suffolk, whereas the Units are found in the west of the region. A denominational relationship with the Unit is possible as gold coinage is more dispersed than silver, but it is probably more likely that they were simply struck from dies cut by the same die-cutter. The obverse is similar to the Early Snettisham Quarter, thus this type may date from early in the first denominational period.

The Bury Quarter Stater has a large flan and is heavier than most Snettisham Quarter Staters. The realistic horse's head, chain like device below the horse and the form of pelleted outer border imply an early date, possibly contemporaneous with Bury A and C. The only example was found at Saham Toney.

## **2.7 Summary and conclusions**

I have considered the coinages which seem to have been present in East Anglia prior to Icenian coinage and which probably created a suitable environment for local production. The first gold coinage present in any volume was the GB E Stater of the Gallic Wars which may have been the source of metal for the first Icenian Staters. I think it most likely that Roman Republican Denarii were also present but have found no definitive proof of this.

I examined in some detail the Ingoldisthorpe coinage minted in the North Thames area which I think was probably the first coinage primarily intended for East Anglian use. I then addressed the first gold coinage minted in East Anglia, the JA Stater and its successor, the JB Stater. These spanned the early local period. Production started in a burst of activity but continued over an extended period, with the final output of JB Staters being produced in at least three locations and becoming much debased. I have estimated the

## Chapter 2. The early local Icenian coinage and its predecessors in East Anglia

duration of the early local period at c. 40 years from about 55 BC. Such an estimate allows for: the gradual stylistic development of these types, the hoards of late JB Staters containing few of the earlier JB Staters and usually no JA Staters, the development of sub-regional production, the large number of plated examples of later JB Staters and the scale of production. The production accuracy and imagery of JA and JB Staters are explored in Chapters 4 and 5.

I have shown that there were many types and sub-types of silver Units during the early local period. Some were large issues, widely distributed across East Anglia; others were minted using only two or three dies for very local usage. There were also a small number of types of Half Unit, whose production continued throughout the period. The silver coinage has no stylistic links with the gold, and its imagery becomes increasingly sophisticated and remarkable during this period; this is explored in Chapter 5.

I have found that most production during the period appears to have been relatively orderly, but two die-groups show an unusual number of die-links implying that production was exceptionally intense. These were the first die-group of the JA Stater and the main die-group of Bury A. It appears reasonable to speculate that the former may be related to the events which stopped Gallo-Belgic coinage reaching East Anglia after class 4 of GB E. The intense production of Bury A may be connected to the same events but this is uncertain, as the limited evidence of relative dating is ambiguous. The final debased issues of gold coinage also show some signs of hurried production. These coincide with, and are probably related to, an episode of hoarding at the end of the early local period, and the introduction of denominational coinage. These will be discussed later in the thesis.

## **Chapter 3 The mints and coinages of the denominational periods**

### **3.1 Introduction**

In this chapter I examine the Icenian coinage of the denominational periods, when gold and silver coinage was produced in stylistically linked Issues. I start with an overview of the three denominational periods and their three main mints. Each mint is then examined separately, examining their unique features and summarising their Issues. I discuss at the end of the chapter a number of East Anglian types which I have not linked to a major mint; most of these are smaller and more local.

A detailed illustrated description of each type is given in Appendix III. Photographs in both this chapter and Appendix III are not to scale and in the latter are often illustrated typical examples, rather than the finest available. 1.2x scale images of each die are shown in Appendix I.

### **3.2 Overview of the denominational periods**

The gold coinage of the latter stages of the early local period became severely debased and subject to major fluctuation in weight, the three parallel sequences of this coinage (JB subtypes A, Cii and D) all ceasing production at about the same time. This coincided with an episode of hoarding and the introduction of the first denominational coinages, which had much finer gold Staters of tightly-controlled weight. It seems likely that this numismatic transition reflected an underlying period of political turbulence and change.

The new denominational coinage had no stylistic relationship with the earlier JA and JB gold coinages. However there is stylistic continuity from the silver coinage of the early local period. Aspects of the imagery are indebted to coinage of the North Thames area. These relationships are discussed and illustrated in this chapter.

I have separated the denominational coinage into three periods and have identified three major mints. In the earliest period of denominational coinage only two mints, A and C, appear to have been active. Mint A struck four consecutive Issues whilst Mint C produced only the Saham Toney Issue (Table 3.1).

Issue	Stater	Quarter Stater	Unit	Half Unit
Snettisham	25	28*	33	17*
Plouviez	19		18	
Irstead	18	22	15	4
EBH	18		13	12
<b>Total Mint A</b>	<b>80</b>	<b>50</b>	<b>79</b>	<b>33</b>
<b>Saham Toney – Mint C</b>	<b>-</b>	<b>5</b>	<b>26</b>	<b>-</b>

Table 3.1. Known dies for Issues of the first denominational period

Included in the asterisked totals for Snettisham Quarter Staters and Half Units are 6 and 3 dies respectively that may relate to the early local period.

There are differences in the overall distribution of the output of each mint. The Units of Mint A are concentrated to the west: the fen edge, the Snettisham area and around Breckland. Those of Mint C have a greater presence in the east of the region and in particular in the Waveney Valley (Figure 3.1).

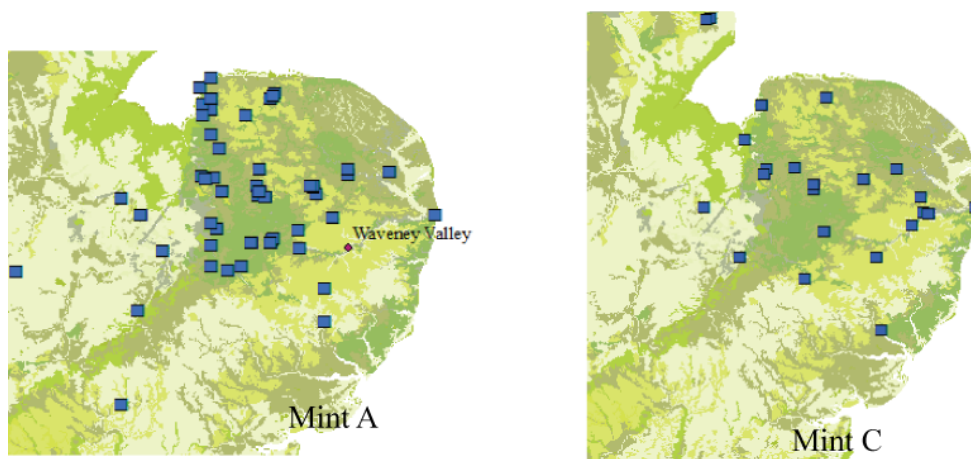


Figure 3.1. Distribution of Units produced during the first denominational period

Chapter 3. The mints and coinages of the denominational periods

The mid-denominational period saw the introduction of back-to-back crescents as a key iconographic element on at least one denomination of each Issue of coinage. The start of this new period coincides with another hoarding horizon of gold coinage, new Issues from Mints A and C and the start of production from Mint B. These factors point to the new period being also somehow linked to political change.

In the final denominational period inscriptions were applied to the output of Mints A and C, the period ending with the cessation of Icenian coinage. There is no indication of hoarding at the transition from the mid- to the final period; the separation of these periods is a convenient construct that probably had little or no contemporary meaning.

The number of dies used by each mint during the final two periods provides an indication of their relative output. Mint A continued to dominate gold production, but its Unit production was rivalled, and may have been ultimately exceeded by Mint B. Mint C was relatively small (Table 3.2).

In the mid-denominational period Mints A and B had similar distributions, but that of Mint C was more restricted. Findspots of broadly contemporaneous Units from each mint are shown in Figure 3.2.

Issue	Stater	Quarter Stater	Unit	Half Unit
BHB	33	5	70	12
BHC	18	4	141	24
Anted	7		72	9
Ecen			73	30
<b>Total Mint A</b>	<b>58</b>	<b>9</b>	<b>356</b>	<b>75</b>
EPH(A)	2		89	17
LFH			182	
<b>Total Mint B</b>	<b>2</b>	<b>-</b>	<b>271</b>	<b>17</b>
EPH(B)	2	4	33	6
Aesv/Saenv/Ece B			34	
<b>Total Mint C</b>	<b>2</b>	<b>4</b>	<b>67</b>	<b>6</b>

Table 3.2. Known dies of the main mints during the final two denominational periods

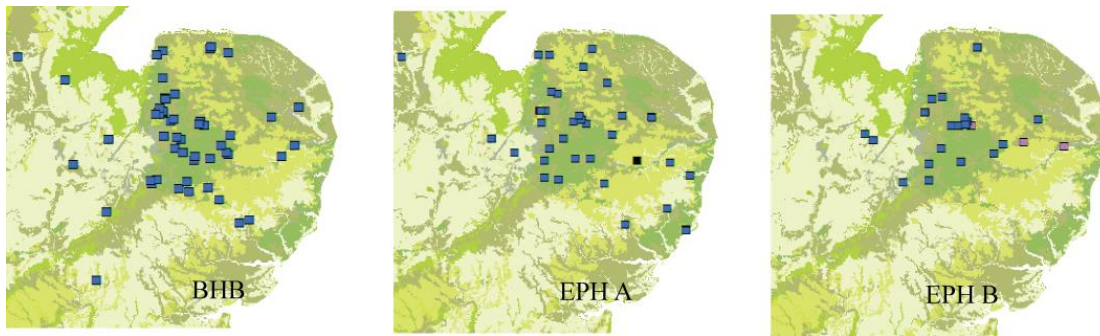


Figure 3.2. From left: mid-denominational period Units from Mint A, B and C

The distribution of non-hoard coinage from the final denominational period shown in Figure 3.3 presents a similar picture but Mint C has a stronger presence on the fen edge than in the previous period (Figure 3.3).

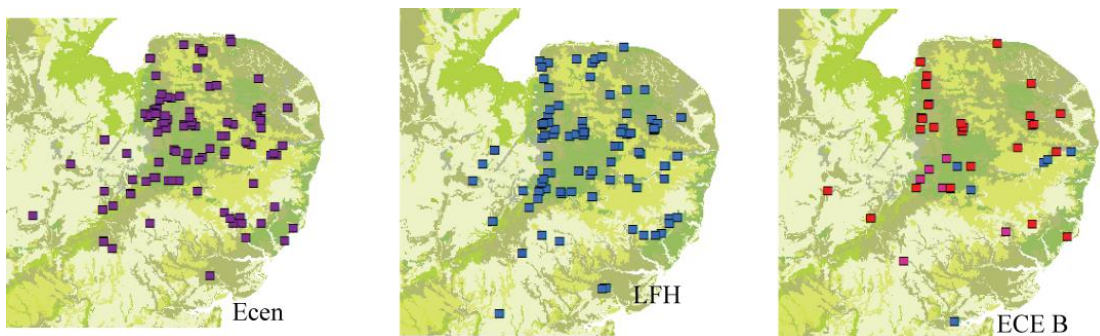


Figure 3.3. From left: final denominational period Units from Mint A, B and C

### 3.3 The Mints

There are 13 denominational Issues of Icenian coinage. The later of these can be readily allocated to the three mints by the design of the horse on the reverse, particularly its head. Two Units from each mint are shown in Figure 3.4.



Figure 3.4. Reverses from mint groups A to C

The parallel output of the three mints is revealed by an analysis of the Boudiccan Revolt hoards showing the relative chronology of later Issues (6.5.3). I have traced the distinctive output of each mint from Issue to Issue, and each of the denominational Issues is linked to a particular mint (see Table 1.2). Each mint exercised strict control over the weight and imagery of its Issues, notwithstanding that the same Issue often appears to have been struck at a number of sites within the region. This implies that each mint may have comprised a group of workshops under some form of central direction. Whilst there are frequently different areas of emphasis, no mint appears to have had sub-regional geographic exclusivity.

### 3.4 Mint A

This is the largest mint in terms of number of dies used. The silver coinage of the first denominational Issue of the mint, Snettisham, shows stylistic continuity from the early local period and the mint was almost certainly in operation in that period, possibly

producing the LFA Unit which has a similar reverse. Stylistically the Snettisham, Plouviez, Irstead and EBH Issues appear to lead from one to the other, probably representing a continuous sequence (see Figure 3.5).



Figure 3.5. Stylistic development of Mint A Staters

The obverse dies, on the upper part of the figure, develop from the cross of the Plouviez Stater to the more complex EBH with its flower-like centre retaining the cross in the background. The reverses show the horse's head gradually becoming more open. Links between Snettisham and Plouviez Staters are less clear, but there are strong stylistic links between the Units of these Issues.

The Staters of the mid-denominational period differ from those of the previous period, but there is continuity between the last dies of EBH and the early dies of BHB, the first Issue of the new period (Figure 3.6).



Figure 3.6. From left: Late EBH Stater die D and early BHB Stater dies of both sub-types

The four early Issues of Mint A had broadly similar distributions, as shown in Figure 3.7.

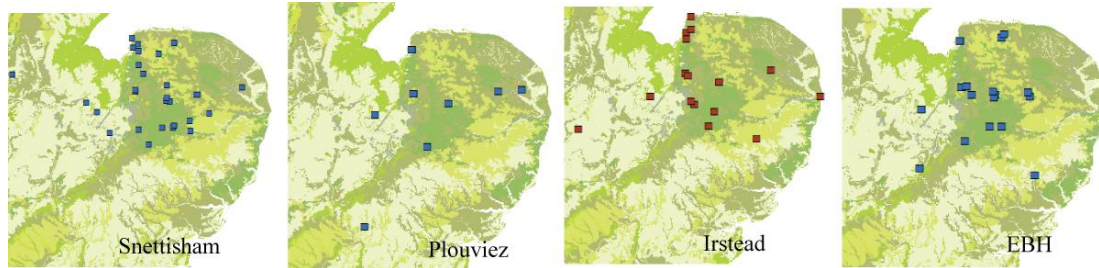


Figure 3.7. Distribution of Mint A Units

The Issues of the mid-denominational period, BHB and BHC, appear to have been minted consecutively, but those of the final denominational period, Anted and Ecen, were minted in parallel. The largest Anted Unit die-group ceased some time before that of Ecen, but Anted Unit production probably continued with die-group 6. I initially suspected that Anted and Ecen were produced in parallel, as the early sequences of each had similar numbers of coins per die in the late hoards (Figure 6.19). This was confirmed by the discovery of a die-link between Anted and Ecen Units on a broken coin from Saham Toney (Figure 3.8). This coin links an early strike of Anted die E to Ecen die 17, which in turn links to Ecen die J. Anted die E continued to be used to strike Anted Units and later strikes show die deterioration; this confirms that when it was used with the Ecen die, it was a current die and not an old die being re-used.



Figure 3.8 Anted die E and Ecen die 17 mule

Subsequently a die-link was found between a late strike of Ecen die M and Anted die 14. This confirms that the main die-groups of Anted and Ecen were produced in parallel, probably at the same site but with care being exercised to minimise links between the two streams of production. The distribution of casual losses from the two die-groups are broadly similar; Ecen is more dispersed, but over the same general area as Anted (Figure 3.9).

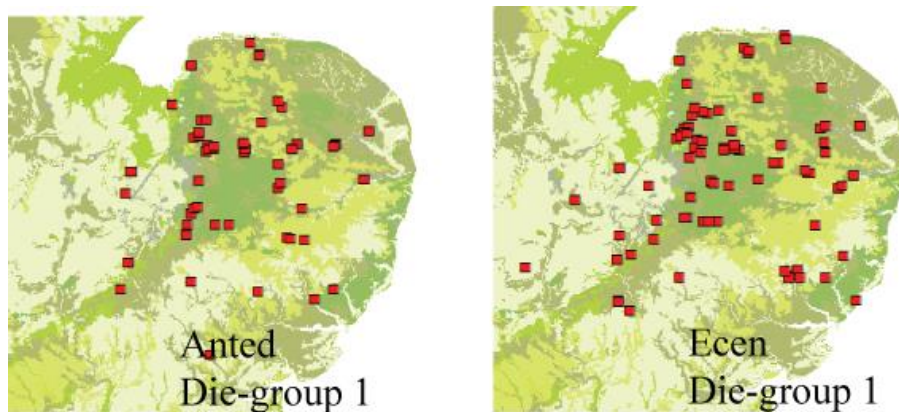


Figure 3.9. Distribution of late Units from mint A

During the first denominational period Mint A produced four types of Stater, but only two Quarter Staters: the Snettisham and the Irstead. I have concluded that production of the Snettisham Quarter Stater continued during the Plouviez Issue (III.3). Likewise the Irstead Quarter Stater was used with the EBH Issue. I believe that two Quarter Staters types (ABC 1471 to 1477), often treated as variants of Irstead, actually relate to the BHB and BHC Issues. Relevant 'Irstead' reverse dies are shown in Figure 3.10 and key statistics in Table 3.3.



Figure 3.10. ‘Irstead’ Quarter Staters – from left: Irstead, BHB and BHC

Type	No.	Obverse dies	Reverse dies	CPD	Plated	Average weight
Irstead	115	8	14	10.5	1	1.06g
BHB	54	3	2	21.6	2	1.03g
BHC	7	2	2	3.5	0	0.99g

Table 3.3. Later Mint A Quarter Staters

The logic behind my treatment of these Quarter Staters is summarised in III.9. Table 3.4 shows the attribution of Quarter Staters to the Issues of Mint A, showing comparative die numbers for Staters and Units.

	Snettisham	Plouviez	Irstead	EBH	BHB	BHC
<b>Stater</b>	25	19	18	18	33	20
<b>Unit</b>	32	16	12	13	47	144
<b>Quarter</b>	22		22		5	4

Table 3.4. Quarter Stater dies allocated to Mint A Issues

The following sub-sections each discuss one of the Issues of Mint A.

### 3.4.1 Snettisham

This is the first Issue with clear denominational links between gold and silver types.



Figure 3.11. The Snettisham Issue – from left: Stater, Quarter Stater, Unit and Half Unit

The weight and metal content of its Stater seems to have restored ‘value’ after the major decline in both purity and weight, during the minting of the JB Stater in the early local period. It marks the start of a move away from the artistic experimentation of the early local period towards coinages which become more stable and ordered. The links between its denominations are expressed in the similarity of reverse dies, especially in the depiction of the horse as shown in Figure 3.11.



Figure 3.12. Early Snettisham Quarter Stater

The Early Snettisham Quarter Stater (Figure 3.12) has stylistic links to both early Snettisham Staters and LFA Units of the early local period. On balance I think it more likely to have been part of the Snettisham Issue, and it is included in the statistics shown in Table 3.5.

Denomination	No. coins	Main die-groups	Obverse dies	Reverse dies	Plated coins	Plated dies
Stater	76	3	8	17	2	3
Early Quarter Stater	8	-	3	3	-	
Quarter Stater	101	2	5	17	-	
Unit	82	3	11	22	1	
Half Unit	12	1	3	9	-	
Total	279	9	30	68	3	3

Table 3.5. Statistics for the Snettisham Issue

The almost plain obverse dies of the Stater are almost certainly re-used from an earlier un-identified coinage (see III.1). Elements of the reverse imagery of the Stater and the Quarter Stater are associated with the North Thames area (see III.1 and 3), links which were not seen with the Icenian gold of the early local period. Both Stater and Quarter Stater appear likely to have been minted in a single chronological sequence. As discussed in 3.4 the Quarter Stater probably continued being minted as part of the Plouviez Issue.

There are two sub-types of Unit, separated on the basis of symbols on the reverse, which probably represent a continuous sequence. The Half Units are die-linked to types of the early local period which were minted on broader thinner flans (2.5.5).

The distribution of the various denominations shown in Figure 3.13 reveals a west Norfolk focus. The Half Unit is the most focussed; the Quarter Stater is particularly dispersed and also has a strong presence in eastern Norfolk.

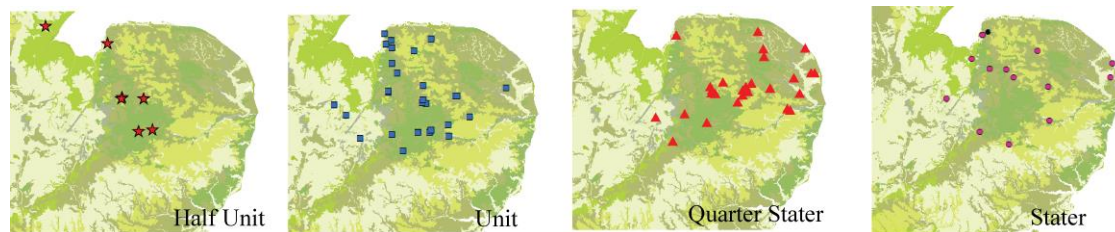


Figure 3.13. Distribution of the Snettisham Issue

### 3.4.2 Plouviez

The Plouviez Issue has crudely produced obverses, but the reverses are finer and typical of Mint A.



Figure 3.14. Plouviez Issue – from left: Stater, Unit and Half Unit

The Issue is very rare although the Stater occurs in limited numbers in later hoards. The Stater is intermediate between Snettisham and Irstead in terms of gradually increasing copper and reducing silver content (Table 4.17). The two main die-groups of Staters are likely to represent a single chronological sequence and the final dies are indistinguishable stylistically from the earliest Irstead Staters.

Denomination	No. coins	Main die groups	Obverse dies	Reverse dies	Plated coins
Stater	76	2	6	13	-
Unit	25	1	6	12	-
Half Unit	7	1	2	3	-
Total	108	4	14	28	-

Table 3.6. Statistics for the Plouviez coinage

The triangular design on the obverse of the Half Unit (Figure 3.14) is assumed to have been introduced with the Plouviez Issue (III.5). Later Snettisham Quarter Staters were likely to have been part of the Plouviez Issue, but none have been allocated to the Issue in Table 3.6.

### 3.4.3 Irstead

The denominations of the Irstead Issue are recognisable by the distinctive style of horse on the reverse (Figure 3.15). Half Units are very rare but there are at least three die-groups for all other denominations. These may represent more than one mint site, as the distribution of the Stater die-groups differ, although sample sizes are very low (Figure 3.16).



Figure 3.15. Irstead Issue – from left: Stater, Quarter Stater, Unit and Half Unit

Denomination	No. coins	Main die groups	Obverse dies	Reverse dies	Plated coins	Plated dies
Stater	242	3	7	11	2	4
Quarter Stater	115	3	8	14	1	
Unit	45	4	5	10	-	
Half Unit	3		2	2	-	
Total	405		22	37	3	

Table 3.7. Irstead statistics

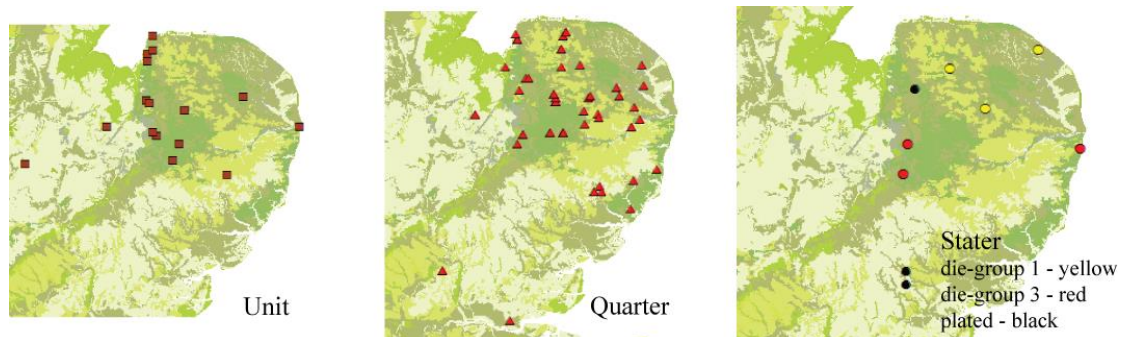


Figure 3.16. Irstead distribution

Quarter Stater distribution also shows some differences of emphasis with die-group 1 being centrally focussed and die-group 3 stronger on the fen edge (Figure 3.17).

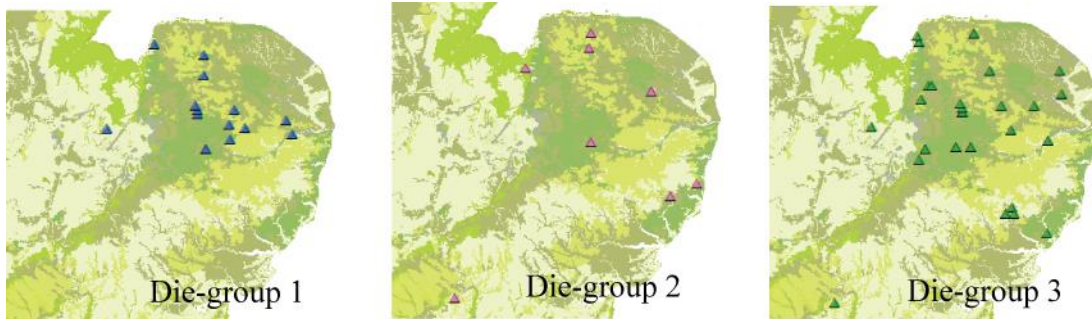


Figure 3.17. Distribution of Irstead Quarter Staters

There are a number of examples of Quarter Stater dies being used to strike Units. The first, from Irstead Quarter Stater die 3, was discovered during this die-study and is believed to be the first such example found in the British LIA coinage. This, and subsequent finds, helped to confirm the denominational relationships and the parallel minting of denominations. The later discovery of a die-link, between a late strike from the same die and an EBH Unit obverse, helped to confirm the extended duration of the Quarter Stater as discussed in 3.4. Examples of the cross-denominational die-links are shown in Figure 3.18.



Figure 3.18. From left: Irstead Quarter reverse die 3 paired with Unit , Quarter Stater and EBH Unit

### 3.4.4 EBH



Figure 3.19. From left: EBH Stater, Unit and two sub-types of Half Unit

This Issue introduced the boar as the key element on the obverse of the Units; previously only seen as a minor element on early Half Units. EBH has distinctive, deeply cut reverse dies on each denomination. A ladder-like exergue was introduced on Staters and Units, replacing the toothed exergue of Irstead Staters.

Despite several innovations there is stylistic continuity from Irstead to EBH. This includes the overall design of the Stater and the use of a large crescent above the horse on two of the Unit dies. The end of this Issue and the beginning of BHB saw an active period of gold deposition (6.8).

As discussed in 3.4 the Irstead Quarter Stater continued to be produced as part of this Issue.

Denomination	No.	Main die-groups	Obverse dies	Reverse dies	Coins per die
Stater	333	2	4	14	35.8
Unit	44	2	3	10	6.8
Half Unit	16	2	5	7	2.7

Table 3.8. The EBH Issue

There are a number of indications that the EBH coinages may have been minted from two locations. All three denominations have two die-groups, forming two sub-types in the case of the Half Unit. The die-groups of Staters and Units appear to have a different focuses of distribution although sample sizes are small (Figure 3.20).

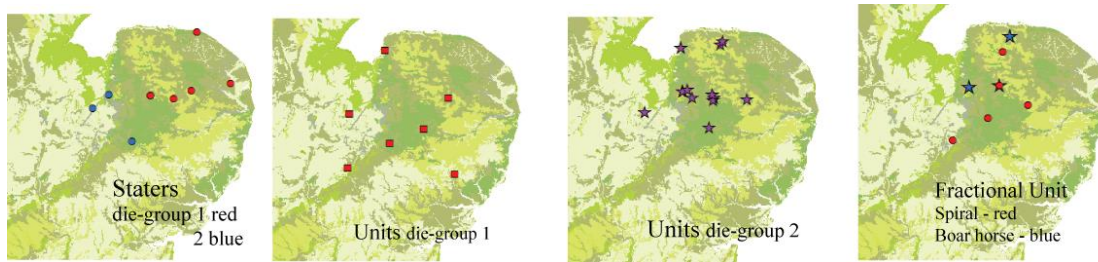


Figure 3.20. Distribution of EBH series

Stylistically and in terms of distribution Stater die-group 1, Unit die-group 2 and the Boar sub-type of Half Unit may represent one production site, the Units and Half Units being frequently found at Fincham, where coins of the other grouping are absent. It remains possible that the two groupings represent a chronological sequence as the Stater shows stylistic continuity from die-groups 1 to 2, and the former has a higher gold content than the latter.

### 3.4.5 BHB

The BHB Issue has been the key to establishing the relative chronology of much of the Icenian coinage. It acts as a link between the ‘middle period’ of Icenian hoarding, where the Stater was found in large quantities in the Dallinghoo hoard and in small quantities in three other hoards, and the final coinages. The Unit is one of the earliest types to be found in any quantity in the revolt period hoards.

The Issue divides into two sub-types; I think that these reflect two separate workshops which produced coinage with similar iconography. The Staters of both carry back-to-back crescents and both produced all four denominations. This division may reflect a continuation of the two groupings within the EBH Issue.



Figure 3.21. From left: BHB main sub-type, Stater Quarter Stater, Unit and Half Unit

Both Staters and Units of the main sub-type change how the horse's head is portrayed in mid-sequence, from a figure of eight shape shown on the left of Figure 3.22 to the more complex form on the right. Unusually two obverse dies were used simultaneously for later production of the Stater indicating urgency in minting.



Figure 3.22. BHB Horses Heads

Sub-type BHB(A) comprises the Staters of die-group 2, the Quarter Staters of die-group 2 and the Units and Half Units previously called BHA.



Figure 3.23. From left: BHB(A) Stater, Quarter Stater, Unit and Half Unit

The obverses of die-group 4 of the BHB(A) Unit have marks above the boar which loosely resemble script; an example is included in Figure 3.23.

	Main BHB sub-type				BHB(A) subtype			
	No.	Die-groups	Obv. dies	Rev. dies	No.	Die-groups	Obv. dies	Rev. dies
Stater	400	1	13	14	41	1	4	2
Quarter	46	1	2	1	8	1	1	1
Unit	265	3	16	30	65	4	16	8
Half Unit	57	2	4	5	13	1	1	2
Total	768	7	35	50	127	7	22	13

Table 3.9. Sub-types of BHB

The maps in Figure 3.24 and Figure 3.25 show that the distribution of BHB(A) denominations is more focussed on the east of the region than the main BHB sub-type.

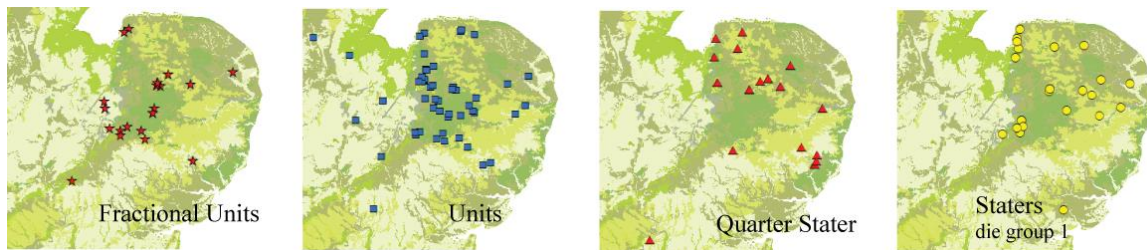


Figure 3.24. Distribution of BHB

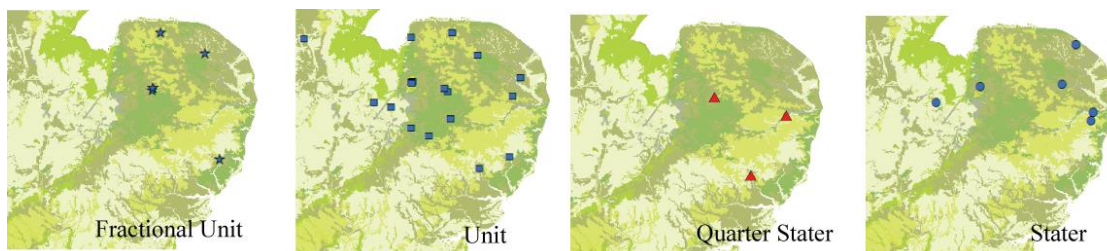


Figure 3.25. Distribution of BHB (A)

Production of BHB (A) probably started later than the main sub-type BHB as the BHB(A) Unit utilises the later form of horse's head. The statistical analysis of the relative chronology of Units in the late hoards (Table 6.20) supports this, although the results are

slightly ambiguous. The Dallinghoo hoard excluded the final dies of both sub-types of Stater implying that in their later stages both sub-types were being produced in parallel.

The BHB Quarter Stater of the main BHB sub-type has a second form of obverse die that is used in parallel with the first. This is shown on the right of Figure 3.26 and is almost identical to that used on the North Thames Quarter Stater ABC 2395, shown on the left. The North Thames obverse differs in having a central line in the double band of pellets and is attributed to Dubnovellaunus as, although uninscribed, it is closely related to the inscribed Stater ABC 2392.



Figure 3.26. ABC 2395 (left) and BHB Quarter Stater die A obverses (right)

The reverse of all Quarter Stater dies shows a stepping horse. This is rare in Icenian iconography occurring only on the first reverse die of the Saham Toney Unit and the later Ece A Unit. A stepping horse can also be seen on several North Thames coins of Tasciovanus and Cunobelin (see ABC 2586 and ABC 2975) and on certain of the Kentish coins of Dubnovellaunus and Eppillus (e.g. ABC 321 and ABC 390). The latter are similar in style to the Irstead Quarter Stater.

Over the Quarter Stater horse is a trefoil. This does not appear elsewhere on Icenian coinage, but occurs in a similar form on the reverse of the North Thames Quarter Stater ABC 2395, as shown in Figure 3.27.



Figure 3.27. The trefoil on ABC 2395 (left) and on a BHB(A) Quarter Stater (right)

A slightly different trefoil also occurs on Quarter Stater from Kent. This is also attributed to Dubnovellaunus (ABC 312). The horse's head on BHB Quarter Staters is unusual for an Icenian coin, and is also similar to that used on ABC 2395.

Whilst the Quarter Stater is undoubtedly East Anglian, it is stylistically closer to North Thames coinage than to the rest of the Issue. Possibly the designs used on this type are the result of an artisan adopting ideas from coinages to the south. I think that this is unlikely as, at this time, imagery was tightly controlled with little variation within a type. I think it more likely that the references to the symbolism used by Dubnovellaunus were deliberate, and had political or economic significance. They may be related to introduction of back-to-back crescents onto the BHB Staters.

There was an increase in forgeries during the BHB Issue affecting all denominations. I have found as many plated dies for Half Units as I have official dies. This contrasts strongly with the previous EBH Issue which has only two known forgeries, both Half Units.

### 3.4.6 BHC

This large coinage is stylistically a clear antecedent to Anted and Ecen. It includes all four denominations and the 141 known dies used to strike the Units (Table 3.10) are only exceeded in number by those of the LFH Unit.



Figure 3.28. BHC Issue – from left: Stater Quarter Stater, Unit and Half Unit

Denomination	No. coins	Main die-	Obverse dies	Reverse dies	Plated coins	Plated dies
Stater	51	2	7	11	8	13
Quarter Stater	7	2	2	2	-	-
Unit	435	12	39	102	20	25
Half Unit	39	1	11	13	-	

Table 3.10. Statistics for the BHC coinage

Hoard analysis shows that BHC postdates BHB. This includes the Dallinghoo hoard which contained numerous BHB Staters but no BHC Staters (6.4.4). Stylistic analysis confirms the chronology with the final BHB Stater reverse dies being very similar to early BHC Staters, particularly in the illustration of head, mane and tail.

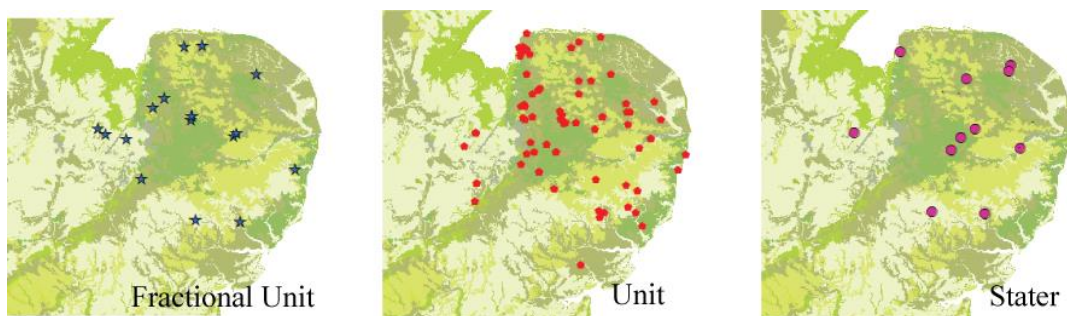


Figure 3.29. Distributions of the BHC Issue

The BHC Unit has a reverse which is quite different in style to the preceding BHB Unit; it re-introduces the open horse's head which continued to be used by the mint on the

ensuing Anted and Ecen Issues. The horses on certain reverses are very similar to those seen on early Anted Units (see Figure 3.30).



Figure 3.30. Similarities between BHC die 96 and Anted die 1

Reverse dies from the only major die-linked sequence of the Half Unit, die-group 1, have horse's heads which are very similar to those seen on late BHB Units and BHB(A) Half Units. A rein-like line connects the breast and head, which subsequently appears on Anted and Ecen Half Units. Thus this die-group appears to span the entire BHC Issue. Some rarer unlinked BHC Half Units have open horse's heads as seen on BHC Units and it seems likely that these relate to distinct BHC die-groups of Units.

BHC Staters were minted at a time when the use of gold was being reduced in Icenian coinage and are the last Staters produced in high volume. Recoveries per die are very low and of the 16 dies, six are known from only a single example. More dies and die-links are expected to emerge in the future and Esty formulae indicate that the die count will rise from 18 to 23.

The large minting of Units is in two broadly similar styles with many die-groups. Twenty-nine of the 141 dies are known from only a single example which indicates that more dies will be found and that die-groups will consolidate, nonetheless I expect there will continue to be many separate die-groups. Distribution analysis shows all denominations to be well dispersed over the region (Figure 3.29). The distribution analysis in III.22 is ambiguous, but I suspect that some die-groups will eventually prove to have distinctive distributions.

There are 13 known forged Stater dies, compared to only 18 known official dies. This high level of forgeries implies that the Stater was originally more important and

better known than its present rarity suggests. Coins struck from forged dies are hard to identify from photographs as the dies are usually well-produced, but the coins are underweight and brassy. Most do not appear to have been plated and may contain small amounts of gold to deliberately enhance their appearance in antiquity. The example below weighs only 3.98g but had been recently polished to enable it to be sold as an official Stater.



Figure 3.31. Re-polished false BHC Stater

The BHC coinage as a whole is less resolved than most Issues and there is much still to be learned about its production and organisation.

### 3.4.7 Anted

The Issue lacks a Quarter Stater and was minted in parallel with the Ecen Issue. The two are the first inscribed multi-denominational Issues of Mint A and probably of the region. The inscription was always written with a barred D or *Tau Gallicum* (see III.25).



Figure 3.32. Anted Issue – from left: Stater, Unit and Half Unit

Denom.	No. coins	Main die-groups	Obverse dies	Reverse dies	Coins per die	Plated coins	Plated dies
Stater	17	1	1	2	11.3	3	4
Unit	1164	7	27	45	32.3	46	58
Half Unit	27	2	3	6	6	10	11

Table 3.11. Statistics for the Anted Issue

Large quantities of Units survive as a result of their inclusion in the Boudiccan Revolt hoards. There is an average of 43 known coins for each obverse die, which has greatly facilitated the die-study. Approximately half of all Units belong to die-group 1, a long die-linked sequence. The Half Units, which do not appear in the revolt hoards, are much less well-known.

The obverse die used to strike the Anted Staters was also used for Ecen Staters. An analysis of die wear indicates that the earliest known strike was of an Anted Stater and there appears to have been subsequent production of Anted and Ecen Staters in parallel (III. 26).

A small late local coinage inscribed Anted SIA is considered at 3.7.

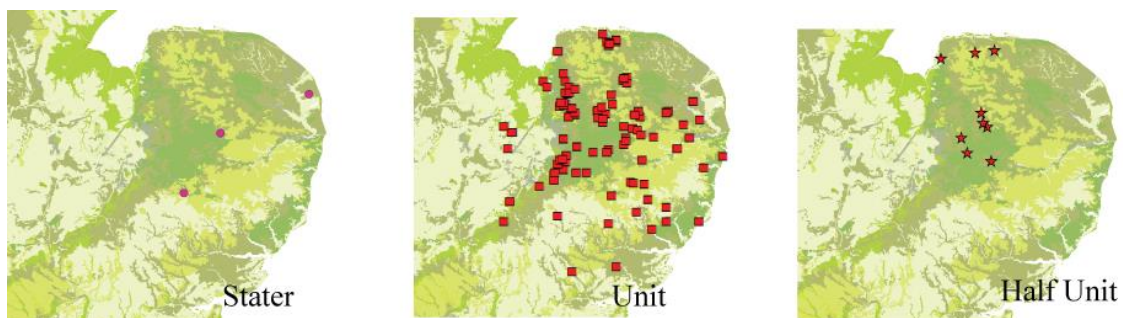


Figure 3.33. Distribution of Anted Issue

The overall distribution of the Units is heavily focussed on Breckland and the fen edge; Half Units are more focussed on the Saham Toney area and Breckland. The three records of Anted Staters are widely dispersed.

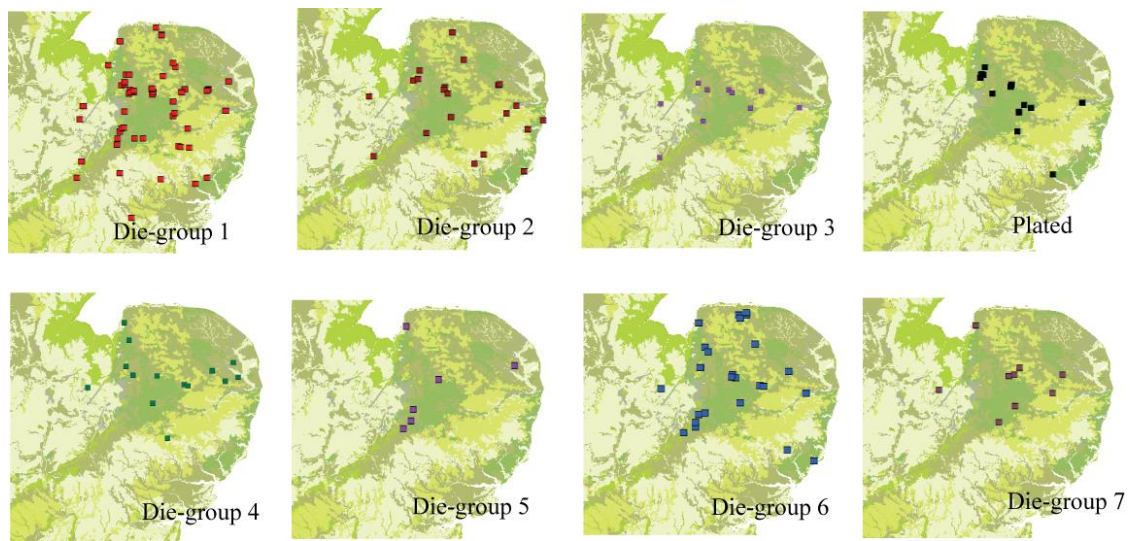


Figure 3.34. Distribution of the die-groups of the Anted Unit

The mapping of late Units is complicated by scattered revolt period hoards but, nonetheless, some Anted Unit die-groups have distinctive distributions as shown in Figure 3.34. Die-groups 1 and 6 have a concentration on the fen edge, whereas die-groups 2 and 4 seem to have a more easterly focus and die-groups 3 and 7 are stronger in the area around eastern Breckland. Plated Units have a similar focus to Half Units in the south-west of the region. This evidence implies that the Anted Unit was produced in parallel at a number of sites and that die-group 6 probably represents a continuation of die-group 1.

The Half Unit is scarce with few known coins per die. It was clearly of contemporary importance as more plated than ‘official’ dies have been recorded and there is a high ratio of plated to official coins (Table 3.11).

### 3.4.8 Ecen

The Units are inscribed ECEN, EDN or possibly just ED; these variants are die-linked with the shorter inscriptions appearing on later dies. Half Units are usually inscribed ECE or ECEV. Variant inscriptions are discussed and illustrated in III.29. In the long die-linked

sequence of die-group 1 both inscriptions and imagery of Units became progressively cruder (Figure 3.36).



Figure 3.35. The Ecen Issue – from left: Stater, Unit and Half Unit

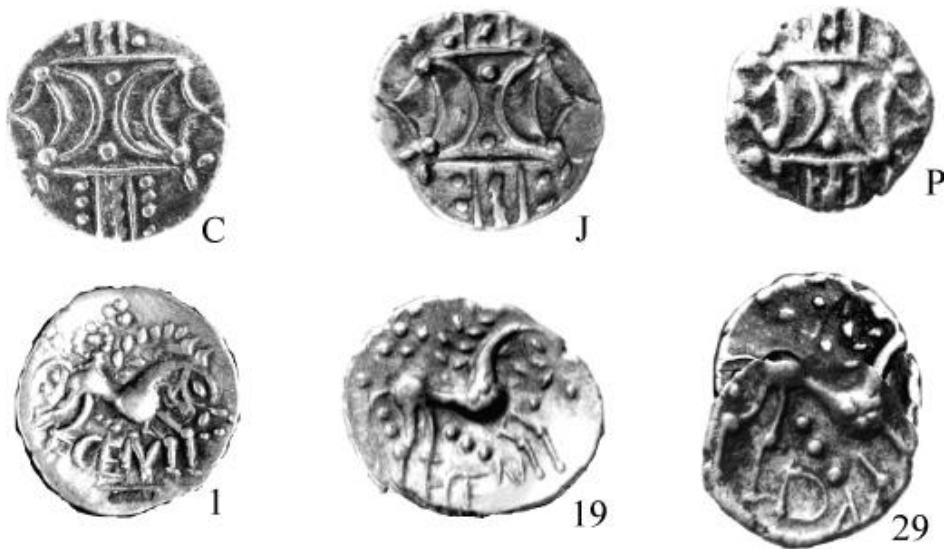


Figure 3.36. From left: Early, mid and late dies from Ecen die-group 1

The closely related ‘Symbol’ Units and Half Units, shown in Figure 3.37, are uninscribed but are analysed alongside the Ecen coinage, to which they are die-linked as Half Units and probably Units (III.31).



Figure 3.37. Symbol Unit (left) and Half Unit (right)

Denomination	No. coins	Die-groups	Obverse dies	Reverse dies	Coins per die	Plated coins	Plated dies
Stater	4	1	1	1	4	1	2
Unit	1452	3	23	41	45.4	38	43
Half Unit	131	3	8	22	8.7	8	8
Symbol Unit	126	2	2	7	28	-	-

Table 3.12. Statistics for the Ecen and Symbol coinage

The overall distribution maps for Anted and Ecen Units in Figure 3.38 are broadly similar. Anted has a slightly stronger fen edge and fenland distribution, noticeable in the concentrated line of findspots to the south of Snettisham.

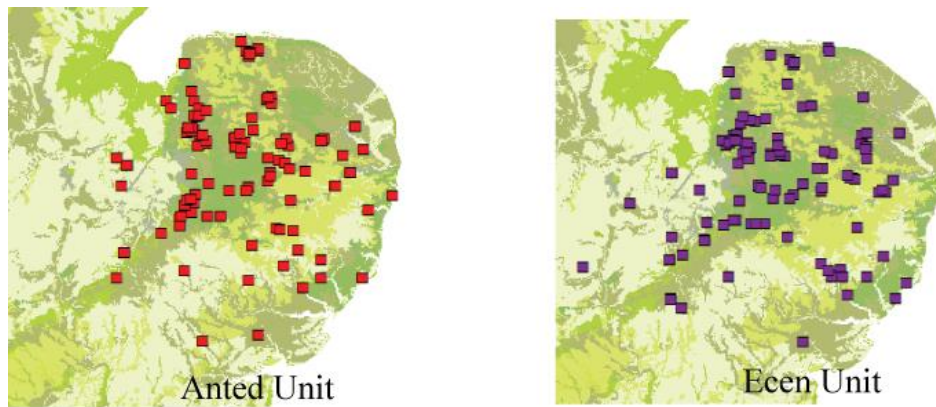


Figure 3.38. Comparison of the distribution of Anted and Ecen Units

Evidence showing the parallel production of Ecen and Anted Units is discussed and illustrated above (3.4). The first reverse dies in the main Ecen die sequence are stylistically very similar to the earliest dies in Anted die-group 1 and also to those of the preceding BHC Unit. The first Ecen die in die-group 1 seems to have been originally destined to be an Anted die (Figure 3.39). The Anted reversed S can be seen below the horse's head and the E of Ecen seems to have originally been a Ð.



Figure 3.39. Ecen die 1

Ecen and Anted Half Unit obverses are similar, but there are various styles of Ecen reverse. The earliest is very similar to early Anted Half Unit dies, as shown in Figure 3.40. Later reverse dies are similar to later Anted Half Unit dies, further evidence of the parallel production of the two Issues.



Figure 3.40. Early Ecen and Anted Half Unit reverses

Anted and Ecen Staters were produced with a shared obverse die and appear to have been minted in parallel (III.26).

The die-groups of the Ecen Unit give indications of differing distributions, although the results are likely to have been standardised to some extent by recoveries from dispersed revolt period hoards, which all have broadly similar content (6.5.1).

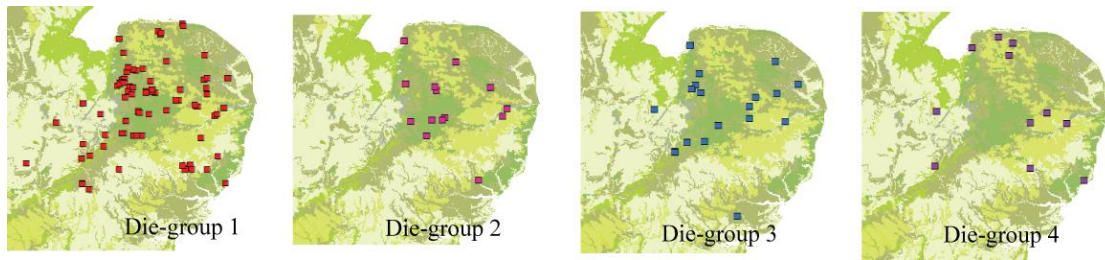


Figure 3.41. Distribution of Ecen Units (non-hoard)

Die-group 1 is broadly dispersed but concentrated to the north of Breckland. Die-group 3 appears to have a bias towards East Norfolk and the few provenances of coins from group 2 have a Breckland focus. Die-group 4, comprising Symbol coinage, is mainly found in the north-west and the south-east of the region.

The distribution of the Half Unit is more restricted than the Unit, largely excluding the north and the east of the region, Figure 3.42.

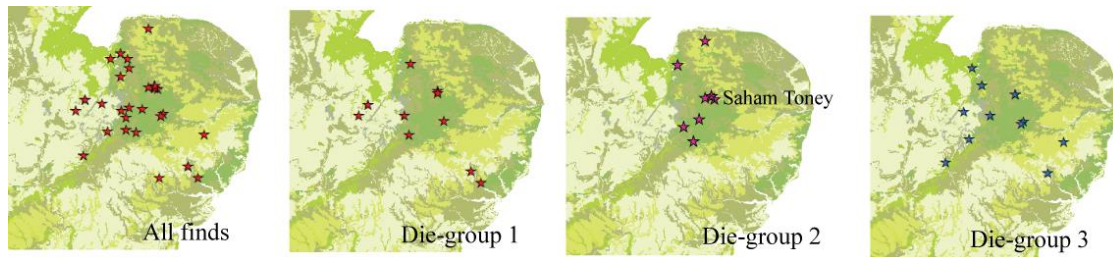


Figure 3.42. Distribution of Ecen Half Units

There are subtle differences between the die-groups. Die-group 2 is focussed on Saham Toney, which has yielded eight of the 13 finds spots. Die-group 1 has a strong Fenland presence, including the only two examples of the type from Stonea, as well as three finds from Saham Toney. Die-group 3 includes the Symbol Half Unit, but it does not replicate the north-western aspect of the distribution of the Symbol Unit.

### 3.5 Mint group B

Mint B, the last of the three main mints to operate, started production at the beginning of mid-denominational period, probably in the first two decades of the first century AD. This

coincided with the introduction of back-to-back crescents as a key motif on East Anglian coinage. The mint has no obvious antecedents, and it produced only two Issues, EPH(A) and LFH, both of which were large.

Metal analysis has shown that the silver alloy used by Mint B contained more tin than that used by the other two mints (4.4.3).

EPH(A) comprised Units, Half Units and a very small issue of Staters. The Units are too early to be well represented in the Boudiccan hoards and are rare, having one of lowest survival rates per die of any significant type of Icenian Unit. Units are often found in poor condition and dies are hard to identify, thus the organisation of minting has not been resolved.

The final Issue of the mint, LFH, is exclusively of Units which were seemingly produced at multiple sites, as was probably also the case for EPH(A). LFH differs from the late Issues of the other two mints in omitting the back-to-back crescents and in having no inscription. In the past there has been speculation about the dating of LFH and whether it predated inscribed coinages such as Anted. The analysis of the revolt period hoards in this thesis indicates that LFH was produced over a longer period than contemporary Issues, but this included a period when it was minted alongside the late inscribed types. Whether minting continued until the very end of Icenian coinage is uncertain and the evidence is ambiguous, but I strongly suspect that it did.

The following sub-sections discuss the two Issues of Mint B.

### **3.5.1 EPH(A)**

EPH(A) differs from other Issues in having broadly similar obverses for each denomination. These are cruciform with a central back-to-back crescent motif.



Figure 3.43. The EPH(A) Issue – from left: Stater, Unit and Half Unit

	No. of coins	Main die-groups	Obverse dies	Reverse dies	Coins per die	Plated coins	Plated dies
Stater	2	unknown	1	1	2	4	8
Unit	133	unknown	37	52	3	5	4
Half Unit	12	unknown	8	9	1.4	-	-

Table 3.13. Statistics for EPH(A)

The Unit and Half Unit were struck from many dies, but the organisation of production has not been resolved as recoveries per die are exceptionally low (Table 3.13). The present total of 89 known Unit dies results in this being the third largest issue of Icenian Units. New dies are regularly found and Esty formulae indicate that there may have originally been 131 dies. Recoveries of Half Units are exceptionally low and the Esty formulae suggest that there were originally 52 Half Unit dies, which would have made it the biggest Half Unit issue in the entire coinage.

The Stater is rare although two additional examples have been found since the closure of the database including two new dies. The Stater appears debased and the three recorded weights are low, averaging only 5.07g.

The reverse of the Stater has an unusual quartered ring or wheel below the horse, this also occurs below the horses on the ‘Biga’ Stater and Quarter Stater of Cunobelin (ABC 2771). Other similarities with these North Thames types include leaf shapes above the horse and cruciform forms of obverse.



Figure 3.44. Similarities between EPH(A) Stater and Cunobelin Biga type

The distribution of Units shown on Figure 3.2 reveals a concentration in Breckland and the south-west of the region; the two largest die-groups are similar. The few Half Units with a provenance (Figure 3.45) are from the southern half of the region, suggesting a Breckland focus similar to the Unit; there are four separate records from the Saham Toney area.



Figure 3.45. Distribution of EPH(A) Half Units

### 3.5.2 LFH

This is the largest Icenian issue of Units in terms of the number of dies used in its manufacture; and is second only to Ecen in the number of known examples. There are no other known denominations.



Figure 3.46. LFH Issue: two examples of Unit

The head on the obverse appears like a mask or a decapitated head (see 5.4.2). Observations by Allen (1970) that the head may be derived from a Republican denarius are not convincing and are discussed in III.36. The reverse has a kite-like device below the horse to the left of which is a small device. This varies from die to die and appears to be a form of mintmark.

Allen (1970: 9) separated this Issue into three sub-types partly 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 die-study has shown that Allen's differentiation between B and C is not meaningful, but obverse dies without a moustache are rarely linked to those with one. An exception is die-group V, but in this group the obverses without moustache have a unique additional feature, a crescent shaped line below the eye.

The Units fall into 23 different die-groups most of which each contain dies with similar features, a similar style of 'mintmark', and which often appears to have been cut by the same hand. In order to try to make sense of the coinage I divided the die-groups into three 'subsets' on stylistic grounds (Table 3.14). Subset 1 includes most of the moustache-less obverses and the basis of the division between 2 and 3 is discussed in III.36.

Subset	Number of die-groups	Known coins	Obverse dies	Reverse dies
Subset 1	9	294	21	32
Subset 2	9	359	31	35
Subset 3	5	681	31	32
Poor		39		
Official	23	1373	83	99
Plated		28	13	16
Pairs		14	13	14

Table 3.14. LFH die-groups

Attempts to assess the relative chronology indicate that several of the earliest die-groups are in subset 1, but that later die-groups from all three subsets appear likely to have been minted in parallel. There appears to be no overall difference in distribution between the subsets, although possibly some between individual die-groups, examples of which are shown in Figure 3.47.

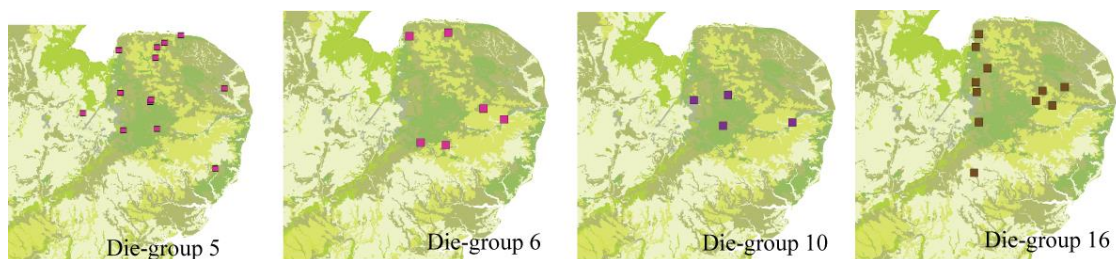


Figure 3.47. Distribution of LFH die-groups

Overall there are fewer known examples per die of LFH than other late Units such as Ecen and Ece B (see 6.5.3) which, *prima facie*, implies that LFH predated other late types. I think that this is misleading as, unlike the other types, LFH appears to have been minted in small local batches of low volume production. Die-group 19, the largest of the LFH die-groups, has similar statistics to Anted. I think it likely that the LFH Unit was produced from a number of separate locations over a longer period than other late types. I

suspect that some small LFH die-groups were amongst the final Icenian coins to have been minted, as these have few or no provenanced casual losses (III.36).

There are a number of unlinked pairs of dies referred to as ‘pairs’ in Table 3.14. These are often represented by a single coin and are frequently crude or unusual. I have assumed these to be plated although this is not proven.

### 3.6 Mint C

Mint C is the smallest of the three mints, and its output had a more restricted distribution.

	<b>Total number of known dies used in production</b>			
	<b>Staters</b>	<b>Quarter Staters</b>	<b>Units</b>	<b>Half Units</b>
Saham Toney	-	5	26	4
EPH B	2	4	33	6
Aesv/Saenv Ece B	-	-	34	-

Table 3.15. The Issues of Mint C

Saham Toney is the mint’s earliest identifiable Issue and is likely to have been produced at the same time as a succession of the first denominational Issues of Mint A. I suspect that Saham Toney was minted intermittently over a lengthy period, although it forms a continuous, die-linked sequence. Like Mint A this mint may have its origins in the early local period, but no stylistic or other links have yet been identified. The hoard evidence is slightly ambiguous but the start of the second Mint C Issue, EPH(B), was probably contemporary with the Mint group A Issue BHB (6.5.3).

Many early and all later Units of this mint have a distinctive Y-shaped horse’s head crossed by an elongated pellet, which probably originates from a North Thames Stater (Figure 5.34). This head is first seen on some Saham Toney Units; stylistic links between these Units and the next Issue of the mint, EPH(B) are shown in Figure 3.48.



Figure 3.48. Similarities between EPH(B) in the centre and Saham Toney Units

The horse on EPH(B), and on later Units of the mint, has two lines of three pellets on the breast. These replace the two angled lines seen on the Saham Toney Unit and presumably represent strapping (see Figure 3.48).

The Units of the final Issue of the mint are inscribed Aesv, Saenv or Ece. The three inscriptions are die-linked in die-group 4; but the Units of the other three die-groups are solely inscribed 'Ece'. As discussed in 3.6.3 it appears likely that several sites were involved in the production of this Issue, the die-groups of which have differing distributions.

During the die-study a few examples have been identified of non-Icenian Units being over-struck with Icenian dies. All the examples identified so far emanate from this mint.

The following sub-sections discuss each of the Issues of Mint C.

### 3.6.1 Saham Toney

The Saham Toney Unit is unique within Icenian coinage in having radically different styles of obverse and reverse in a single die-linked sequence. Examples are illustrated in Figure 3.50.



Figure 3.49. Saham Toney Issue – from left: Quarter Stater, Unit and Half Unit



Figure 3.50. Examples of Unit obverse and reverse dies

	Die-groups	No.	Obverse dies	Reverse dies	Plated
Quarter Stater	1	8	1	4	1
Unit	1	70	9	17	1
Half Unit		2	2	2	
Total		80	12	23	2

Table 3.16. Saham Toney Issue

The Saham Toney Issue appears to have been in production over a lengthy period. The earliest reverse dies of the Unit and Quarter Stater have ornate horses with unusual ‘hooked’ feet. These are similar to those seen on early local coinage, such as the late JB Stater dies from die-groups 6–8 and Bury D. Later dies have stylistic links to the next Issue (EPH(B)), from the mid-denominational period, probably some twenty years or so later. The differing styles of die seen within the Saham Toney Issue are probably related to this extended period of production.

One of the obverses of the Unit is very similar to a North Thames coin of Tasciovanvs (ABC 2610), the left-facing head of which is reversed in Figure 3.51. The

nose, mouth, chin, eye, ear, beard and hair of both obverses are drawn in an identical manner and the two dies appear to be by the same hand.



Figure 3.51. Comparison between Units of Tasciovanvs (left) and Saham Toney (die B, right)

Some Units and a Quarter Stater have clearly been over-struck onto existing coins; the only under-lying coin which has been identified is a Kentish Unit of Dubnovellaunus (ABC 321). Other unidentifiable examples are listed in Appendix III; it is possible that a considerable part of the early output of this mint is re-processed coinage from other regions.



Figure 3.52. Saham Toney die 4 struck onto Unit of Dubnovellaunus

The over-strike onto the Unit of Dubnovellaunus provides a *terminus post quem* relative to the Kentish coinage and the close similarities between the Icenian obverse and the Unit of Tasciovanvs provide a further clue as to dating. Unfortunately the dating of Dubnovellaunus and the North Thames coinages are far from resolved, Leins summarised present thinking (2012: 89–90) suggesting a dating for Dubnovellaunus of c. 20 BC to 0 AD and for Tasciovanvs of 20 BC to AD 10.

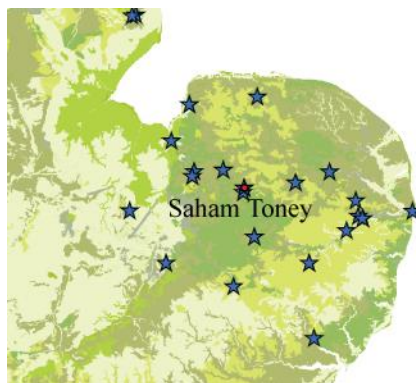


Figure 3.53. Distribution of Saham Toney Unit

The distribution of the Unit is distinctive with an unusual strength in the Waveney valley, to the north-east of Needham, and a strong distribution in central Norfolk (Figure 3.53). There are no differences in distribution between coins with different styles of obverse or reverse. The 45 coins with a known provenance include nine found separately at Saham Toney over many years; two recorded by Robin Brown were found 100 yards apart but on opposite sides of Watton Brook (Brown 1986). Four examples of the Unit come from the probable ritual site at Fincham in West Norfolk, some 15 miles from Saham Toney. Four examples have also been recorded in South Lincolnshire, probably emanating from a single deposit at Candlesby Hill.

The earlier LFA type has a similar focus on the Waveney valley and also carries a kite symbol somewhat similar to that seen on some Saham Toney reverses (Figure 3.54). Only a single LFA has been found at Saham Toney but nonetheless it is possible that Mint C was active in the early local period and produced LFA. This linkage is somewhat tenuous as the kite is later seen on LFH Units and also appears on uninscribed Corieltavian coinage (e.g. ABC 1818).



Figure 3.54. Comparison between kites on LFA (left) and Saham Toney (right)

### 3.6.2 EPH(B)

Each denomination of EPH(B) has a cruciform obverse and a similar left-facing Y-headed horse on the reverse. Three of the denominations also have a small crescent echoing the shape of the upper front rear leg (Figure 3.56).



Figure 3.55. EPH(B) Issue – from left: Stater, Quarter Stater, Unit and Half Unit

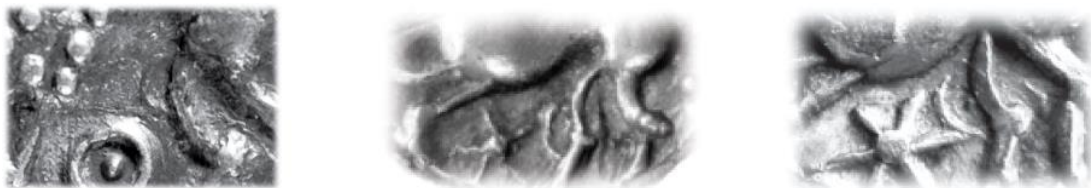


Figure 3.56. From left: small crescent on Unit, Quarter Stater and Stater of EPH(B)

The only other instance of the crescent so far noted on an Icenian coin is on a recently discovered example of a Saham Toney Unit, struck by the very late die 14, shown in Figure 3.57. In this case the crescent is in a slightly lower position on the die and it occurs behind the front rather than the rear legs, presumably because the horse is reversed.

This is presumably a mintmark of some type, demonstrating the close relationship between the Saham Toney and EPH(B) Issues.



Figure 3.57. Crescent below Saham Toney Unit die 14

The cruciform pattern of the obverse of the Stater appears to be derived from Whaddon Chase Staters (ABC 2240), but a design almost identical to EPH(B) appears on a North Thames Stater of Addedomarus (see Figure 3.58).



Figure 3.58. Stater obverses of EPH(B) (left) and Addedomarus ABC 2514 (right)

Denom.	No.	Die-groups	Obverse dies	Reverse dies	Plated coins	Plated dies
Stater	1	-	1	1	-	-
Quarter Stater	5	1	1	3	-	-
Unit	133	2	12	21	10	12
Half Unit	12	1	2	4	3	6

Table 3.17. Statistics for EPH(B)

The Stater and two of the three reverse dies of the Quarter Stater are only known from a single example, resulting in an ‘Esty’ forecast that there were originally seven

Quarter Stater reverse dies. Most of the Unit dies are from a single die-group, but there is a small second die-group which may represent secondary production activity.

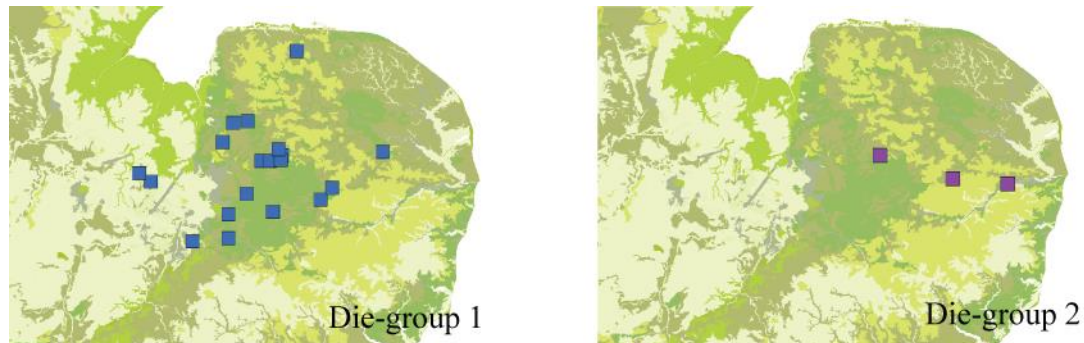


Figure 3.59. Distribution of EPH(B) Units

Unit die-group 1 is found in central and southern Norfolk (Figure 3.59) with a cluster around Saham Toney where five Units have been found; there are also seven records from Fincham. The three provenances for die-group 2 include two from the south-east of the region. Finds of the Half Unit have been mainly in the centre and west of the region (Figure 3.60).



Figure 3.60. Distribution EPH(B) Half Unit

The Unit is found at low volumes in the late hoards the analysis of which implies a dating broadly similar to BHC (6.5.3).

Unlike the Saham Toney type there are no signs of coins being overstruck.

### 3.6.3 Saenv, Aesv and Ece B

The three types of Unit, Saenv, Aesv and Ece B, are only readily distinguishable by their inscription.



Figure 3.61. Units of Saenv, Aesv and Ece B Issue

As the three inscriptions are die-linked I have treated them as a single Issue. I strongly suspect that the late Stater inscribed Ece also belongs to this Issue; it is known from three examples struck by two reverse and a single obverse die. It is not die-linked to the Anted and Ecen Staters from which it has subtle stylistic differences, including its forelegs which are closer to those of some Ece B Units (Figure 3.62). There is also a poor photograph in Henry Mossop's records at the Celtic Coin Index of what may be a Half Unit related to Ece B (M321); this is reproduced in I.53.



Figure 3.62. Ece Stater from dies B:4

Previous studies of this coinage have assumed that the earliest of the three inscriptions was Ece B followed by Saenv and then Aesv, the latter being assumed to be a very late type. I have found that the obverse die used for Saenv and Aesv was later used to strike an Ece B Unit (Figure 3.63).



Figure 3.63. Saenv and Ece B die-link

On the left of the figure is shown Saenv/Aesv obverse die A paired with Saenv die 2 and on the right the same obverse die paired with Ece B die 22. Die wear shows Ece B to be the later type. This does not prove that all Ece B's postdate Saenv as Ece B reverse die 22 has not yet been found die-linked to other Ece B's. This and other evidence is discussed in 6.5.3. The inscriptions are discussed in III.44.1 and 5.7.

	No.	Obverse dies	Reverse dies
Saenv etc 4	146	1	4
Die-group 1	366	5	14
Die-group 2	143	2	3
Die-group 3	61	1	4
Unclear	6		
Sub Total	722	9	25
Plated	6	3	5
Total	728		

Table 3.18. Saenv, Aesv and Ece B Units

Unit die-groups 1 to 3 are exclusively Ece B, die-group 4 contains Aesv and Saenv dies and Ece B die 22 (see Table 3.18). Coins from die-group 3 are more dishd than those from the other die-groups although the elements making up the imagery are identical. The horses on the reverse of several dies are so similar that there may have been a standard body punch.

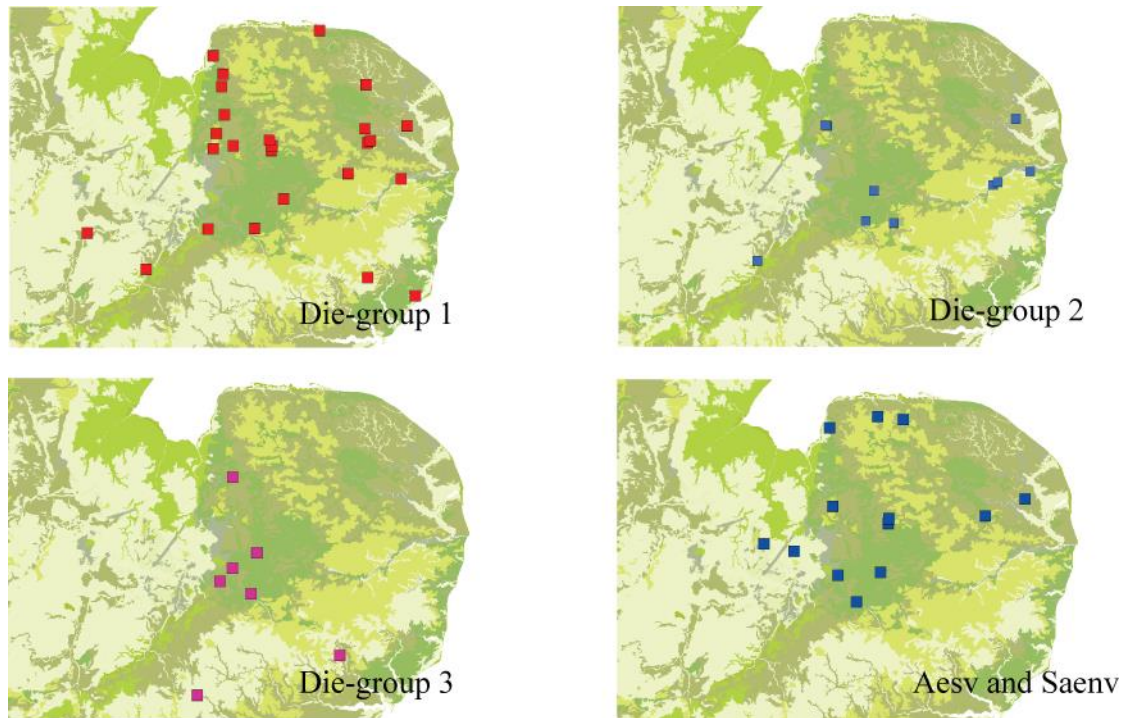


Figure 3.64. Distribution of Ece B and related types

Die-groups 1 to 3 have differing distributions (Figure 3.64), differences which are supported by finds from key sites and from outside the region shown in Table 3.19.

Die-group	Non-hoard provenances	Found outside region	Fincham	Saham Toney	Other
4 Saenv	16	1	1	4	10
1	40	5	5	7	23
2	17	6	5	0	6
3	7	1	0	0	6

Table 3.19. Finds from outside normal distribution area and from two major sites

I suspect that die-groups 1 to 3 represent separate production sites. Die-group 1 had the largest output and is the most widely distributed. This indicates that it probably succeeded die-group 1 of the EPH(B) Unit, but had a greater distribution in western Norfolk from Snettisham to the south of Fincham.

Die-group 2 has three records from the Waveney valley and may thus be the successor to die-group 2 of EPH(B) and in turn to the Saham Toney Issue, and possibly even the LFA Unit. This die-group has an unusually high proportion of recoveries from outside of the region; coins have been found in Dover, Broadstairs, Maldon and Burton Hastings in Warwickshire, as well as two from Cambridge. The ratio of coins from outside the region for this die-group is the highest in the entire Icenian series. The small and distinctive die-group 3 has its focus in the south-west of the region with no recoveries from either Fincham or Saham Toney.

The distribution of the Saenv die-group is similar to die-group 1 but more focussed on Breckland. Saham Toney has generated 25% of all non-hoard finds with a provenance but surprisingly there is only a single record from Fincham. I suspect that the Saenv die-group was the immediate successor to die-group 1 of the EPH(B) Unit followed by die-group 1 of Ece B, and that Ece B die-groups 2 and 3 were among the final Icenian coinages (see also 6.5.3). The non-hoard provenances for die-group 2 are uniquely dispersed and it is tempting to see this as being connected to the aftermath of the Boudiccan revolt, although alternative trading-related scenarios are also possible.

### 3.7 Local coinage of the denominational periods

This section discusses eight types, illustrated in Figure 3.65, which appear unlikely to have been produced by the three major mints.



Figure 3.65. Local coinage types of the denominational periods

As can be seen from the statistics in Table 3.20, most of these are small issues.

	No.	Die-groups	Obverse dies	Reverse dies	Coins per die	Plated
Mildenhall Quarter	2	1	1	2	1.3	-
Mildenhall Half Unit	2		blank	1	2	-
Cani Dvro Unit	48	1	1	3	24	1
Antedi Sia Unit	1		1	1	1	-
Antedi Half Unit	1		1	1	1	-
Alife Scavo Unit	14	1	2	2	7	
Ali Sca Unit	9	unclear	5	5	1.8	1
EsvPrasto Unit	16	1 and pair	3	5	4	1
Ece A	407	1	7	11	45.2	2

Table 3.20. Later local types

I have given the Mildenhall Quarter Stater and Half Unit related names because of similarities in the style of the horse on the reverse. There are no geographic links and I suspect that they are not part of a denominational grouping. There are some stylistic similarities between these two types and the Saham Toney Issue of Mint C. The back-to-back crescents on the Quarter Stater imply that they probably date from the denominational periods.

The Cani Dvro Unit is stylistically closely related to BHC and it probably overlaps with the end of BHC and the beginning of Anted. Its inscription may be the first on an Icenian coin (see 5.7 and III.47). The small issue size, lack of other denominations and its distribution (Figure 3.66) imply that it is a local type from the south-west of the region. I have treated the type as a local issue, but there are similarities to BHC which are discussed

in III.47, and it is possible that this type have been produced by Mint A alongside the BHC Issue.



Figure 3.66. Distribution of Cani Dvro

There are only single examples of Antedi Sia Units and Half Units which may both come from Mildenhall in Suffolk. These are the only Icenian types with the tablet form of inscription which is seen more often in North Thames and elsewhere. Whilst the obverse inscription links these coins to other Anted types, stylistically they are different and were probably minted to different weight standards. The Sia element of the inscription may be related to the Sca of Ali Sca; other potential links to Ali Sca are discussed in III.48.

The Ali Sca Unit and its Scavo sub-type are separated by legend and obverse design. There is an extensive discussion about the legends in III.49, as several alternative readings are possible. The Scavo sub-type was first reported in 2002. Although I have not carried out a comprehensive search, it is the only Icenian type that I have found with fixed die alignments, indicating that obverse and reverse dies may have been attached to each other. This initially caused me to doubt the authenticity of the sub-type, but these concerns have been largely allayed (see III.49). The two sub-types probably form a single sequence with Scavo coins being the earliest, although as shown in Figure 3.67 there may be differences in distribution between the two sub-types. Overall this type has a more north-easterly focus than other Icenian types.

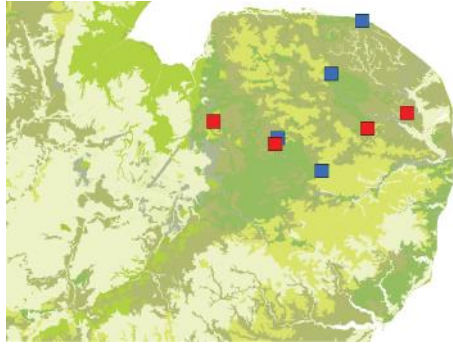


Figure 3.67. Distribution Sca (red) and Scavo (blue) Units

Esty calculations indicate that there may have originally been 21 Ali Sca dies, the large issue size accounting for its wide distribution and the existence of the core of a plated Unit. The style of composition of the horse and boar and their surrounding devices are not typical of East Anglia and elements evoke the coinage of Cunobelin, including the leaping horse which is similar to the ‘dog’ on the right of Figure 3.68.



Figure 3.68. Cunobelin bronze Half Unit ABC 2990

The high silver content, inscription, distribution and rarity of Ale Sca, and its similarities to the coinage of Cunobelin, indicate that it is another very early inscribed coinage, say from c. AD 25, probably originating in north-eastern Norfolk.

The design of the EsvPrasto Unit is not typically Icenian and much has been written about possible Roman prototypes, however the closest parallel is a slightly less decorative Unit of Cunobelin (Figure 5.35). The important inscription is discussed in 5.7 and III.50. EsvPrasto has only been recorded from only three sites: eleven Units from Joist Fen (6.7) and three from Fincham (both in the west of the region), and the other from the

north (Figure 3.69). I suspect that EsvPrasto is a small sub-regional type from western Norfolk, and was probably minted in the last decade or so before the conquest.



Figure 3.69. EsvPrasto distribution

The highest recorded weights of EsvPrasto are only 1.05g, implying a target weight much lower than other Units. This may explain the absence of this type from most late hoards.

The Ece A Unit was minted in a single unbroken sequence of 18 dies; three of the final four are the least common of the 11 reverse dies, indicating that they were probably still in use when production ceased. There are 407 known examples of the type but only two known plated coins, an exceptionally low ratio for a late Unit. As shown in Figure 3.70, the facing horse on the reverse appears to be closely related to, and may be based upon, a bronze Unit of Cunobelin (ABC 2975).



Figure 3.70. Ece A (left) and Cunobelin reverses

Distribution appears to be focussed on the centre of the region and lacks the fen edge concentration seen for many other types such as Anted, which I have shown for

comparison on Figure 3.71. There is a scatter of coins from outside of East Anglia including an important example in a pre-conquest context in the Hallaton hoard (6.6.1).

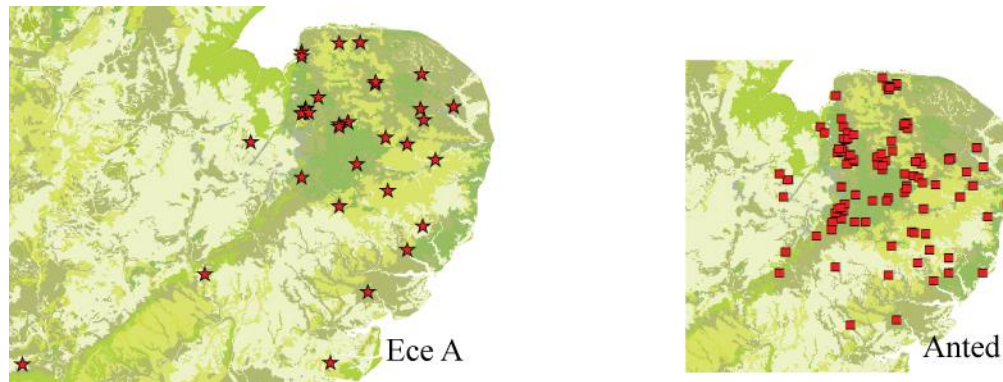


Figure 3.71. Distribution of Ece A

### 3.8 Summary

In this chapter I have examined the coinage of the denominational periods. These probably started in the second decade BC, and ended with the Boudiccan revolt of AD 60/61. I have shown that the period started with the re-establishment of the quality of gold coinage after its extreme debasement at the end of the early local period. From the start of the denominational periods, gold and silver types became stylistically linked and I have allocated most to a modest number of separate Issues. Stylistic links between the different Issues, and evidence from hoards, has been used to demonstrate how these Issues were produced by three main mints which were ultimately all producing Issues in parallel.

Prior to this thesis most individual types of Icenian coinage had not been related to each other in denominational groupings, and the output of the different mints had not been identified. Although there had been thought to be separate ‘streams’ of coinage included in the late hoards of silver (1.3), the Icenian coinage as a whole appeared to be a mass of separate types. I have consolidated 76 separate types listed in ABC into 13 Issues from three mints. As so many of these links between types have been made for the first time, I

have given details in this chapter of some of the evidence that has helped to confirm them; more is given in Appendix III.

I have sought to show how the denominational coinages were carefully structured and ordered, and stylistic variation within any particular type of coin was gradually reduced. An example of this can be seen in Mint C, between the Saham Toney and the ensuing EPH(B) Issues: the former has several different styles of reverse and the latter none. The denominational period coinage gives the appearance of being part of a cohesive monetary system; this becomes increasingly obvious with the later Issues of each mint.

I have showed that gold became less prevalent with time; some later Issues were only produced in silver or with very few dies for gold coinage. The chapter reveals the large scale of coinage production with Mint A latterly minting two Issues in parallel. All mints eventually appear to produce in a number of locations, to common standards of imagery and weight. The three main mints are shown to have dominated denominational period coinage production. The final section of the chapter also shows that a few smaller types continued to be minted, often for local usage, alongside the output of the major mints. Although addressed in more detail in Chapter 5, this chapter shows how back-to-back crescents were introduced across the entire coinage at approximately the same time. The motif was subsequently used on all major Issues with the exception of the final Issue of Mint C.

## **Chapter 4 Production: the evidence from metallurgy, weight accuracy, minting and production volume**

### **4.1 Introduction**

The key approach that I have adopted in examining Icenian coinage production is to combine my analysis of the coinage into chronological periods, mints, denominations, Issues and types with empirical evidence which gives an indication of production activity or efficiency. In this way I intend to extract clues as to the purpose of Icenian coinage and whether these were consistent across time and for all types. The most important empirical data that I have been able to obtain are weight, metal content and number of dies and in this chapter I discuss each of these measures and the quality of my data.

My approach will establish whether the change in Icenian coinage from the early local period, when imagery appeared to be a primary concern and production was often local, to the later denominational coinages, which have the appearance of being mass produced, is reflected in Icenian control of production variables. My approach is also designed to examine the scale of the coinage. By combining data about die numbers, weight and metal content with the chronological analysis of the coinage, I seek to assess and compare the relative scale of the coinage over the various periods of its issue.

The later coinage has a form of hierarchy. There were three main mints; each produced a series of Issues. Each Issue was usually composed of three or four types of coin, each of a different denomination. Each type of coin was often composed of separate die-linked sequences which I have called die-groups. In this chapter I have sought to examine some of these different groupings of coinage to assess whether there are variations in their production characteristics.

The first section of the chapter examines the number of dies used in production. The results of the die-study are summarised and an estimate of the original die population

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume is computed using the ‘Esty’ formulae. This is followed by an examination of coinage weight and the extent to which this was controlled as part of the minting process. There is then a similar examination of metal content and the control of the alloys used in minting. The next section examines whether there were standard ratios between denominations of coinage based upon metal content. This is followed by an assessment of overall production volumes and metal usage for the various periods.

Section 4.7 draws together clues about the organisation of minting. This starts with physical evidence of minting and then addresses evidence from the die-study. Before the conclusion I briefly address the relative scale of plated coinage, as I suspect that this is an indicator of the economic use of coinage.

## 4.2 Die numbers

Table 4.1 shows the number of known dies by period and denomination.

Period	Number of dies				
	Stater	Quarter	Unit	Half Unit	Total
Early local	144	12	204	24	384
First denominational	80	55	113	30	278
Mid-denominational	55	13	337	59	464
Final coinages	7	0	363	41	411
Later local	0	0	40	10	50
Total	286	80	1057	164	1587

Table 4.1. Known Icenian dies

This thesis has shown that the hoarding of Icenian coinage was intermittent and focussed on Staters and later Units. In order to draw overall conclusions from the analysis of dies it is therefore necessary to adjust the numbers to reflect the sample size in each category. In order to do this I have used formulae produced by Warren Esty; these

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume

estimate the original population of dies for types of coinage, from the results of a die-study (2006: 359–60). Esty's formulae are based upon an assessment of the probability that the next coin found of a particular type will be from a die that is already known. They provide a point estimate which is the 'best guess' of the original die population, and also a range within which there is a 95% probability that the original population will fall.

De Callataÿ has supported the logic of the methodology developed by Esty, particularly when the ratio of coins to obverse dies exceeds three (1995). This ratio is exceeded for most Icenian coin types, the average across the Icenian coinage being 12.2. The Access database used in this thesis has provided an opportunity to test the applicability of Esty's formulae to Icenian coinage. The data which would have been available at points of time in the past have been recreated, and I have compared the results of Esty calculations based on that historical data with current knowledge. My results are given in Appendix VII; they indicate that the formulae provide a realistic estimate of original die numbers, except for the very few types which have proportionately high numbers of dies known from a single example. In these cases it may underestimate the original population.

To estimate the total original population of Icenian dies I therefore applied the formulae to the database and the resultant point estimates are summarised in Table 4.2. The table shows in red the percentage increase of the point estimates over known die numbers.

Period	Number of dies									
	Stater		Quarter		Unit		Half Unit		Total	
Early local	179	23%	18	50%	248	22%	44	83%	489	27%
First denominational	91	14%	69	25%	148	24%	60	100%	368	32%
Mid-denominational	63	15%	17	31%	412	22%	109	85%	601	30%
Final coinages	9	29%	0	0	384	6%	47	15%	440	7%
Later local	0	0	0	0	53	32%	10	0%	63	26%
Total	342	19%	104	30%	1245	18%	270	65%	1961	24%

Table 4.2. Estimate of total dies based on Esty formulae

The variation between the estimates based on the Esty formulae, and actual identified dies, are instructive. The final coinages are those with the lowest percentage of unidentified dies at only 7%. This is a consequence of the many recoveries from hoards relating to the Boudiccan Revolt. Half Units and Quarter Staters are the denominations with the highest percentage of unknown dies. This is because these denominations were rarely hoarded and also, I suspect, because the very small Half Units are the least sensitive to metal detectors.

A simple summation of the confidence ranges for each type indicates that there is a 95% probability that the total number of original dies will be somewhere between 1672 and 2515. Very small issues with only a single example of each obverse and reverse die have been excluded from this calculation.

Overall the die analysis has shown Icenian coinage to be substantial; 1587 dies have been identified as being used in its production, and there may have originally been some 2000 dies. There was substantial production in each period, but the tables clearly reveal a marked decline in the use of gold. The estimated number of Stater dies fell from 179 in the early local period to only nine in the final period. A full summary of identified dies and Esty estimates of original die numbers are given in Appendix XIII.

The use of the Esty formulae in conjunction with the die-study has confirmed that most dies from the final period of coinage are likely to have been identified. It has also provided indirect confirmation of the intermittent and denominationally specific nature of Icenian coinage hoarding, which is discussed in Chapter 6.

### **4.3 Weight**

A weight is recorded for 8387 of the coins in my database, of which 5069 are from hoards. The hoarded coins, and many others, have been weighed using scales that measure hundredths of a gram, but there are coins that will have only been weighed to the nearest tenth of a gram. In the following review I have considered the extent to which this may have distorted the data.

I chose for examination three sequences from the database showing the total number of coins at one-hundredth-gram intervals (Table 4.3). I chose two sequences which included the target weights of both later Units and the BHB Stater and a third to sample lighter Units (1.08 to 1.14g). The results suggest that there is a slight bias in the database because of weights being recorded to the nearest tenth of a gram. In the first sequence the 101 coins at 1.3g appear excessive given the falling number of coins at each weight-point from 1.24g. The distortion is more marked at 1.1g in the second sequence. This is almost certainly due to these underweight coins being largely single finds by metal detectorists which were weighed on inexpensive scales. The third sequence in the table from 5.38 to 5.43g has no such distortion, these are Staters and most records are either from well-recorded hoards or are valuable coins likely to have been accurately weighed by reputable dealers.

<b>Weight point</b>	<b>Number of coins</b>	<b>Weight point</b>	<b>Number of coins</b>
1.24	309	1.08	81
1.25	296	1.09	71
1.26	291	1.1	147
1.27	203	1.11	90
1.28	177	1.12	97
1.29	103	1.13	117
1.3	101	1.14	130
1.31	50		
1.32	32	5.38	39
1.33	27	5.39	35
1.34	30	5.4	39
1.35	24	5.41	47
		5.42	55
		5.43	43

Table 4.3. Total number of coins at sequential weight points in total database

Silver coins are very vulnerable to weight loss when loose in the soil, frequently being chipped or broken. The later types with a high copper content also suffer leaching and corrosion. In view of these issues, and the potential weight distortions revealed in Table 4.3, I decided to use only coins from fully recorded hoards in my weight analysis of later silver coinages. Unfortunately, hoard examples are not available for earlier silver coinages.

Other than the most debased JB Staters, gold coinages do not corrode in the ground and the malleable nature of the metal resists chipping and breakage. Clipping does not appear to have taken place and the most common likely cause of weight loss is scraping by a spade or a plough. Table 4.3 shows no distortion due to insufficiently fine weight measurement, thus I have assumed that ‘non-hoard’ Staters do not distort my weight statistics.

The following sub-sections consider the weight accuracy of each of the denominations and the relationship between denominations of the same metal.

### 4.3.1 Staters

In an attempt to assess whether there was accurate measurement around a standard weight for Stater production, Table 4.4 shows the maximum percentage of Staters of particular types that have a weight falling within any range of one-tenth of a gram. The analysis included Stater types with over 15 recorded weights; all records were included in the sample except for Irstead, EBH and BHB Staters. For these, large numbers of coins in the Dallinghoo Hoard had been weighed consistently, and so became the sample. The analysis was undertaken at 0.01g intervals, except for JB and Snettisham Staters where there was a large weight range and 0.02g intervals were used. The compressed range of BHC was due to an absence of examples in the adjoining intervals.

Type	Maximum percentage within a 0.1g range	Actual 0.1g range	Total sample size
JA die-group 1	58	6.13–6.22	19
JA die-group 4	60	6.08–6.17	55
JB die-group 8	18.8	5.5–5.58	48
JB die-group 16	27.8	5.54–5.62	126
JB die-group 18	19.1	5.26–5.34	47
Snettisham	58.5	5.56–5.64	65
Irstead (Dallinghoo)	49.5	5.55–5.64	188
EBH (Dallinghoo)	45	5.41–5.5	221
BHB (Dallinghoo)	56	5.37–5.46	334
BHC	70.6	5.31–5.39	34

Table 4.4. Percentage of Stater weight within a 0.1g range

Table 4.4 reveals accurate weight control for all major types except the JB Stater. The apparent relaxation of control during this coinage may be slightly exaggerated by corrosion of the more debased examples. Subsequent to the JB Stater, weight control was re-established, with accuracy peaking with BHC, the final Stater minted in volume. 70% of all BHC Staters fell within a range of 0.09g. The accuracy of BHC is even higher for its large die-group 1, where 85% of examples fell within a range of 0.1g (III.21).

Data from Table 4.4 are illustrated graphically in Figure 4.1 where the dispersed weight distribution of the largest JB die-group contrasts with the tight grouping of the Snettisham Stater, although both probably had a similar target weight.

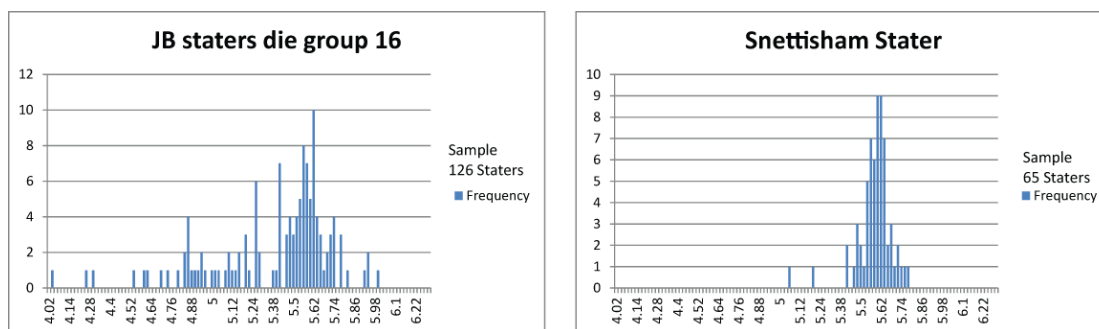


Figure 4.1. Weight distribution JB die-group 16 and Snettisham Stater

The Dallinghoo hoard contained large volumes of Icenian Staters from Plouviez to BHB types. The analysis of this hoard examined the consistency of weight throughout the course of production of each major type. The results confirmed that weight was tightly controlled and reasonably consistent, also that changes in weight were not gradually introduced into the coinage, but coincided with the transition to a new type (Talbot and Leins 2010). Table 6 of that study, showing the average weights of chronologically ordered die-linked sequences, is reproduced in Table 4.5.

In summary the above analysis reveals that the JA Stater weighed approximately 6.1–6.2g. Precise control of weight ceased during the JB type, although the very late die-group 16 seems to have a targeted weight of approximately 5.6g (see also II.7). Approximately 5.6g remained the target Stater weight for the Snettisham, Plouviez and Iinstead Staters. There were modest declines for each of the two successive Issues, EBH and BHB, with the latter having a targeted weight of some 5.4g. BHC shows a further reduction in weight to some 5.35g.

Type	Dies	Number of coins	Average weight
Irstead	7	58	5.56
Irstead	8–9	34	5.52
Irstead	10–11	20	5.56
EBH	1–4	75	5.42
EBH	5–6	38	5.44
EBH	7–8	25	5.46
BHB	A–C	66	5.38
BHB	D–H	85	5.40
BHB	J–L	183	5.40

Table 4.5. The average weight of sequential ‘batches’ of coinage

### 4.3.2 Quarter Staters

There are only two recorded weights, 1.53g and 1.59g, of the first Icenian Quarter Stater the JA.

The weight of Snettisham Quarter Staters was very tightly controlled. Figure 4.2 shows all known weights for coins from die-group 1, 78.4% of all records are in the range 1.05–1.14g and 55% within the 0.05g range 1.08–1.12g.

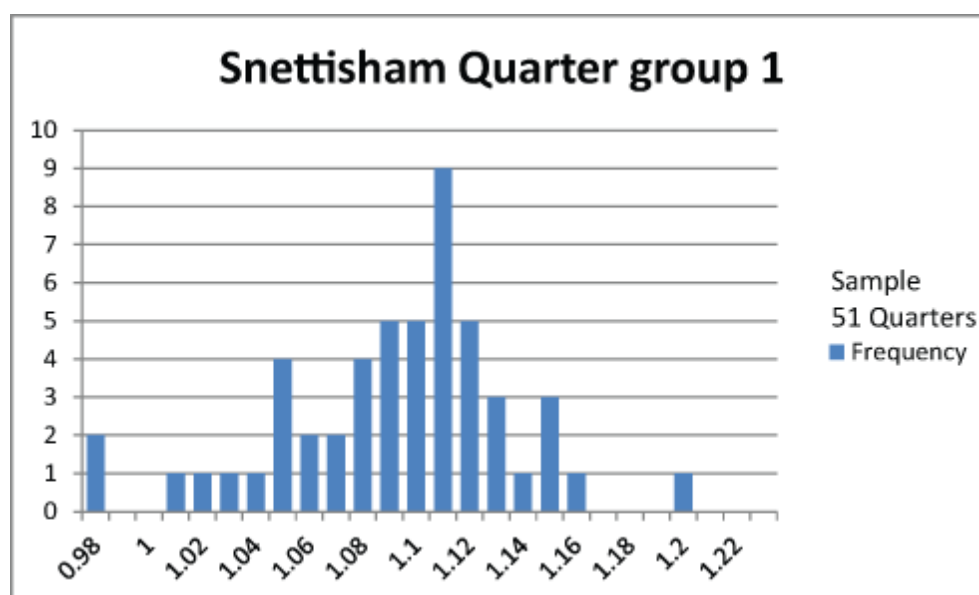


Figure 4.2. Weight distribution Snettisham Quarters die-group 1.

Snettisham Quarters from die-group 2 are also tightly grouped with 74.2% in the range 1.02–1.11g and 58% in the 0.05g range 1.07–1.11g. These statistics indicate a slight reduction in target weight between the two die-groups.

The recorded weights for Irstead, BHB and BHC Quarter Staters may be slightly distorted by an excessive number of coins being weighed on the tenth-gram interval. Nonetheless it is clear that they were produced with careful attention to precise weight measurement, and that there was a gradual decline in the target weight with each new type. Table 4.6 shows the average weight of known examples of the three types and also their weight range after excluding the heaviest 5% and the lightest 30% of coins.

<b>Type</b>	<b>No. of coins with weight data</b>	<b>Average Weight</b>	<b>Weight range (30%–95%)</b>
Irstead	79	1.062	1.04–1.14
BHB (Stepping horse)	37	1.035	1.01–1.1
BHC	7	0.993	0.99–1.08

Table 4.6. Weight statistics for Irstead Quarter Staters and related types

On a comparable basis the average weight of the Snettisham Quarter Stater, excluding one exceptionally heavy coin, is 1.08g (unadjusted 1.085g).

### 4.3.3 Relationships between Staters and Quarter Staters

Table 4.7 shows the ratio between the weights of related Staters and Quarter Staters based on the data discussed above.

Type	Likely Target Weight		Ratio
	Stater	Quarter Stater	
JA	6.08–6.22	1.53–1.59	4:1
Snettisham	5.56–5.64	1.02–1.14	5:1
Irstead	5.55–5.64	1.04–1.14	5:1
BHB	5.37–5.46	1.01–1.1	5:1
BHC	5.21–5.38	0.99–1.08	5:1

Table 4.7. Weight ratios between Staters and Quarter Staters

The JA Quarter Stater had a target weight of approximately a quarter of the JA Stater, but the relationship then changed, and subsequent Quarter Staters are really fifths of a Stater. This relationship also applies to the only known example of a EPH(B) Stater, which weighs 5.31g with the Quarter Stater weighing 1.03–1.09g. Despite the lower gold denomination being in reality a fifth, I have followed existing practice and have continued to describe them as Quarter Staters in this thesis. Snettisham and Irstead Quarter Staters have been subjected to metal analysis and, as discussed below, the results are similar to those of the respective Staters. This implies that differing metal content does not need to be factored into these denominational relationships.

#### 4.3.4 Units

It is very difficult to form views about the importance of target weights and production accuracy for much of the Icenian silver coinage. With the exception of the revolt period, silver does not appear to have been actively hoarded, and most samples available for study have suffered damage in the soil. In this section I will look first at the later types where the late hoards have provided large samples, and then at the more problematic evidence for earlier issues.

The die-study and the database have made it possible to select samples of later types which are indisputably from the same sequence of minting. Previously the different die-groups within a single type were unknown, and there was much misidentification of similar looking Units.

The samples used in Table 4.8 and Figure 4.3 are die-linked sequences from well-documented late hoards, including confirmed Bowl Hoard coins. They have all been carefully weighed, usually under museum-controlled conditions, and are mostly in un-circulated condition (6.5.3). No further selection has taken place, thus the samples will include a number of damaged coins.

<b>Unit Type</b>	<b>Die-group</b>	<b>Maximum % within a 0.1g range</b>	<b>Range (grams)</b>	<b>Total sample size</b>	<b>Max % in a 0.05g range</b>	<b>Range (grams)</b>
LFH	19	77	1.19–1.28	314	47.5	1.21–1.25
LFH	5	68	1.18–1.27	72	36.1	1.22–1.26*
Anted	1	64	1.16–1.25	325	39.4	1.19–1.23
Ecen	1	71	1.19–1.28	641	43.7	1.22–1.26
Ece B	1	71	1.18–1.27	226	40.3	1.21–1.25
Ece A	All	70	1.19–1.28	268	41	1.22–1.26
BHC	All	45	1.13–1.22	130	26	1.18–1.22
BHB	All	66	1.13–1.22	29	34	1.17–1.21

Table 4.8. Maximum proportion of hoard Units which fall within weight ranges (\* same result for 1.19–1.23g)

The analysis shows that the weight of these Units was tightly controlled. The greatest accuracy found was die-group 19 of the LFH Issue, of which 77% of a large sample fell within a weight range of 0.1g and 47.5% within a range of 0.05g. Icenian mints were clearly able to strike a high percentage of coins within weight tolerances of less than a tenth of a gram, and were probably seeking greater accuracy than this. Table

4.8 indicates that the target weight for the later Units was approximately 1.24g, with Anted possibly being slightly lower. The table includes two earlier Units, BHB and BHC, which are less well represented in the late hoards. The analysis of these Units is useful in assessing their target weight, but less so in assessing production accuracy as the sample size of BHB is low and BHC is composed of multiple die-groups and the sample is not a single production sequence.

Icenian success in achieving a target weight is further illustrated in Figure 4.3 which shows the sample of 314 coins of LFH die-group 19 as a bar chart.

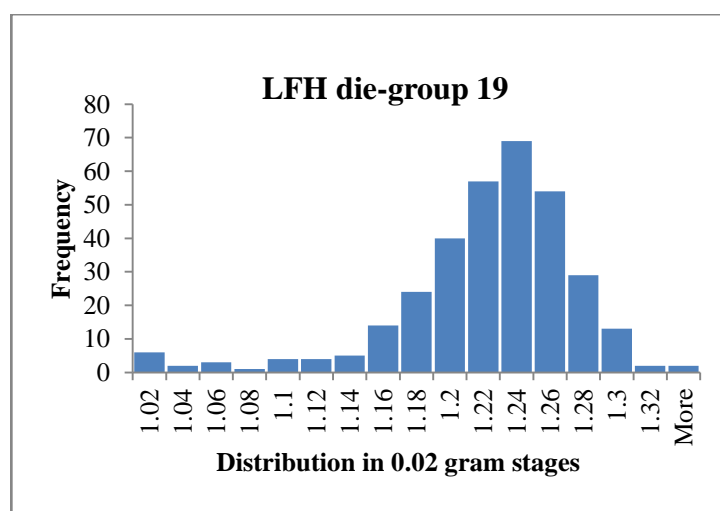


Figure 4.3. The weight distribution of LFH die-group 19 coins from hoards

The difficulty in relying upon samples that are not from hoards is shown in Figure 4.4 which shows a bar chart for the 25 coins of LFH die-group 19 which are recorded as casual losses. There is a remarkable difference in weight distribution between the two samples; there is only one non-hoard coin weighing over 1.2g and no coins fall within the three 0.02g bands which contain the highest number of hoard coins.

This comparison illustrates the extreme care which needs to be taken when assessing the original target weight of coins which have not been found in well-protected hoards.

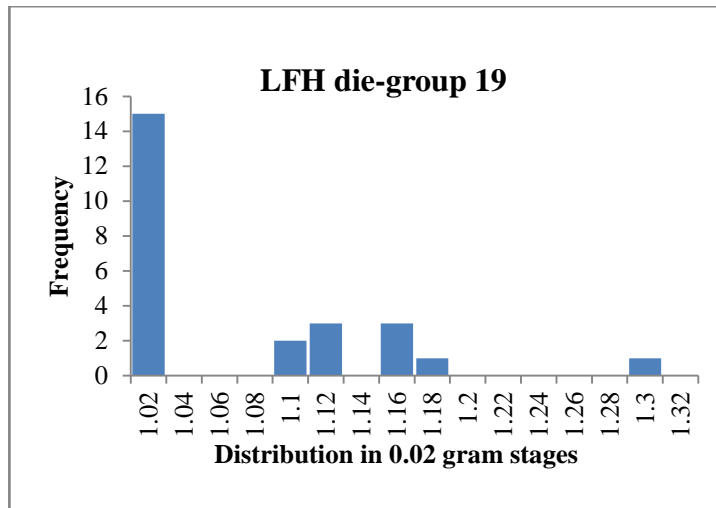


Figure 4.4. The weight distribution of non-hoard LFH die-group 19 coins

In relation to earlier coinages there are relatively large samples available for a few types from the early local period, such as the Bury coinages analysed in Table 4.9, where each ‘0’ represents a coin.

Wt/die-group	Bury A	Bury C	Bury B
Over 1.54	0		0
1.54–1.50	0000000		
1.49–1.45	00000000000000000000	0000	0000000
1.44–1.40	00000000000000000000000000000000	000	00000000000
1.39–1.35	000000000000000000000000	00000000	00000000000000000000
1.34–1.30	0000000000000000	00000	0000000000000
1.29–1.25	00000000	0000	0000000000
1.24–1.20	00000000	00	00000000
1.19–1.15	000000	000	00000000
Below 1.15	0000000	000000	00000000000000000000

Table 4.9. Weights of main Bury Units

Bury A probably had a target weight in the range of 1.4–1.44g and that of Bury B was a somewhat lower 1.35–1.39g. Bury C is less clear but probably similar to Bury B. Table 4.10 indicates that target weight fell to 1.3–1.34g for LFA and LFC.

<b>Wt/die-group</b>	<b>LFA</b>	<b>LFC</b>
Over 1.54	0	
1.54–1.50	0	
1.49–1.45		00
1.44–1.40	0000000	00000
1.39–1.35	000000	0000000000
1.34–1.30	0000000000000000	0000000000000000
1.29–1.25	00000000	000000000
1.24–1.20	00000	0000000000000000
1.19–1.15	00000	0000000000000000
Below 1.15	000000000000000000	000000000000000000

Table 4.10. Weights of Large Flan Units

This analysis implies a gradual decline in target weight from Bury A to LFA and LFC. Accuracy was clearly important but I have been unable to quantify the extent to which this was achieved. LFA and LFC have large flans and often suffer damage in the soil, as illustrated by the large number of underweight examples in Table 4.10.

I have also been unable to accurately assess target weights or levels of production accuracy for subsequent coinages, prior to those heavily represented in the revolt period hoards. The problem is illustrated by the weight distribution of Snettisham Units (Table 4.11).

<b>Weight grams</b>	<b>No. coins</b>
Over 1.35	0
1.34–1.30	00
1.29–1.25	000
1.24–1.20	00000000
1.19–1.15	000000
1.14–1.1	0000000000000000
1.09–1.05	0000000
Below 1.05	(21)

Table 4.11. Weights of Snettisham Units



Type of Unit	Reference	Dies	Weight
Bury A	J1295	E:17	1.46
Bury B	87 0584	B:1	1.41
Bury B	J1028	G:22	1.41
Bury Pallas Half Unit	J1230	B:2	0.71
Bury Pallas Half Unit	J1225	A:1	0.77
LFC	00 1192	E:3	1.31
LFC	03 0093	B:1	1.31
LFA	J809	F:11	1.40
Snettisham	02 0243	E:11	1.21
Snettisham	96 1976	M:18	1.11
Snettisham	J864	M:18	1.20
Plouviez	06 0169	E:8	1.07
Plouviez	J939	C:6	1.09
Irstead	J407	A:1	1.17
Irstead	J1495	B:2	1.13
EBH	J599	A:2	0.95
EBH	02 0193	B:6	1.16
BHC	J454	O:33	1.19
BHC	02 0735	DA:74	1.01

Table 4.12. Weights of undamaged Units

The weight distribution of Plouviez, Irstead and EBH Units are shown in Table 4.13.

Grams	Plouviez	Irstead	EBH
Over 1.29	00	00	
1.29–1.25		00	
1.24–1.20		000	
1.19–1.15		00000	0
1.14–1.10	000	00	00
1.09–1.05	00	00000	0
1.04–1.00	0	000	000000
0.99–0.95	00	000	00000
Below 0.95	(7)	(9)	(15)

Table 4.13. Weight of Plouviez, Irstead and EBH Units

I infer from the above analysis that Snettisham Units probably had a target weight of 1.2–1.24g, and that of Irstead Units was somewhere in the range 1.15–1.24g, but

probably lower than the Snettisham Units. The results for the Plouviez and subsequent EBH Units are inconclusive, the condition of most known examples being poor.

A summary of likely target weights for Units based on all available evidence is shown in Table 4.14.

<b>Type of Unit</b>	<b>Possible target weight in grams</b>	<b>Notes</b>
Bury A	1.4–1.44	Table 4.9
Bury B	1.35–1.39	Table 4.9
LFA and LFC	1.3–1.34	Table 4.10
Snettisham	1.2–1.24	See above
Irstead	1.15–1.24	Probably below Snettisham – see above
EBH		Inconclusive
BHB/BHC	1.13–1.22	Table 4.8
Saham Toney		Inconclusive
EPH(B)	1.17–1.21	Late hoard analysis
EPH(A)		Data unclear – probably similar to late Units
Late Units	1.21–1.26	Table 4.8

Table 4.14. Likely original target weights of major Unit types

During the course of the Icenian coinage the target weight of the Unit gradually declined, but there was a modest increase in weight for the final types of Unit. The results for the early Bury A and B types imply that there was considerable focus on achieving a target weight, although the absence of hoard material does not permit the measurement of minting accuracy. The results for the early denominational Units are more ambiguous. It is possible that controls were looser for Plouviez and EBH Units than for Snettisham and Irstead Units. The final types of Unit were produced with remarkably effective weight control.

Although rigorous control of the weight of Units can only be demonstrated for late Units, I think it likely to have been a feature throughout the entire period of coinage

production. The weight distribution of the early local types, shown in Table 4.9 and Table 4.10, suggest to me a clustering of samples around a target weight.

### 4.3.5 Half Units and their relationship to Units

Most types of Half Unit are rare and have suffered damage in the soil. Neither target weight nor production-accuracy can be reliably assessed, as illustrated by Figure 4.6 which analyses the two largest groups of Half Unit.

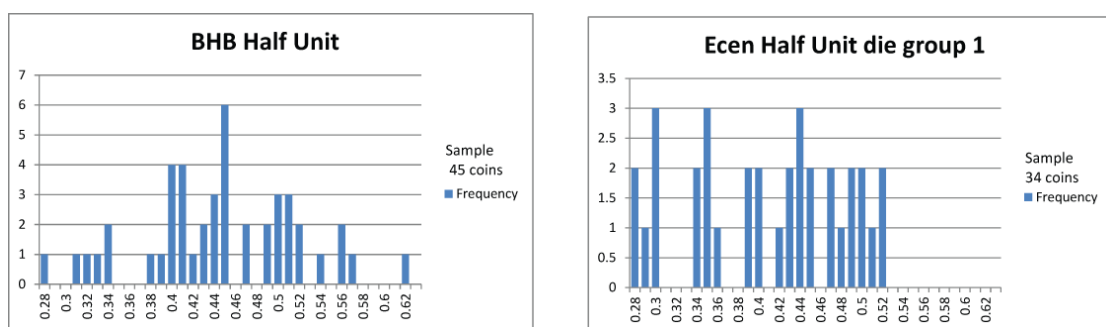


Figure 4.6. Weights of Half Units

Neither example shows a pattern indicating a target weight. Five of the BHB Half Unit weights exceed 0.52g, the maximum recorded for an Ecen Half Unit from die-group 1.

A number of Bury Half Units survive in good condition. Weights are analysed in Table 4.15 and those of Bury Pallas variety I appear to have a target weight of some 0.65–0.75g. This is approximately half the weight of the early Bury Units.

Wt/sub-type	Pallas variety I	Pallas variety II	Butterfly	Snettisham
Over 0.75	0			
0.74–0.70	00		0	
0.69–0.65	00		0	
0.64–0.60			0	
0.59–0.55		0	00	0
0.54–0.50		00		000
0.49–0.45		0		000
0.44–0.40		0	0	0000
Below 0.40		0		0

Table 4.15. Weights of early local and Snettisham Half Units

Other observations on the commoner late Half Units are as follows:

- The two highest BHC weights are 0.52g and 0.53g.
- The highest non-plated Anted is 0.54g, the next highest 0.49g.
- The results for Ecen die-group 1 are shown in Figure 4.6; seven examples survive from other Ecen die-groups which are heavier, weighing between 0.55g and 0.57g.

The target weight for the Units that relate to these late Half Units is 1.21g–1.26g for Ecen and Anted, and slightly less for BHB and BHC. The limited data available indicates that throughout the coinage Half Units were intended to be just that. The maximum weight is usually less than half of the Unit, but the shortfall is insufficient to suggest a different denominational relationship and may simply reflect production cost and minting profit.

#### 4.3.6 Summary

Wherever reliable information has been found, it has shown that great care was taken to ensure that the weights within each type were consistent. Many examples of remarkable standards of accuracy have been found, including 77% of LFH die-group 19 production

falling within a range of a tenth of gram and 58% of Snettisham Quarter Staters falling within a range of a twentieth of a gram.

The analysis has shown that there were fixed weight ratios between denominations in the same metal. A Half Unit is accurately described, however all but the earliest Quarter Staters, are actually fifths of Stater.

#### **4.4 Metallurgy of the coinage**

Icenian coinage was only produced in alloys of silver or gold. The following two sub-sections summarise the results of research undertaken on metal content of gold and silver coinage and their implications for its likely use. The final sub-section addresses the tin content of Icenian coinage.

##### **4.4.1 Gold**

The key work to date on the Icenian gold coinage has been carried out by Peter Northover at the University of Oxford (1992) and by Michael Cowell using coins from the British Museum collection (Cowell 1992; Hobbs 1996). These results are listed in Appendix V, together with a small number of additional analyses conducted by Peter Northover at my request and not previously published.

The gold coinage is composed of an alloy of gold, silver and copper together with traces of other elements. Tin is sometimes at a significant level (in several coins comprising between 1% and 5%). The mix of the three main elements determines colour. Copper-rich alloys appear red and those which are silver-rich, appear a paler yellow. A discussion of different alloys used in the British and Gallo-Belgic coinages, their colour and other properties, is included in the 1992 publications of both Northover and Cowell. In this section if I refer to an alloy as a three-part ratio, for example 60:30:10, this is the

ratio of gold:silver:copper. If the ratios do not total 100%, it is due to the presence of other trace or minor elements.

When assessing metal content a number of samples are usually taken and published results are typically the average of these. Table 4.16 summarises the tests on five gold coins, showing the number of tests, average metal content and the standard deviation ('SD') of the metal tests for each coin.

Type	Ref	Number of tests	Gold %	Gold SD	Silver %	Silver SD	Copper %	Copper SD
JA	J239	6	55.24	0.45	34.72	2.41	9.65	1.91
JB	01 0283	6	31.47	1.53	43.87	2.54	24.16	1.66
JB	08 8917	12	15.87	1.96	35.33	12.09	46.48	11.49
Ir Q	J541	10	37.95	1.40	19.62	5.65	41.97	4.50
Ir Q	02 0240	10	39.53	1.42	19.69	5.79	40.68	4.45

Table 4.16. Tests by Peter Northover

Gold has a low standard deviation, indicating that it is relatively even in distribution throughout the alloy in each of the coins tested. The results are less consistent for the other two metals, varying most when the alloy contained the least gold. These results suggest that copper and silver are likely to form separate phases when in an alloy with gold, as they do in the simpler copper and silver alloys (4.4.2 below). Thus caution needs to be exercised when reviewing test results for alloys of gold, but the gold content is likely to be reasonably accurate.

All known test results on Icenian gold coinage are averaged and summarised by type in Figure 4.7. The results are plotted in chronological order with the earliest coinages on the left. Results are either for types or die-groups of types.

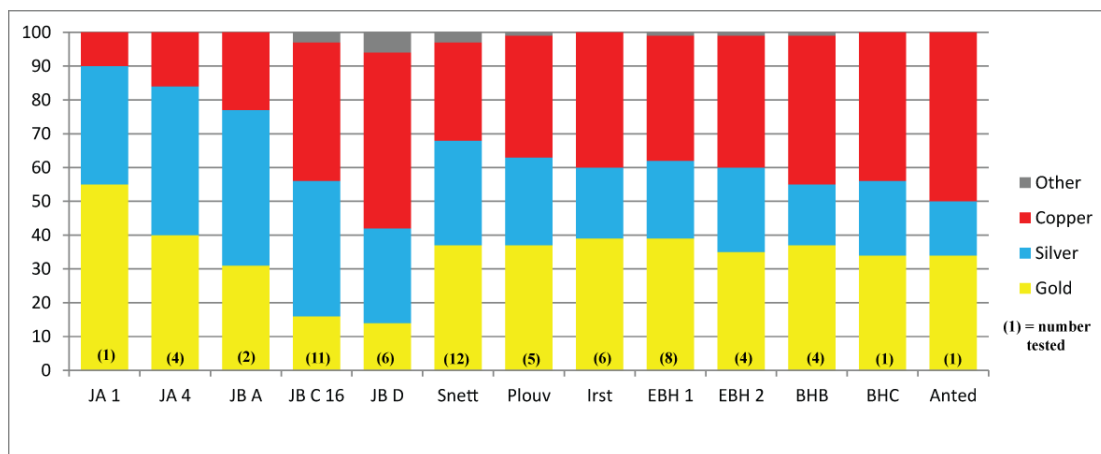


Figure 4.7. Average metal content of Staters

The earliest Stater, JA die-group 1, has the finest alloy at 55:35:10. This is similar to the alloy of the GB E Stater (59:31:10 per Northover 1992: 282) and the Ingoldisthorpe Stater (see II.1.2). Fineness then deteriorates during the production of the remainder of the JA and JB Staters. The Snettisham Stater, the first denominational Issue, re-establishes a higher bullion level, although not to the fineness of JA Staters. There follows a steady decline in the bullion content of the coinage, manifested most clearly in a reduction in silver content.

The same data are repeated in Table 4.17 with the full names of the types or die-groups ('dg'). Also shown is the standard deviation of the tests for each of the elements, as a percentage of the total mass of the coin.

Type and die-group	No. of tests	Gold %	Silver %	Copper %	Other %	SD % Gold	SD % Silver	SD % Copper
JA die-group 1	1	55	35	10		N/A	N/A	N/A
JA die-group 4	4	40	44	16		1.3	1.9	0.9
JB sub-type A (dg 1)	2	31	46	23		0.7	2.2	1.5
JB sub-type C (dg 10)	1	26	46	28		N/A	N/A	N/A
JB sub-type C (dg 16)	11	16	40	41	3	5.3	6.3	10.8
JB sub-type D	6	14	28	52	6	3.6	2.4	5.9
Snettisham	12	37	31	29	3	2.5	4.6	6.4
Plouviez	5	37	26	36	1	2.7	8.5	6.6
Irstead	6	39	21	40		3.1	2.6	3.3
EBH die-group 1	8	39	23	37	1	5	5.1	8.6
EBH die-group 2	4	35	25	39	1	3.6	0.7	3.5
BHB	4	37	18	44	1	1.7	7.1	5.3
BHC	1	34	22	44		N/A	N/A	N/A
Anted	1	34	16	50		N/A	N/A	N/A

Table 4.17. Stater types with number of coins tested, metal ratios and standard deviation

As the coin tested from die-group 1 of the JA Stater is similar in composition to GB E it is tempting to conclude that the first Icenian gold coinage was composed of recycled GB E Staters. This is probably the case, although this assumption is not fully supported by the metal analysis. In common with some later Icenian coins, the JA Stater tested has a significant tin content at 0.17%, whereas only two of the 12 GB E's tested by Northover registered tin, the highest being 0.03%. Further testing is needed in order to confirm whether or not this particular Icenian result is anomalous.

The test results of the four JA staters from the large die-group 4 are all similar, as confirmed by low standard deviations. The average ratio of 40:44:16 is not common in the

British series but is close to that of the British B or Chute Stater of the south-west (Cowell 1992: 210).

The JB series has a much-reduced gold content. This is a complex series with significant variation in the alloy. The two coins tested from sub-group A (both from die-group 1) are similar and have the highest gold content of the type, whereas the six results from sub-group D are also similar but are highly debased. The large die-group 16 of sub-type C shows significant variation in metal content; this is apparent from the coins, as some appear golden and others very darkened. No tests are available for the other JB die-groups.

Finer coinage was re-introduced with the Snettisham series and the subsequent denominational Issues. Six Snettisham Quarter Staters from die-group 1 have been tested and reveal a metal content similar to the Staters, implying production from a common pool of metal. Only one die-group 2 Quarter Stater has been tested and was revealed to be more debased at 29:22:45.

The six Irstead Staters tested included two from die-group 1; these had the highest gold content at 41% and 41.4%, implying that the Irstead Stater die-groups represent a chronological sequence with a declining gold content. The only Irstead Quarter Stater which has been subjected to metal analysis has a ratio of 40:20:40, similar to the Stater. This mix produces a red gold (Northover 1992: 240, fig. 1), the colour of most Irstead Quarters. A minority are yellow, suggesting less copper and more silver in their composition. The colour of these Quarter Staters is not strictly related to chronology, as three examples struck from dies G:8 have been compared side by side; both 02.0188 (the earliest strike) and J952 (the latest) are red gold whereas the intermediate coin 62.0147 is yellow.

It appears that there may have been a drop in gold content between die-group 1 and die-group 2 of EBH with the average falling from 39.2% to 35.4%, although results

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume were erratic in die-group 1, as shown by the high standard deviations. The four BHB Staters suggest a gold content only slightly lower than the average of the EBH Staters but with a marked reduction in silver from an average of 24% to 18%. The reduction in silver would have been even more marked but for an early coin from BHB die-group 1 which had a high silver content at 29%. A BHB Quarter Stater from dies A:1 has a ratio of 38:20:42 similar to both BHB Staters and the Irstead Quarter Stater. BHB Quarters are typically red gold in colour. Only a single BHC Stater has been tested which had a lower gold content than any of the BHB Staters, implying some debasement between BHB and BHC.

No gold coinage has yet been found that relates to the large LFH Issue, and the gold of the contemporary Anted and Ecen Issues was produced in low volumes. The single Anted Stater tested reveals continuing debasement, its copper content being only exceeded by the late JB Staters.

#### **4.4.2 Silver**

Megan Dennis and Peter Northover have analysed many Icenian coins using electron probe microanalysis with wavelength dispersive spectrometry at the Department of Materials at the University of Oxford. Certain results have been published with additional technical information by Peter Northover (1992), and others are included in Megan Dennis's doctoral thesis (2005). Analysis has also been carried out at the British Museum by M. R. Cowell on coins from the Field Baulk hoard and Stonea Grange excavations, using energy dispersive X-ray analysis in a scanning electron microscope. An area on the edge of each coin without corrosion was selected and this was polished for testing (Cowell 1996). These results are all included in Appendix IV, together with a few additional analyses conducted by Peter Northover at my request and not previously published.

Certain transposition errors in Dennis's printed thesis (2005) are corrected in Appendix IV.

In antiquity, the silver used to manufacture coins and other objects was not pure but contained traces of gold, bismuth, lead and other elements associated with the ore from which the silver was extracted, or with the extraction process itself (Craddock 1995: 211–4). The combined level of these four named elements is shown in Appendix IV as the bullion content of the coin. Unfortunately the measurement of the bullion content of ancient coins is far from problem free, particularly where there has been debasement. Alloys where the silver content exceeds 90% will usually solidify into a single homogeneous phase. Below this figure the alloy will separate into two distinct phases, one copper-rich and the other silver-rich, the proportions being determined by the alloy composition (Butcher and Ponting 2005: 173). A further complication arises as a result of the skill of ancient mints in enriching the surfaces of their coins to disguise any decline in silver content. Such 'depletion silvering' is effected by the removal of copper from the surface layers and can create a surface which resembles plating. Butcher and Ponting review these techniques and provide references to other literature (2005: 173–4).

The most reliable method of assessing the ratio of silver to copper in a heavily debased coin is Neutron Diffraction Analysis, an extremely expensive process which is capable of quantifying the copper-rich and silver-rich phases of which the coin is composed. This process has been used by Farley to examine North-Eastern LIA silver coinage and is described in her doctoral thesis (2012: 53–8). Unfortunately this technique has not yet been used to examine Icenian coinage. Dennis and Northover both sought to penetrate the surface layers by grinding and polishing an area on the edge of the coin. Within this area Northover took three separate analyses of areas of 50 microns square and Dennis five or more analyses of areas 10 microns square. The average of their readings for any particular coin is included in Appendix IV; this is all that is available in most

published material. An examination of the individual analyses reveals the difficulty of assessing the precise composition of the alloy. The test results vary significantly depending upon whether the test was of a copper-rich or silver-rich area, or an area of surface enhancement. Dennis sought to get meaningful results for debased coinage by choosing one test-point in an area of copper-rich dendritic growth, one on silver-rich eutectic and the others in areas where these were both present. On occasion a sixth test was also taken on the area of surface enrichment (Dennis 2005: 56). These results were then averaged to indicate the overall metal content.

Dennis's five 10 micron square measurements of silver content for each of three Ecen coins, a sequence chosen at random from her data-set, are shown in Table 4.18. These three sets of tests illustrate the differences between the different phases with, in the most extreme example MD7, the individual tests ranging from 25.1% to 73.6% silver content. Two of her sets of test results from the Bury A coinage are also shown, and their consistency demonstrates the relative reliability of results where silver exceeds 90% of mass.

Coin reference	Silver percentage					
	Test 1	Test 2	Test 3	Test 4	Test 5	S.D.
Ecen						
MD 66	<b>92.5</b>	84.2	89.2	84.0	<b>66.5</b>	10.04
MD 7	<b>25.1</b>	44.5	49.6	72.7	<b>73.6</b>	20.46
MD 34	66.9	<b>48.7</b>	77.9	<b>89.4</b>	83.9	16.12
Bury A						
MD 75	91.4	<b>93.3</b>	<b>88.3</b>	92.2	92.8	1.98
MD 1	<b>97.0</b>	97.0	98.2	<b>98.7</b>	98.3	0.79

Table 4.18. Test results showing the varying silver content of separate test sites

Dennis concluded that the early coinage typically contained about 5% copper, but that later coinages were probably further debased by the addition of increasing amounts of copper to this mix. She noted that the level of copper in the early coinage is similar to that

found in Roman coinage of the period; she refers to Walker (1976) as evidence for a copper level in the Roman coinage of up to 7%. This work by Walker on Julio-Claudian and subsequent Roman Imperial coinage led her to conclude that the metal within the early Icenian coinage came either directly, or indirectly, from recycled Roman Denarii with no additional debasement in Britain (Dennis 2005: 2.2).

Butcher and Ponting have analysed Julio-Claudian Denarii (2005) showing that the Denarii of Augustus and Tiberius usually had a bullion content of over 99.5%. Walker also found that most Denarii of these reigns had very high levels of silver, the lowest being 94%.

Recent research by Pardini and others used x-ray fluorescence and laser-induced breakdown spectroscopy to examine over 100 Republican Denarii. These tests revealed that, except in times of conflict, most Denarii had less than 1% copper and all less than 2% (2012: 158, fig. 4). The legionary series of Mark Antony clustered at about 95% silver, although there were a few which were much more debased with the lowest having between 65% and 70% silver (2012: 159, fig. 6). These results for Republican silver are similar to those reported by Crawford (1974: 570–1) and Walker (1980).

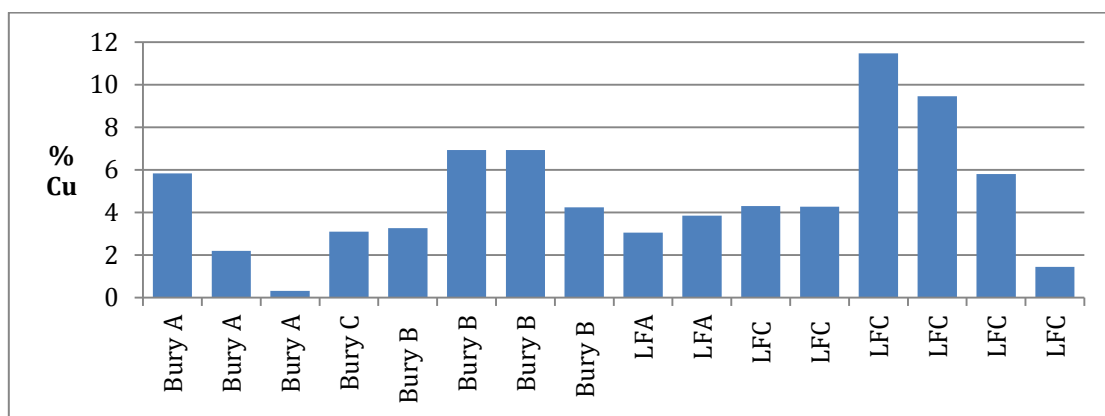


Table 4.19. Copper content of early Units (from Dennis 2005: appendix 4)

Table 4.19 shows the copper content of early Icenian Units; this is higher than that of most Republican and early Imperial Denarii. The only exception is the Legionary series

of 32–31BC, but it would seem illogical for Icenian coinage to be largely composed of Denarii struck to finance the civil war against Octavian. Thus it appears that if the source material for the earliest Icenian coinages is Republican Denarii, then it was debased with copper prior to incorporation into the coinage.

Northover and Dennis reveal that gold is a significant trace element within the Icenian silver coinage, gold in a silver alloy being associated with the silver component. The average gold content across all tests in the entire Icenian silver series was 0.448% of the bullion content with a standard deviation of 0.225%. Vincenzo Palleschi, who undertook many of the test results detailed in the Pardini paper, reports that the average gold content of the non-legionary Republican Denarii tested was around 0.5%, with variability of plus or minus 0.4% (pers. comm.). These results confirm that Roman Republican coinage could have been a significant component in the Icenian silver, whereas imperial coinage appears to have had too much gold; comparable figures extracted from the work of Butcher and Ponting for the coins of Augustus and Tiberius (2005: table 1) were 0.743% gold content with a standard deviation of 0.459%.

The early coinages have a high silver content and therefore relevant metal analysis should be accurate. The bullion content of relevant tests are summarised in Table 4.20 (see also Appendix IV).

<b>Type of Unit</b>	<b>Number of tests</b>	<b>Bullion Content %</b>	<b>Average Bullion %</b>
Bury A	3	94, 97.8 & 99.5	97.1
Bury C	1	97	96.8
Bury B	4	90, 91, 96 & 96	93.5
LFA	2	96 & 97	96.5
LFC	6	88, 90, 93, 96, 96 & 98	93.6
Snettisham	3	82, 91 and 92	88.5
Plouviez	1	55	54.7
Irstead	1	94	94.5
EBH	2	84 & 93	88.2

Table 4.20. Bullion content of early silver coinages (from Dennis 2005)

The above analysis suggests the following:

- The finest coinages are Bury A, Bury C and LFA which all show an average bullion content above 95%.
- Bury B and LFC are also very fine, averaging over 93% bullion.
- Snettisham and EBH average 88% bullion, but the results are more erratic.
- The single Plouviez Unit tested had only 55% bullion; this is unexpected and further tests are needed to establish if this type was debased or the result is an anomaly.

There are numerous tests of the later coinages but the results are problematic due to the difficulty in assessing the silver content of heavily debased Units. The methodologies chosen by the three researchers have given inconsistent results. Table 4.21 shows the number of tests undertaken by each researcher on three types of late Unit and their average results.

Type	Dennis			Northover			Cowell		
	No.	Average silver	SD	No.	Average silver	SD	No.	Average silver	SD
Ecen	13	77%	12.5%	8	55%	12.8%	7	49%	5.1%
Anted	6	74%	13.8%	2	46%	1.6%	4	44%	2.5%
LFH	16	72%	16.4%	6	56%	7.7%	11	50%	3.3%

Table 4.21. Differing test results for the silver content of late Units

Dennis's results show consistently higher silver content than the other researcher's. The difference with Northover's results is unexpected as they used similar methodologies, although Northover's sample covered 150 microns square whereas Dennis's was of 50 or sometimes 60 microns square. It is possible that the larger surface areas tested by Northover and Cowell resulted in a more representative sample, as their results are closer

and generally have a lower standard deviation. The results of Cowell show the lowest silver content of the three. This is surprising, as the technique used by Cowell is usually considered likely to over-estimate silver, because it is harder to avoid areas of surface enrichment. The results of both Cowell and Northover imply that the late Icenian coinages had a reasonably consistent silver content of approximately 45% to 55%. In the absence of tests using Neutron Diffraction Analysis it is impossible to confirm whether or not the mix of the alloy was an important factor in the production of later Icenian coinage, but in view of the correlation between the results of Northover and Cowell I strongly suspect that it was. It was probably targeted at a 50:50 mix of silver and copper.

Tests of mid-denominational period Units are also inconsistent. In most cases Dennis's and Northover's results are similar and Cowell's much lower. Table 4.22 shows the average results for each coin tested by the researchers.

Type of Unit	Dennis bullion %	Northover bullion %	Cowell Silver %
Ali Scavo		92	
BHB (A)	81 & 95	92	42 & 43
BHB	83, 89, 92, 94 & 95	93	51 & 52
BHC	60, 62 & 76	68	46 & 46
BH CD	77 & 88	63	51
Saham Toney	66, 69, 93 & 97		
EPH(B)	83 & 88	89 & 94	
EPH(A)	70 & 79	40 & 61	33

Table 4.22. Bullion content of mid-denominational coinages

The tests of BHB Units are strange. Dennis's five tests range from 83% to 95% silver and Northover's single test produced a similar result, yet Cowell's two tests indicated little more than 50% silver. The coins tested by the three researchers are from the same sequence of production, and Cowell and Dennis tested coins struck using the same dies. I suspect that these differences relate more to the differing methodologies of the researchers than to the variability of the Icenian alloy.

The tests in Table 4.22 give little confidence in any assessment of the bullion content of the mid-denominational coinages, although all results imply that the BHC coinage is more debased than BHB. The results of Cowell are the most consistent, although unfortunately this does not necessarily mean that they are the most accurate. Regrettably he did not test older types which would have given a further opportunity to compare the results of the three researchers.

Unfortunately it is not possible to draw conclusions about the bullion content of other than the earliest and latest silver coinages.

#### 4.4.3 Tin content

The problem created by the phasing of copper and silver in an alloy does not invalidate the findings of Dennis and Northover in respect of trace or minor elements. An interesting feature of their work has been the relatively high levels of tin identified in the EPH(A) and LFH Units of mint group B, as revealed in Table 4.23.

Type	Tests	Tin %	SD %
BHB	6	0.049	0.059
BHC	4	1.149	1.541
Anted	15	0.354	0.501
Ecen	21	0.562	0.533
Ece B	6	0.713	0.774
EPH(A)	4	1.581	0.883
LFH	21	1.884	1.076

Table 4.23. Average tin content of later Units, with standard deviation in red

Occasionally Units of other types have a high tin content, such as a BHC Unit with 3.4% and a EPH(B) Unit with 5%, but the two Mint B Units, LFH and EPH(A), are consistently high. These results imply that either Mint B had a different production methodology or a different source of raw material. The high tin content in LFH Units was

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume noted by Northover (1992: 257); the similarly high tin content found in the earlier EPH(A) series reinforces the identification of Mint B as a separate entity.

Tin is associated with the copper content of the coinage. The occasional coins with an exceptionally high tin content appear to be due to a potin-like copper alloy being used to debase the silver (Dennis 2005: 88–94); Farley found a similar alloy was sometimes used in the North-East (Farley 2012: 66–7).

Tin is also present in gold coinage and a larger proportion of Icenian coinage contains detectable amounts of tin, than other British coinages of similar fineness (Cowell 1992: 225). The quantity of tin also tended to be higher with several containing between 1 and 2% which Cowell assumed meant that the copper added to the alloy was in the form of tin bronze, often with a high antimony content. The high tin content is particularly evident in Plouviez and EBH Staters, where the average for each type, in cases where this element has been sought, is approximately 0.7% of mass.

#### **4.5 Relative values of Staters and Units**

In this section I use the results of the study of metallurgy and weight to assess whether there was a standard ratio of value between Staters and Units. Any such ratio would imply that Icenian coinage had a fixed value in a monetised economy.

A key variable in any such assessment is the relative value of silver and gold. There is no information available on how the Iceni valued the two metals, if indeed they did so in this sense. In Rome, during the reign of Augustus, gold was valued at some 12.5 times an equivalent weight of silver. One gold Aureus of 7.96g being equivalent in value to 25 silver Denarii of 3.99g (Sutherland 1984: 3). It appears reasonable to assume that any relative values used in East Anglia would have been similar. If the Iceni were trading directly or indirectly with Rome, to have used a different ratio would have invited

arbitrage by Roman traders, which in turn would have driven the metals towards parity with the Roman ratio.

In Table 4.24 I attempt to assess the relationship between Staters and Units for the major Icenian coinages. The weight and metal contents are based on the analysis summarised earlier in this chapter; however a number of observations or assumptions are relevant:

- Bury A has been assumed to have been minted alongside die-group 4 of the JA Stater (2.5.1). LFC is taken a proxy for Units which were contemporary with JB Staters.
- The weight and metal content for the EBH Unit are best estimates based upon limited data.
- The Plouviez Issue is ignored as there is only a single anomalous metal analysis for the Unit.
- Stater metallurgy for JA die-group 1, BHC and Anted Staters are each based on a single test.
- The Anted and BHC Units are assumed to have a silver content of 50%.
- All calculations of relative value ignore the value of copper, which is likely to be minimal.
- Gold is assumed to be 12.5 times as valuable as silver for the same mass.

Period	Stater type	Wt	Au %	Ag %	Unit type	Wt	Ag %	A	B	C	D
Early local	JA (group 1)	6.17	55	35							
	JA (group 4)	6.12	40	44	Bury A	1.42	97	4.3	53.9	23.4	24.2
	JB (group 1)	5.85	31	46	LFC	1.32	94	4.4	55.4	19.2	20.4
	JB (type D)*	5.3	14	28	LFC	1.32	94	4.0	50.2	7.6	8.1
First denom	Snettisham	5.6	37	31	SU	1.22	88	4.6	57.4	22.7	25.7
	Irstead	5.6	39	21	IAU	1.20	95	4.7	58.3	23.7	25.0
	EBH	5.45	37	24	EBH	1.16	88	4.7	58.7	22.9	26.0
Mid-denom	BHB	5.42	37	18	BHB	1.17	91	4.6	57.9	22.3	24.5
Late	BHC	5.35	34	22	BHC	1.2	50	4.5	55.7	19.9	39.9
	Anted	5.39	34	16	Anted	1.22	50	4.4	55.2	19.5	39.0
Standard deviation – all periods								0.22	2.7	5.0	6.7
SD as % of average relative value of Stater – all periods								5%	4.8%	24.9%	27.9%
Standard deviation – denominational periods only								0.12	1.43	1.72	2.67
SD as % of average value of Stater – denominational periods								2.6%	2.5%	7.9%	9.9%

Table 4.24. Relative values of Staters and Units

The table shows the following calculations:

- A. The Stater expressed as a multiple of Units by weight.
- B. The value of the Stater as a multiple of Units if the Stater was 100% gold and the Unit 100% silver.
- C. The value of the Stater as a multiple of Units based on the Staters actual metal content but assuming the Unit is 100% silver.
- D. The value of the Stater as a multiple of Units based on the actual metal content of both Staters and Units.

The calculations indicate that throughout the period of coinage production the weight of a Stater and that of a Unit were related (columns A and B). The reducing weight

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume of the Stater was broadly tracked by that of the Unit. This correlation between the two denominations became closer during the denominational coinages than in the early local period. This is shown in Table 4.24 by the standard deviations at the bottom of the columns A and B, which are lowest when they relate to the denominational period alone.

It appears that no efforts were made to maintain the relative value of the two denominations during periods when one or other was debased. During the early local period Units were not debased or reduced in weight, to reflect the debasement of the JB Staters. Similarly Staters do not reflect the debasement of later Units.

The analysis suggests that in terms of actual metal content a Stater was worth some 25 Units throughout much of the period of production. This relationship was lost as the JB series was debased, dropping as low as 8 Units to the Stater, but was reinstated with the first denominational coinages. The relationship was lost again with the debasement of the late Units.

#### **4.6 The scale of coinage production**

The die-study has provided evidence about the scale of production of coinage in LIA East Anglia. The work on metals has given information about the fineness of the coinage and I have much evidence about target and actual weight levels. This section of the thesis will seek to combine these data to give an indication of the scale of coinage in terms of precious metal usage.

The major uncertainty in assessing overall production volume is the number of coins that were struck by each die. A common estimate is some 10,000 coins per die; this is based upon experiments by Sellwood (1963) using 20% tin-bronze dies to produce heavy 'Greek' coins weighing some 17g each in 99.5% silver. Sellwood found that with hot-striking an average of 8000 coins per reverse die would not be unreasonable, based upon the life of the dies that he produced. He felt that his obverse die would have

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume produced 16,000 coins and thus considered 10,000 as a probable minimum. Possibly the best data on the durability of dies which were produced and used ‘professionally’ comes from a study by Martin Allen on medieval English minting (2012). Allen had sufficient data in terms of output and die acquisitions for the period 1248 to 1327 to assess that each silver penny reverse die produced between 11,010 and 23,000/27,000 coins per reverse die, and that obverse dies produced 20,000 to 50,000 coins (2012: 132).

Surviving medieval coins dies had the coin designs engraved onto steel die-caps which were welded to iron shanks (Allen 2012: 108). The only known British surviving LIA coin dies are bronze and may well be forgers’ dies. Surviving continental dies are also bronze and those analysed have a high tin content (de Jersey 2009: 258–9). Sellwood (1963: 219) discusses the advantages of bronze in die manufacture, suggesting that with a tin content of around 20% it hardens on slow cooling.

Sellwood was producing much larger coins than any struck by the Icenii; this implies that he needed greater force to strike them, causing greater die wear. Countering this, the silver alloy used for much Icenian coinage would be harder than pure silver at room temperature, although Sellwood considered this to have little effect when working at high temperature.

It is probable that the East Anglian dies were less robust than those used over a thousand years later. Therefore in order to calculate indicative production volumes I have assumed that reverse dies produce approximately 10,000 silver coins and obverse dies 20,000, giving average production per die of approximately 6700 coins when using numbers combining obverse and reverse dies.

Unfortunately, little success has been had in replicating striking the gold alloys used in Stater production. De Jersey found problems when trying to strike replica Staters in an alloy of 40% gold, 20% silver and 40% copper. It proved impossible to get the required depth of design; when excessive pressure was applied in order to attempt this, the

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flan was damaged (2009: 268). Haselgrove, when estimating Stater production during the Gallic Wars, assumed an output per pair of dies of only 1000 coins. He considered that episodic production may have precluded dies working to full capacity and, in a mint working under pressure, he suspected that breakages would have been high. It is clear that Haselgrove intended to be conservative in his estimates (1984: 90). When considering Gallic Wars Stater production, de Jersey used the same output levels per die as Haselgrove, largely because of the immense numbers of Staters and usage of gold that would have been involved if higher estimates had been used (de Jersey 2009: 266).

Clearly the striking problems encountered by de Jersey had been overcome in the LIA as deep detail on struck Staters is normal. In the absence of meaningful data regarding Stater production per die, I have assumed that output per die is half of that for silver and that Quarter Stater production is similar to silver production. I think it is unrealistic to reduce assumed output per die further, as Haselgrove's fears regarding intermittent production and highly pressured work do not seem to apply. The dies of Icenian Staters form long, well-ordered die-chains and signs of emergency production are unusual.

Indicative calculations of the precious metal used in the Icenian coinage are shown below. In order to produce readily comparable data, metal usage is expressed in kilograms of silver, with gold converted at 1:12.5. Table 4.25 uses my Esty calculations to assess likely die numbers (4.2) and estimates of weight and metal content are based on the data discussed above. The tables indicate gross metal usage; re-coinage can result in metal being recycled into successive coinages.

Period	Kilograms of metal			
	Gold in Staters and Quarters	Silver in Staters and Quarters	Silver in Units and Fractions	Total Silver Equivalent
Early local	877	1425	2313	14,711
First denominational	830	568	1252	12,200
Mid-denominational	454	290	2942	8909
Final coinages	55	32	2176	2986
Later local			303	303
Total	2218	2315	8986	39,020

Table 4.25. Precious metal used in Icenian coinage based on Esty formulae

Table 4.26 provides similar information but using only the dies identified during the study.

Period	Kilograms of metal			
	Gold in Staters and Quarters	Silver in Staters and Quarters	Silver in Units and Fractions	Total Silver Equivalent
Early local	679	1128	1848	11,462
First denominational	714	489	908	10,324
Mid-denominational	392	250	2326	7473
Final coinages	43	25	2050	2610
Later local			234	234
Total	1828	1892	7366	32,103

Table 4.26. Precious metal used in Icenian coinage based on known dies

Both tables highlight the reduction in value of the final coinages relative to earlier periods. It is possible that the above calculations exaggerate production in the earliest

period. The earliest dies appear to have been used on a more local basis, and thus probably did not reach the same level of output as later dies.

The obvious explanations for the drop in value during the final period are either a reduction in available resources or an overestimation of the length of that period, or both. It is clear that gold was progressively reduced as a component of total coinage, but this does not seem to have been compensated for by increased use of silver. If the value of coinage production had stayed constant throughout the whole of the Icenian coin-producing era from, say, 55 BC to AD 50, the periods of production used in the above tables would have had the duration suggested in Table 4.27. The table also shows production periods based solely on Unit die numbers, with production of silver assumed to start later than gold in, say, 40BC.

	<b>Present assumption (table 2.3)</b>	<b>Based on production value (Esty)</b>	<b>Based on die numbers for silver coinage</b>
Early local	55 BC–15 BC	55 BC–15 BC	40 BC–22 BC
First denominational	15 BC–AD 5	15 BC–AD 20	22 BC–11 BC
Mid-denominational	AD 5–AD 25	AD 20–AD 41	11BC–AD 19
Final coinages	AD 25–AD 50	AD 41–AD 50	AD 19–AD 50

Table 4.27. Hypothetical dating based on production levels

The most surprising result of these hypothetical calculations is the low relative value of the final coinages. Table 4.25 indicates that the value of coinage in the final period of production, which I have assumed to last for some 25 years, was only equivalent to some 3000 kilograms of silver, whereas in the mid-denominational period of some 20 years it was nearly 9000 kilograms and in the first 40 years nearly 15,000 kilograms. Table 4.27 shows that if production value per annum had been evenly spread the final coinages could have been produced during only nine years. This alternative is highly

unlikely and hoard evidence suggests that the final coinages were not produced rapidly (6.5.3). I think it much more likely that the value of new coinage from the mints declined as a result of a reduction in the availability of gold and an underlying change in political or economic circumstances.

#### **4.7 The organisation of minting**

In this section I will firstly consider briefly the likely processes involved in the minting of coinage, and archaeological evidence for the presence of mints. I will then summarise the findings from the die-study which assist in understanding the organisation of minting.

##### **4.7.1 Processes of minting and archaeological evidence**

The steps involved in silver coinage manufacture in the LIA seem likely to have been as follows:

- The raw materials of copper and silver were held in granular or powder form.
- They were mixed in the proportions required to create the desired alloy.
- Enough of the mixture to make a single coin was weighed out, and put into a hole in a pre-prepared ceramic tray, probably containing 25 or 50 such holes.
- The trays were heated to a temperature sufficient to smelt the metals and create the alloy; the heating may have been directed to the top of the trays (Longden 2008).
- The resultant pellets of alloy were removed from the trays.
- The pellets were heated and struck between two dies to produce a coin.

The suggestion that metals were held in granular or powder form, and the alloy manufactured within the pellet mould, is speculative. In a study of the coin moulds from the North Thames Ford Bridge assemblage, which were for bronze coinage, the homogeneity of tin concentrations on a metal prill suggested to Longden that the bronze

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume had been pre-alloyed. However small quantities of silver found in the vitrified clay could have resulted from its addition as a separate ingredient (Longden 2008). The work of Landon on the same assemblage of moulds demonstrates conclusively that the holes in the trays were not themselves measuring devices. Quoting my findings about the precise weights of Icenian Units, he concluded that the metal could not have been introduced in a solid state (Landon 2010: 60–1).

The above processes appear to be appropriate for silver, and possibly, with the addition of granulated gold, for Quarter Staters. Staters may have been produced by a different process.

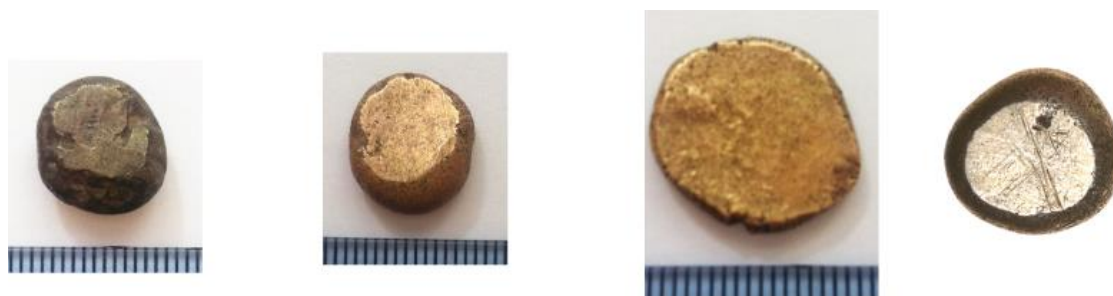


Figure 4.8. Possible Stater flans – from left: ST907, ST850, GC658 and CR78 15

Flattened circular un-marked pieces of gold alloy are often found on LIA sites and are commonly thought to be unstruck Stater flans. Known examples from East Anglia are listed below, and three are illustrated in Figure 4.8:

- Great Cressingham, Norfolk – 5.61g (GC658), flat with a slightly thicker area on one part of circumference, slightly reddish gold.
- Saham Toney – 5.54g (ST850), pellet-like with two flattened faces which appear to be scraped or filed, reddish gold.
- Saham Toney – 5.56g (ST907), similar to ST850 but appears highly debased.

- Beck Row, Suffolk – Chadburn recorded a pale gold blank at 5.46g, a bun-shaped pellet at 5.44g and a further gold pellet with of unknown weight (2006: 435).
- Forncett St Peter – 5.84g (CR78 15), similar to ST850 but lighter gold. XRF testing of this pellet showed it to be 42% gold, 43% silver and 11.5% copper with 2% iron, 0.6% tin and 0.2% lead (test results from Chris Rudd).

These examples have weights which all fall within the range of Icenian Staters and their colour is similar to the Staters which are appropriate to the relevant weight; for example ST850 has the debased appearance of a late JB Stater. The Forncett pellet has the weight and metal content of a late JA Stater with the exception of the iron content which, when noted, has always been minimal. Notwithstanding the unusual iron content I suspect that these objects are unstruck flans for the minting of Staters. Most examples appear to have been produced in pellet form and subsequently flattened whereas GC658 appears to be cast in a flattened shape.

The regular finds of flans may indicate that their preparation was separated from the striking of coinage. It is conceivable that flans had a role beyond being simply an intermediate stage in minting. These flans are an interesting topic for further research which, at the very least, is likely to shed additional light on LIA minting processes.

Silver pellets, ‘blanks’ and droplets have been found at Fincham with LIA coinage but only a minority correspond to the weight of an Icenian silver coin (Chadburn 2006: 435). Other examples of unstruck silver from LIA sites have also been encountered during this study but most are not of an appropriate weight for Icenian silver coinage.

No Icenian coin dies have yet been found, but direct evidence of minting activity is provided by clay pellet moulds in the form of broken trays (Figure 4.9).



Figure 4.9. Fragment of pellet mould from Saham Toney

These have been found at the following sites:

- Saham Toney – six fragments in the stream area (Brown 1986: 8).
- Thetford, Fison Way – 109 fragments (Gregory 1982: 139). They have ‘cups’ with an average diameter of 9mm, a depth of 11mm and are laid out on a grid with 18mm centres. XRF analysis detected silver on the majority of pellet mould fragments. These moulds are of similar dimensions to some of those measured by Mark Landon at Ford Bridge in the North Thames area (pers. comm.).
- Needham, Waveney Valley – a single fragment in a sealed deposit in a ditch with other material dating to c. AD 50 (Frere 1941)

A single sherd was also found at West Stow in Suffolk with pellet mould-like depressions and has been recorded as a possible LIA pellet mould (West 1990: fig 45), but the illustration shows this to be unlikely.



Figure 4.10. Sites with possible evidence of minting

The pellet moulds indicate that minting activity took place at Saham Toney, Thetford and probably Needham (shown in black in Figure 4.10). The evidence from the die-study coupled with distribution analysis suggests that there was minting activity at many other sites, some of which may be indicated by the finds of Stater flans discussed above and shown in red in Figure 4.10. There has been little excavation of major LIA sites in East Anglia and I expect there to be future finds of pellet mould debris from such sites. The finds of pellet moulds at Fison Way, Thetford were on a site thought to be used for ritual or ceremonial purposes (6.6.2), which has been taken to imply that minting may have had ritual associations. There is no context for the finds from Saham Toney and no suggestion that Needham was other than a settlement site.

#### **4.7.2 Findings from the die-study**

In this section I will draw together, and comment upon, my key findings regarding the organisation of minting in Chapters 2 and 3.

In order to make sense of the coinage I have found it effective to make a fundamental division between the early local and denominational coinages. In the early local coinages there were no stylistic links between gold and silver, and there was much minting on a local basis for local usage. The denominational periods saw gold and silver

Chapter 4. Production: the evidence from metallurgy, weight accuracy, minting and production volume as separate parts of a single Issue and there was a growth of larger mints, each producing coinage with a wide circulation within East Anglia. The start of denominational coinage appears to represent a fundamental change which seems to be related to other events in Icenian society. Nonetheless I am concerned that my division between early local and denominational periods risks over-simplifying the position.

In the early local period, the minting of silver coinage often involved only a few dies and a small area of circulation. These were probably struck at a low output per die by itinerant moneyers. However, in parallel, larger organisationally complex types such as Bury A and Bury B were being minted. The position was not so dissimilar in the denominational periods; most production was from three main mints, but in parallel there continued to be a reduced number of smaller local coinages, Mint A being the largest mint of the denominational periods. Although the evidence is somewhat tenuous I strongly suspect that it was also a major force in the early local period. In 2.5.5 I have shown that the early local period Bury Pallas Half Units die-link to Snettisham, the first denominational Issue, and I have speculated that these Half Units form a denominational grouping with Bury A and probably a later early local period Unit. In this scenario, which I think likely, Mint A was in operation for the whole period of Icenian coinage production. I suspect that Mint C, which produced that Saham Toney Issue in the first denominational period, also had its origins in the early local period, probably minting LFA (see 3.6 and 3.6.1).

If the operation of mints was continuous in this way, the major numismatic event at the end of the early local period was the cessation of the British J gold coinage and its replacement by the denominational gold coinage of Mint A. That this was not a natural evolution is suggested by the extreme debasement of the final JB issues, the hoarding horizon that accompanied the change and the much finer gold issued by Mint A.

In the early local period the types struck in large volume, such as the JB Stater and Bury B, often appear to have been struck in different locations using similar, but unlinked, dies. There were a few types that show signs of having been issued as a matter of urgency, such as die-group 1 of the JA Stater and die-group 2 of Bury A, but most production appears to have been produced in an orderly way.

Most of the coinage of the denominational periods was produced by three mints. Their scale of operations and geographic coverage is summarised in 3.2 and discussed in more detail later in that chapter. They appear to have exercised strict control over weight, alloy mix and imagery, yet each produced from a number of sites within the region without seeming to have an exclusive area of sub-regional focus. The largest of them, Mint A, produced the Anted and Ecen Issues in parallel and may also have produced earlier Issues in parallel. Alongside the output of these mints there continued to be small local production of types such as EsvPrasto and Cani Dvro, although to a lesser extent than during the early local period.

#### **4.7.3 Summary**

It appears from the die-study and related distribution data that throughout the period of Icenian coinage production minting was widely dispersed. Archaeological evidence of mint sites is very limited. At all stages small-scale production took place alongside large scale minting. The larger issues were often produced from different sites using common iconography, alloy mixes and weight. None of the minting activities appeared to have areas of geographic exclusivity, and areas of distribution overlapped.

There were some uniform aspects of coinage. Weights and metal content were generally standard at any given point in time with a few limited exceptions such as Ale Sca. The same denominations were used throughout the entire period. Despite these elements of uniformity, the only example of a symbol or inscription being applied to all

East Anglian Issues at the same time is the introduction of facing crescents, at the start of the mid-denominational period. These were subsequently excluded from the final Issue of Mint B.

Models of organisation which may be appropriate to these findings are discussed in Chapter 7.

#### **4.8 Plated coinage**

The die-study included consideration of plated coinage. This was essential in order to correctly identify official dies, but also important as I believe plated coinage is an indicator of official coinage having transactional value. An excellent study of LIA plated coins by Cottam convincingly concluded that they were counterfeit money (2001). He showed that plated dies were cruder than those which struck solid coins, that the foil used is often of a different colour to solid coins and that careful examination of plated coins, which initially appear to be from official dies, have tell-tale signs of hubbing. Cottam's analysis applies to Icenian coinage and is in accordance with my own findings.

There are plated examples of Icenian coins from every period of coinage, for all denominations and for most major types, some of which are illustrated in Appendix I. The ten thousand Icenian coins in the database include 344 which were originally plated. Most were struck with specially made dies, of which 348 different examples are recorded, but there are also many examples of plated coins struck from what appear to be hubbed copies of official dies.

The forgery of Icenian coinage was present from the beginning of production but grew significantly during the final periods of production. This is illustrated in Table 4.28 which shows the ratio of false to official dies for each denomination over the four periods, expressed as a percentage of official dies.

<b>Denom/Period</b>	<b>Early local</b>	<b>First denom.</b>	<b>Mid-denom.</b>	<b>Late denom.</b>
Stater	26%	7%	67%	71%
Quarter Stater	0	7%	31%	N/A
Unit	14%	4%	20%	45%
Half Unit	0	10%	29%	46%

Table 4.28. False dies as a percentage of official dies

The statistics for the early local period are somewhat distorted by the Hunstanton B hoard which is discussed in 6.4.3 and which included many plated JB Staters and LFC Units. The plated Staters from this hoard are unusual in being produced with a silver appearance, thus it is possible that they were not designed for purposes of deception, at least not in a temporal sphere. There are also limited amounts of more typical plated coinage in this period, including two plated JA Staters and nine plated Bury A Units.

#### **4.9 Summary**

The following section summarises the main findings of the review of the production of the coinage focussing in particular on aspects which may provide clues as to how it was used. This thesis has shown that, with the exception of Quarter Staters in the final period, all four denominations were used in each period of coinage. The tables of dies clearly illustrate the decline in the minting of gold over the period of production and provide a basis for further analysis of the coinage (Table 4.1 and Table 4.2).

I have shown that from the beginning, silver and gold coinage was produced with strict control over weight. Almost 60% of samples from die-group 1 of the JA, the first Icenian Stater, were within a tenth of a gram weight range centred on 6.17g. With the exception of the JB Stater, all subsequent gold coinages were produced with strict control over weight. Stater weight was gradually reduced but, except for the JB Stater, this was also tightly controlled. Reductions took place at the change from one type to another or in

the exceptional case of the JA Stater between die-groups, not during the course of production (4.3.1).

The degree of weight control over silver coinage is harder to assess as sample sizes are small and coins suffer damage in the soil. However, examples of the early Unit Bury A reveal a well-controlled target weight of between 1.4 and 1.44g. For the late Units there are many examples in excellent condition from hoards; these show remarkable weight control with 77% of the 314 samples of LFH Units from die-group 19 falling within a weight range of 0.1g around a target weight of 1.24g (4.3.2).

The analysis of the weight of the different denominations has shown that there was a fixed relationship between the weights of Staters and Quarter Staters and between Units and Half Units (4.3.3–5).

Considerable importance was attached to the control of metal content within the coinage. This is clearly demonstrated for gold coinage, the results of the many metal tests showing generally low standard deviations, particularly for gold content. The exception is again the JB Staters where the two later die-groups tested showed much greater variation in their results (Table 4.17). The test results for silver and copper in the gold coinage show greater variations; this is related to the measurement problems for these elements when mixed in an alloy. The earliest coinage had a similar gold content to the GB E Stater at 55% but this soon dropped and for the denominational coinages stayed between 34% and 39%. The coinage started with a high silver content and low copper and this gradually reversed (4.4.1).

The earliest silver coinage was produced with high bullion content, averaging some 97% silver, and remained high until the mid-denominational period, when most tests were still above 90%. Thereafter there was debasement of the silver by the addition of copper and it seems probable that the later coinages were about 50% bullion (4.4.2). It has not proved possible to obtain accurate results for the metallurgy of the debased silver

coinage due to the separation of silver and copper into separate phases when mixed in an alloy.

The review of metal content has given a few clues as to the source of the precious metals which may have helped to elucidate contemporary trading relationships. The silver for the early silver coinage may well have been Roman Republican Denarii with added copper. The earliest JA Stater tested has the same mix of major elements as GB E Staters, but it appears to have more tin than the Gallo-Belgic coins. Only one JA Stater from die-group 1 has been tested, but the result raises doubts about whether re-cycled GB E Staters provided the metal for the first East Anglian gold coinage.

I have attempted to establish if there was a standard relationship between either contemporaneous types of Staters and Units in the early local period or between those of the same Issue for later coinage. The results show that there was a clear relationship between the weight of a Stater and that of a Unit, except for later JB Staters. I was unable to find evidence of a stable relationship between the precious metal content of gold and silver coinage, and there was definitely no such relationship during the production of the JB Stater and the later debased silver coinages (4.5).

An indicative assessment of the precious metal needed for the entire coinage is 2200 kilograms of gold and 11,300 kilograms of silver, some of which would have come from metal being recycled from earlier to later types. These calculations are based upon broad estimates of coinage production per die, as well as the other data gained from the study. The usage of gold declined significantly during the mid- and later denominational coinage and although silver use grew, it did not replace the value of the absent gold. The 'value' of coinage production appears to have suffered a significant decline in these latter periods, irrespective of uncertainties about the relative duration of each the four periods into which production is divided (4.6).

In the early local period much minting was dispersed and often local in distribution but there were a number of larger issues which may have been minted from multiple sites but which clearly had common standards of weight, metal content and design. Denominational minting was often widely dispersed, yet was tightly controlled by a limited number of mints that appeared to operate in parallel. At the same time there continued to be other small local productions of coinage (5.7 and 5.8). It appears likely that two of the mints of the denominational periods were also operating in the early local period.

Plated coinage was produced in all periods and for all denominations but there was major growth in the prevalence of plated coinage in the final two periods of production.

In summary I have found Icenian coinage to have been produced with strict control over weight. Although harder to prove, I think that metallurgy was also very important. Thus it was consistently viewed as being important for each coin of any particular type, or sub-type, to contain a defined mass of the appropriate precious metal or metals. There does not appear to have been any form of monopolistic control over minting activity, yet the coinage produced was standardised in terms of denominations, weight and to some extent metal content, as if these criteria were centrally controlled. Larger issues of particular types of coinage frequently appear to have been minted at more than one location.



## Chapter 5 Art, Imagery and Inscriptions

### 5.1 Introduction

The first coinage produced in East Anglia represented a massive burst of creativity. Imagery was produced which was not only beautiful, but which also contained ‘hidden’ elements not immediately apparent. With time the nature of the imagery changed and other aspects became important, such as consistency from die to die and repetition of specific symbols and words.

This chapter explores what can be learned from this imagery and its possible social and cultural implications. The die-study and the detailed photographic records of over 1600 dies, many of which are chronological sequences, provide a unique opportunity to study the imagery. It is possible that Icenian coins had symbolic or artistic importance in their own right. This could be an alternative to other roles of the coinage or an addition to them. Irrespective of whether it was art, as we perceive it in a contemporary sense, the imagery on the coins is likely to contain clues about the purpose of the coinage and whether this changed with time. To extract this information requires consideration of issues of style and stylistic change.

I have used the results of the die-study as a basis for a high level objective analysis of how the numismatic imagery developed and changed. It was noted during the die-study that the coinage fell into three main stylistic groupings:

- The early gold, JA and JB Staters and the JA Quarter Stater, with Gallo-Belgic styled obverses, and reverses which appear to depict a narrative.
- The early silver coinage with its variable imagery, which was often produced sub-regionally and is related to other forms of LIA art.
- The denominational coinages with stable imagery and stylistic links between denominations.

I start the chapter with a brief discussion about why the approach that I have adopted in studying Icenian numismatic imagery is different from that taken in some studies of LIA art. I then examine the early gold, which has little in common with other Icenian coinage. This is followed by a review of the key components of imagery for the rest of the coinage. These are addressed in an approximation of chronology, but are not divided strictly between periods of coinage, as many types of image are common to all periods. Firstly I consider heads and faces, and then the horse. These reviews concentrate on the more artistically creative and variable coinage of the early local period, but also address relevant imagery on denominational coinages. Two aspects of imagery from the early local period are then examined: symbols and Gallo-Belgic influences on the two largest issues of early Half Units.

In sections 5.5 to 5.7 I concentrate on imagery which is mainly relevant to the later periods. I look briefly at the use of imagery to define denominational groupings followed by a more in-depth examination of the back-to-back crescents symbol. Also discussed is the pellet-triangle motif and images of the boar. I address briefly the impact of Augustan imagery in East Anglia before giving an overview of the impact of inscriptions on Icenian coinage and the clues that these provide about who minted the coinage.

The final sections of the chapter look at imagery in a more macro sense. I start with an examination of a number of examples that I have identified of close relationships between Icenian and other regional coinages. I then consider whether it is possible to illustrate objectively my general observations about how the use of imagery differed between the early local and the denominational periods. This includes an examination of the use of main forms of obverse imagery and the extent to which these follow a chronological or alternative pattern. Finally there is a summary of overall observations on the study of Icenian numismatic imagery and their impact on conclusions about the likely purpose of the coinage.

## 5.2 Icenian numismatic imagery

Many studies have assumed that LIA numismatic imagery follows a pattern of degeneration or debasement until Roman ideas are copied and the art flourishes; I think that this is wrong. These ideas flow back to the ideas of John Evans and a hugely influential article which laid the foundations for subsequent studies of ‘Celtic’ coinage by identifying the Macedonian Stater as the prototype for the British coinage (1850: 127). The problems arise from a diagram he produced, which purports to illustrate how it was possible to date British coinage by an assessment of the extent to which imagery had been simplified, relative to the prototype. It is doubtful whether any LIA British coinage truly conforms to Evans theory of degeneration. The Durotrigan coinage is usually given as an example of degeneration but this is heavily reliant upon the late cast bronzes being put into an assumed chronological order on the basis of perceived simplification of imagery, and then being used as a striking example of chronological ‘descent’ (see for example Creighton 2000: 34, fig. 2.4).

Early Icenian coinages have considerable variation between dies within a type, mainly in respect of the detail around the main image, but these changes do not follow any steady pattern of simplification. Most Icenian numismatic imagery was remarkably consistent within a type, and if anything there seems to have been a strong preference to avoid change. The chronological sequences of mid- and later Icenian coinage do not show the widespread die to die variation that one would expect to see if the imagery was degenerating or influenced by a concept such as serial imagery (Eco 1990; Creighton 2000: 35–7). Major stylistic changes do occur in these periods but these usually coincide with a new Issue of coinage or the final dies of the old Issue. Change is sudden and not gradual.

### 5.3 The early gold coinages

In this section I deal with obverse imagery first followed by the reverse and a brief summary of my observations.

#### 5.3.1 Obverses of JA and JB Staters

The obverse imagery of these Staters is similar to that of other very early British Staters and is derived from Gallo-Belgic coinage. The relationship between the right-facing abstracted head on the JA Stater and the less abstracted ancestor Gallo-Belgic A (GB A) can be seen in Figure 5.1 (the latter is reversed for easier comparison).



Figure 5.1. Comparison between GB A (left) and JA Stater obverses (right)

The wreath, the bar through the hair and the drawing of the hair to the left of the wreath are similar. The face has become more abstracted; the three large curls to the right of the wreath on the GB A form a major part of the JA face, the upper curl seeming to represent the eye and the central curl possibly the ear. To the extreme right of the JA can be seen a rudimentary nose and lips. Below the head on the GB A is an arrangement of lines and pellets which represents a cloak; these details are also present on most JA dies but are surmounted by the fibula discussed below.

The obverse of the GB A is derived from the coinage of Phillip II of Macedon (359–336 BC) as identified by Evans (1850). The derivation of the JA obverse from GB A is probably via Gallo-Belgic C ('GB C') as illustrated in Figure 5.2.



Figure 5.2. Two GB C dies from Sills (2003: fig. 75) and JA die M (right)

At the top of the cloak on GB C is what appears to be a fibula. In the JA and JB coinages this device evolves, becoming more elaborate and unlike known examples of British fibulae. The most complex example is shown in Figure 5.1 and has a resonance with decorative ironwork of the period (see Jope 2000: pl. 310, figs b, c). Below the fibula on JB die D is an ornate, seashell-like, design so far only seen on that die (Figure 5.3).



Figure 5.3. Shell or floral-like device below fibula

JA die A, possibly the first obverse die, differs from other obverses in that it is left-facing and crude in execution, the 'fibula' is missing and the treatment of the base of the hair bar is different. This die is close in style to the insular form of GB C, which Sills believes to have been struck in Britain and is possibly the earliest regular British gold coinage (2003: 261–7). These similarities suggest that the two types may have been close contemporaries. The GB C is shown reversed in Figure 5.4 to facilitate comparison.



Figure 5.4. Comparison between Insular GB C (left) and JA die A (x2)

### 5.3.2 The reverses of early Icenian gold

These show an animal, usually identified as a wolf, with open jaws baring its teeth. I follow Chadburn (2006: 313) in calling it a wolf but, as she suggested, it could be a large hunting dog.



Figure 5.5. The 'Norfolk' wolf

The use of a wolf or dog is uncommon. Sleeker dog-like creatures appear on a number of the North Thames silver coins of Cunobelin (for example ABC 2846). The only British LIA coin bearing an animal in a similar posture is a Corieltavian Unit (ABC 1788), an example of which was allegedly found with the Hunstanton II hoard (6.4.3). The Corieltavian Unit is likely to be broadly contemporary with the JA and JB Staters, with which it shares a crescent close to the wolf's mouth (Figure 5.6).



Figure 5.6. The Corieltavian wolf (ABC 1788)

Above the Icenian wolf are a crescent and a number of large pellets, perhaps intending to give the impression of a night sky. On the JA Stater above the wolf to the right is a large irregular shape which forms a bird's body. This is connected to two of the pellets, which form feet, and to a third pellet above the crescent which forms the bird's head; this pellet is given a beak and a crest as shown on the left of Figure 5.7. Early dies look less bird-like and are closer to what may have been the starting point for the design, the arms of the horse-rider on GB E Staters.



Figure 5.7. From left: the upper bird on JA die 22 and rear birds from JA and JB

On the rear of the wolf on both types of Stater is another bird, two examples of which are shown on the right in Figure 5.7. Kretz (1999) made a plausible case for identifying the upper bird as a Lapwing (*Vanellus vanellus*), which is common in East Anglia. This bird originally inhabited coast and grasslands but adapted well to traditional farming techniques. The bird on the back of the wolf may be a representation of a wader or a member of the heron family. It may be related to a bird sitting on the back of a horse on continental LIA coinage (for example DT 146).

In front of the wolf's mouth on the JA Stater is a shape like a solid square with a corner missing, the crescent within its jaws possibly representing a tongue or a crescent moon. Before the head and behind the tail is an almond-shaped ring with an elongated central pellet; these are also seen on GB E Staters.

### **5.3.3 Summary**

Consistency in obverse imagery appears to have been important and there is no sign of change or simplification. Most of the key elements of the reverse design are also present on all dies, such as the standing wolf with a crescent above and a bird on its back. The crescent close to the wolf's mouth and the upper bird both seem to disappear in the later dies of JB. There are local sub-types of JB with additional decoration and detail, but the key elements remain constant.

Daphne Nash Briggs (2010) sees the scenes on the reverse of these East Anglian Staters and on some continental coinages as being likely to represent a myth associated with lunar or solar eclipse. Her theory relies heavily upon Norse mythology recorded in medieval times. Nash Briggs' interpretation certainly fits with the 'astral' imagery above the wolf and it is possible that the crescent, seen close to the mouth of the wolf on JA and JB Staters, represents a moon about to be devoured. The crescent in front of the wolf was certainly initially seen as important, as it remained part of the simplified imagery of the Quarter Stater. Whether or not Nash Briggs' interpretation is correct, the consistency and complexity of imagery on these reverse dies gives the impression of a deliberate attempt at the illustration of a narrative.

## **5.4 The early local silver coinages**

In this section I examine the key design elements of the early silver coinage: the head and the horse. In both cases the main focus is on coinage of the early local period, but I also

refer to the use of these elements in later coinages. I also discuss other design elements that are important in the early local period and the strong links between the imagery of early Half Units and some Gallo-Belgic silver.

#### 5.4.1 The head or face on silver coinage

The head is the dominant motif on the obverses of the early local and the first denominational silver coinages. With somewhat different attributes it re-appeared in the later LFH series of Units. Heads or faces are also often hidden on both obverses and reverses and on gold and silver coinage. Firstly I discuss the clearly displayed obverse heads followed by a discussion about hidden imagery.

Heads on the obverses of silver coinage are usually shown in profile and are not abstracted, like those seen on the early Staters. Nonetheless, they are stylised and do not appear to depict a particular individual (see Figure 5.8).



Figure 5.8. Heads on Icenian obverses. A – Bury Face Horse Half Unit, B – Bury A, C – Bury C, D – LFA, E – Bury D, F – Bury B, G – Snettisham Unit, H – Irstead Unit, I and J – Saham Toney Units, K – LFH.

A number of general observations can be made about the heads other than LFH:

- Generally there is a lack of facial hair; exceptions include the moustache on the facing head (A), and beards in various forms on Bury D (E), Saham Toney (I) and some LFC dies which can be seen in I.13.

- Most eyes are relatively large and appear to be intended to represent a living being, possible exceptions are LFA (D) and Bury D (E).
- The Bury Face Horse Half Unit (A) is unique in showing a frontal view of a moustachioed face as the main element of the obverse design. The face is clearly human but to the upper-left of the face there is extra detail which may represent a horn or an animal-like ear.
- The heads shown in profile usually reveal the neck and often part of the shoulders. The intention is to portray an intact head *in situ* on a body.

The LFH head (K) is different; it is not bearded and most dies groups are entirely composed of dies showing heads either with a moustache or clean-shaven. None of the 83 obverse dies show the head having a neck or shoulders. The base of the head is always represented by a horizontal concave line stretching from the chin to the back of the head. The eyes are small and do not give the appearance of life. I believe it likely that the head on this large issue represents a detached trophy-head or a mask.

Bury A is one of the earliest Icenian heads and is almost identical to that on a South Thames Quarter Stater (ABC 551). Both of these are similar to some Gallo-Belgic Units attributed to the Ambiani; examples of all three are shown in Figure 5.9. The two British heads are probably the work of the same die-cutter, implying that either dies or die-cutters travelled between regions in the early years of silver coinage production. The stylistic links to the continental Unit are also strong, probably indicating that earliest die-cutters of Icenian coinage were of Gallic origin.



Figure 5.9. From left: Bury A die K, South Thames Quarter and Ambiani Unit DT 351

The helmeted head of Bury C, probably contemporary with Bury A, appears to be based on the helmeted head of Roma on Roman Republican Denarii. The lower part of the helmet has been altered to a diadem. Bury B appears to be a further stage in the adaption of the same image to a local aesthetic. It still retains the shape of the helmet and the detail to its rear. The process of this transformation is illustrated in Figure 5.10. On the left is a Republican Denarius of L. Minucius (133 BC) found on an Iron Age site in East Anglia (Crawford 1974: 248-1). The adaption of the image was not a continuous process. All Bury C dies are broadly similar and all Bury B dies use the ‘new’ adapted form.



Figure 5.10. From left: Republican Denarius, Bury C and Bury B

The transformation shown in Figure 5.10 is illuminating:

- Any risk of the image being an identifiable portrait is eliminated.
- ‘Local’ features such as the diadem and locks of hair are introduced in two stages.
- The final image is adapted by depth of die-cutting and adding the lock of hair before the eye for the Chimirri-Russell effect (see below).
- On Bury B hollow stars are introduced. These are discussed in 5.4.3.
- The Roman obverse is itself derived from images on Greek coinage, but the helmet detail shows the Roman coin to be the immediate prototype.

There are many hidden faces on Icenian coinage. Some of these are easy to see and are similar to those seen in other LIA art, as shown in Figure 5.11. The Bury Butterfly Half Unit closely echoes some of the hidden faces seen on the Battersea Shield, illustrated alongside it (from Stead 1996: pl. 82). The many faces in the Half Unit can be seen by focussing on any of the four pairs of rings. The large outer ring and pellets are best seen as a hidden face by inverting the image.



Figure 5.11. Hidden faces on Bury Butterfly Half Unit and the Battersea Shield

Other faces are less straightforward, but can be detected by rotating a good example of a coin in the hand. The examples from Bury D, shown in Figure 5.12, make use of the large circular design above the horse as a mouth, the rings either side of the forelegs as eyes and the body of the horse as a combined nose and moustache.



Figure 5.12. Hidden faces on Bury D reverse dies

The horse is also used to hide faces on many other types, two of which are shown in Figure 5.13. The image on the left is a Snettisham Stater (die 9) and the central coin a LFA Unit (die 19). In both cases a left-facing profile is created by using the body and neck of the horse as a nose, its head as lips and a ring and pellet as an eye. However, there are more faces hidden in each image. Another example can be seen on the right; this shows LFA die 19 with the horse's body used as a nose again, but this time inverted. Yet another face is seen if this image is rotated through 180 degrees.



Figure 5.13. Hidden faces on the reverses of a Snettisham Stater and an LFA Unit

Similar effects can be seen on many types including Bury A, Bury C, Bury E, Bury D, Bury B, Bury Half Units, LFC, Snettisham Unit, Snettisham Quarter Stater, Plouviez Unit, Irstead Unit, EBH Unit, Saham Toney Unit, BHB Stater, BHB(A) Unit and the BHC Unit. The effect is less clear, but detectable, on Anted, Ecen and Ece Units.

Faces hidden within horses are not exclusive to East Anglia and similar effects can be seen on other coinages such as those of Dubnovellaunus in Kent (e.g. ABC 321), South Coast silver (e.g. ABC 671 and 791), some Corieltavian silver (e.g. ABC 1794), some Dobunnic coinage (e.g. ABC 2018) and North Thames types (e.g. ABC 2303). Other animals have also been used, such as the dog-like creature on ABC 2846 which is a rare example of the effect on the coinage of Cunobelin. A comprehensive analysis of British LIA coinage has not been undertaken, but it appears from an examination of Cottam (2010) that the use of hidden faces was more widespread in the Icenian region, than in other British coinage producing areas.

Examples of similar effects can also be seen on continental LIA coinage such as the bronze Units of the Meldi (DT 576 and 577) illustrated in Figure 5.14, and attributed to the period c. 60 BC to 30/25 BC.



Figure 5.14. Coinage of the Meldi showing hidden faces

A more obvious face appears above the horse on the Irstead Quarter Stater of the first denominational period (Figure 5.15).



Figure 5.15. Not so hidden face on Irstead Quarter Stater die 6

Geraldine Chimirri-Russell discovered that certain Gallo-Belgic coins with a profile head create realistic, almost three-dimensional images, when rotated and viewed obliquely (2003). The true purpose of certain symbols in front of the face becomes apparent as they form elements of the new image, invariably including a second eye. In order to create this effect the curvature of the die, and differential depth of die-cutting, were used to ensure an alignment of nose, lips and chin on rotation.

I have identified excellent examples of this effect on a number of Icenian Units from the early local period. It is perhaps seen at its most impressive on Bury B and the

rare Bury F. The effects of light which help to create the face are best seen in the hand, and are hard to capture in a photograph, but an attempt has been made in Figure 5.16.



Figure 5.16. The Chimirri-Russell effect. From left: Bury F die A and Bury B die B

Design elements such as the ‘beard’, the line from the mouth of Bury F and the placing of the hollow stars before the Bury B, give a three-dimensional structure to the image when it is rotated. Other Icenian coins incorporating the Chimirri-Russell effect include many of the dies of LFA and LFC. In a rotated LFA, the new nose is formed by the space between the original nose and the scroll before the face and the new mouth is either a large pellet or a large pelleted ring before the original chin. The LFA dies illustrated in Figure 5.17, show convincing hidden images when rotated in the hand, but I have found them almost impossible to replicate photographically.



Figure 5.17. Chimirri Russell effect on LFA (left) and LFC (right)

Other writers have commented upon the importance of faces on LIA coinage. A study of hidden faces on continental Celtic coinage by Brigitte Fischer (2009) found examples in a range of coinages from both eastern and western Europe. These range from an early imitation of a Macedonian Stater to a Stater of the Coriosolites. Fischer's images were all hidden on the obverse of the coins and are usually created by differential scale. They can be seen by rotating the coin or by close examination of a section of the image, such as an ear in one example (Fischer 2009: 101, fig. 4). She found not only hidden human faces but also many animals including dogs (or wolves), cows, horses and a cockerel.

I have not found Fischer's type of image within the designs of Icenian coins. It seems that the key focus on the obverses of the early Icenian silver was the Chimirri-Russell effect and for the reverses, was the use of the horse's body to create a human or somewhat demonic face.

The hidden imagery on the early Icenian silver coinage was so common that it may well have been the driver for much of the detail seen on the coins. For instance, on seeing a scroll before a face on an early Icenian coin, I now automatically rotate the coin to search for the three-dimensional image. Although Derek Allen warned that the desire to look beneath the surface of Celtic coin types makes 'a happy hunting ground for the crankish interpreter in pursuit of devious religious symbolism' (1980: 148), hidden faces have long been considered an important element of Celtic Art.

Similar effects to those seen on Icenian coins have been recognised on numerous artefacts. Jacobsthal writing about Celtic art described 'things having floating contours and pass into other things' as part of his 'Cheshire style' named with an allusion to Alice in Wonderland (1941: 308). Megaw, in his 1970 paper, illustrated hidden faces on many artefacts, some of which were British, in what he called the La Tène Disney style, comparing the faces to those of Mickey Mouse. His British examples included the two

illustrated in Figure 5.18 (Megaw 1989: 222, 230). The casket-mount illustrated is probably from the post-conquest period, but it is evocative of faces seen on Icenian coins, such as those in Figure 5.12.



Figure 5.18. First century East Anglian harness-mount and Humberside casket-mount

Other East Anglian examples include the hidden faces on the Snettisham Torcs (for example Jope 2000: pls 113a–b) and many recently recorded on horse harness metalwork by Jennifer Foster (2014). Whilst there has to be a subjective element to the interpretation of many of these semi-abstract images, their incorporation into both coinage and other LIA artefacts confirms that LIA numismatic imagery is not fundamentally different to other forms of LIA art, and should not be treated as a subject apart.

The head and the horse are the two of the obvious dominant themes of early Icenian numismatic imagery. When hidden imagery is taken into account the face becomes the overwhelming feature of the early silver coinages, yet the face never appears to be personalised. It is not a portrait.

Perhaps a clue to its importance is given in the work of Gell (1998). He discusses at length the importance of eye contact with the idol in much idol worship. In Icenian coinage the hidden faces usually emphasise the eyes and the mouth and Gell points out that idols frequently have particular attention paid to the eyes. He suggests that this is because they are perceived as the route to the most important element of the idol, which is ‘the mind immured within it’ (Gell 1998: 136). Gell provides an interesting example of

hidden faces in traditional Marquesan art where a figure (the 'etua' motif) is transformed to a face with elongated nose and nostrils and prominent eyes, which can also be inverted and read as a different face (Gell 1998: 188, fig. 8.13/1). These transformations are evocative of the creation of faces in Icenian art.

#### **5.4.2 The Horse**

The horse is the ubiquitous image throughout LIA coinage on both sides of the channel. Icenian coinage is unusual in having a wolf replacing the horse on its earliest gold types, but all other types throughout the coinage had a horse on the reverse.

I noted during the die-study that heavily worn or damaged obverse dies are common, but it was unusual to find similar damage on the reverse die which bears the horse (or wolf). Whilst this may be due to the shorter lives of reverse dies, which take more stress on being struck, I suspect that it is more likely to have been because of the importance attached to the reverse image. This may be related to a feature of the coinages of hierarchical non-Celtic societies such as Rome, where I understand that it is rare to find obverses bearing the rulers head being struck from badly flawed dies.

The importance of the horse is also suggested by its use as a vehicle for the depiction of human faces, which is discussed in 5.4.1. This may be related to the androcephalous horses seen on Armorican coinage, such as the Quarter Stater of the Veneti (DT 2123) illustrated to the left of Figure 5.19. Similar ideas may be being conveyed by the human legged horse on the LIA Aylesford Bucket and on the reverse of Bury G (centre and right respectively of Figure 5.19).



Figure 5.19. Combinations of horse and features

The horses on Icenian coinage appear to show three stages of development. Those depicted on the reverse of the earliest coins, Bury A and C, are technically well produced and naturalistic, displaying considerable energy, but there is little instantly recognisable as Icenian about them. The next types become more distinctive and identifiably Icenian, particularly in the surrounding detail. This is shown on Figure 5.20, the early Bury A is on the left and the later and more decorative Bury B on the right. Bury B has both a more complex field and additional detail such as reins and a more elaborate tail. These horses frequently show what appears to be flame emerging from their mouths (see C in Figure 5.21 and Figure 2.18).



Figure 5.20. Bury A (left) and the more decorative Bury B (right)

As the coinage develops the horse becomes more stylised and less naturalistic, particularly in the drawing of the horse's head, which differs from those used in other regions. A selection of horses covering all phases of East Anglian coinage is shown in Figure 5.21. A is from the first phase, B–E are from the second phase and F–J illustrates the more stylised third and final phase of development.

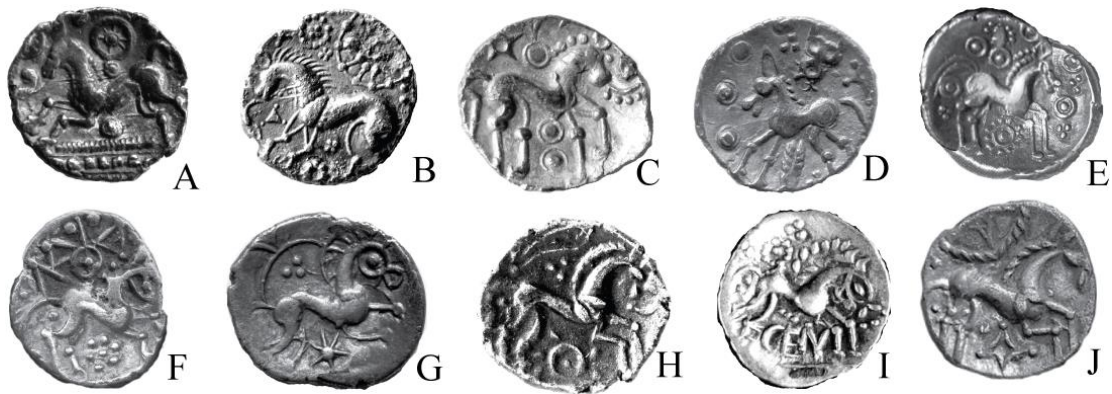


Figure 5.21. Examples of Icenian horses. A – Bury C, B – Bury F, C – LFA, D – LFB, E – Snettisham Stater, F – EBH Unit, G – BHB Unit, H – EPH(A) Unit, I – Ecen Unit and J – LFH Unit.

Like the wolf, the horse is frequently associated with detail possibly representing the sun or stars. Examples can be seen above the horses in Figure 5.20 and Figure 5.21. These potential solar or astral symbols are usually key elements of any transformation of the horse to a hidden face.

The horse on the reverse of British LIA coinage can be traced back to the Celtic imitations of the Stater of Philip II of Macedon, first arriving in volume in Britain with Gallo-Belgic Staters (2.2.1). However the image of the horse which transforms into a human face may indicate an importance beyond simply a continuing tradition, or its use as a signifier of value, although it may have been those too. Once the Iceni adopted the horse, it was used on every reverse die. This is not unique, as the Corieltauvi and the Dobunni show similar allegiance to the horse, but other regional coinages sometimes used different reverse imagery.

The horse on early dies of the LFC Unit is unusually upright and has a branch below it. This appears to be derived from bronze coins of Carthage. This North African coinage is thought to date from the 4<sup>th</sup> century BC, and shows a standing horse in front of a palm tree. An example (Alexandropoulos 2000: number 18) is shown to the right in Figure 5.22.



Figure 5.22. LFC reverse (left) with bronze of Carthage

The possible prototype was first identified by W. Bragg (pers. comm.) and subsequently the two Carthaginian bronzes illustrated below were found in the Ken Hill deposits at Snettisham (6.2.1).



Figure 5.23. Carthaginian bronzes from Snettisham

The distribution of LFC seems to be focussed on Breckland (2.5.2). However, it has been found in quantity at Snettisham and was an important element of the Hunstanton II hoard (6.4.3) where many were plated. Of the 118 official and plated LFC Units with a provenance, 65 were found at Snettisham and 21 at the likely ritual site of Fincham in west Norfolk. Perhaps there is a link between this equine imagery and some element of ritual activity at Ken Hill, Snettisham and possibly Fincham.

The horse was of great importance in East Anglia. Natasha Hutcheson found a disproportionately large number of sites generating the recovery of LIA horse equipment from Norfolk and Suffolk (2004: 12–22). Sally Worrell examined Portable Antiquities Scheme finds between 1997 and 2004 and found that the highest quantities of horse equipment and vehicle equipment were found in Norfolk and Suffolk. Also the scale of

such finds, relative to other metalwork, was greater than for most counties. Table 5.1 uses her data (Worrell 2007: 375).

County	Total metalwork excluding coins	Horse and vehicle equipment	Other metalwork Excluding coins	% horse equipment
East Yorkshire	20	10	10	50%
Lincolnshire	155	24	131	15%
Northants	34	9	25	26%
Warwickshire	26	12	14	46%
Norfolk	250	57	193	23%
Suffolk	191	37	154	19%
Essex	37	5	32	13%
Kent	56	6	50	11%
Hampshire	95	8	87	8%

Table 5.1 Finds reported by the PAS between Sept 1997 and April 2003. Data for counties with at least five finds of horse equipment (from Worrell 2007)

### 5.4.3 Other design elements

There are a number of symbols which do not appear to be simply designed to help form hidden faces. Symbols were clearly important on the Bury C Unit, as there are examples of them being amended.



Figure 5.24. Amendments to Bury C die 10

Figure 5.24 shows a solid pellet on an early strike of die 10 being replaced with a ring. The change involved some skill, as the upper part of the horse's foremost rear leg was re-cut to accommodate the ring.



Figure 5.25. Counter-stamps on Bury C dies 7 (left) and 2 (right)

A second example of amendments to Bury C dies is shown in Figure 5.25. A heavy oval mark is super-imposed on existing detail above the horse. On die 7 (above left) the crude oval 'punch' (upper centre of the image) appears to overlay parts of an earlier ring and a ring and pellet. Figure 5.26 shows two states of die 3 demonstrating that this symbol was added after the start of production.



Figure 5.26. Early and later strikes of Bury C die 3 showing counter-punch (right)

Other symbols recur regularly in the coinage, and consistently in relation to particular types. I have used two symbols, a diamond shape (or four-pointed star) and a hollow five-pointed star, to provide an indicative relative chronology for early types of Unit. They have also helped in identifying some rare coins as being East Anglian. These are shown in Figure 5.27.

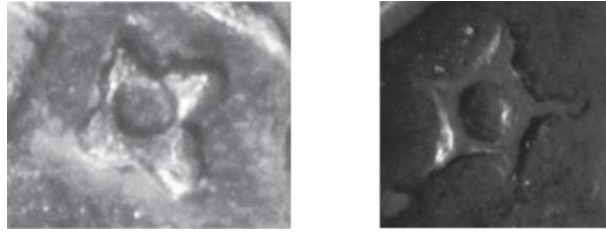


Figure 5.27. Recurring symbols, diamond and hollow five-pointed star

The diamond-shaped symbol was used on early LFA dies up to and including dies D:10, and thereafter replaced by the hollow five-pointed star. The consistent use of one, or both, of these symbols on certain coinages indicates they may have been used to convey information. This is certainly suggested by the sudden move from one symbol to the other on LFA. Whatever the meaning, it was not applicable throughout the region as other types, such as LFC, were minted simultaneously without either symbol.

Another symbol appearing on early Icenian coinage is made up of concentric circles of rings or pellet rings, sometimes rayed and sometimes with a central pellet. These are probably an astral or a solar representation and occur on the reverses of Bury D, Bury B, LFA and possibly LFC and are often associated with hidden faces (see Figure 5.12 and Figure 5.17). Similar, but less extravagant, designs appear on other British LIA coinages including the obverses and reverses of early Corieltavian Boar Horse types (ABC 1779 and 1782).

#### 5.4.4 The imagery on early Half Units

The obverse imagery of the Bury Pallas Half Unit is part of a continuing sequence of abstraction. A predecessor is the obverse of the Gallo-Belgic head of Pallas series (DT 188–94). This was abstracted to form part of the Ambiani '*fonds commun*' (DT 341–8). This sequence, ending in the Bury Pallas Half Unit, is illustrated in Figure 5.28.



Figure 5.28. Prototypes for the Bury Pallas Half Unit (right)

The coin to the left is DT 189 and DT 343 is second from the left. DT 343 is rotated (third from left) to reveal its relationship with the Bury Pallas Half Unit (right). It can be seen that the standard or weapon on the left of the Icenian coin, and the curved branch to its right, were originally the helmet of Pallas. The flag-like design to the top right of the Icenian coin was originally the cloak. The influence of these Gallo-Belgic coins bearing the head of Pallas Athena upon the early development of British coins was originally noted by Derek Allen (1980: 96). The earliest of the Pallas head types are thought in turn to derive from the head of Athena seen on Staters of Alexander III of Macedon. An innovation on the Icenian coin is the addition of a boar which appears to be mounted on a standard (see 5.5).

The Bury Butterfly Half Unit has sweeping symmetrical lines above the boar which contain many hidden faces (see Figure 5.11). The design evokes Gallo-Belgic Units with horses facing each other above a boar (e.g. DT 442 and 443) which I suspect were the starting point for the abstraction of these Icenian images.

### 5.5 The denominational coinages

This section discusses briefly the use of imagery to link different denominations of an Issue, followed by an analysis of the introduction of back-to-back crescents which came to be a key feature of much late Icenian coinage. Finally, there is brief discussion about two other elements of imagery: triple crescents and the boar.

The denominational Issues saw a reducing use of the most complex forms of hidden imagery. Obverses were usually denomination-specific, but the style of reverse imagery was standardised with all denominations of an Issue usually being similar; this is illustrated by the EBH Issue in Figure 5.29, where the similar reverses are seen on the right of each pairing. More detailed discussions about the use of imagery in Issues and mints were included in Chapter 3.



Figure 5.29. From left: EBH denominational Issue, Stater, Unit and Half Unit

After the first few denominational Issues there was a change from the use of the human head to back-to-back crescents as the key obverse motif. The crescents motif can also be seen to include hidden faces and thus they represent a continuation of the ‘Disney’ style of La Tène imagery. Examples are shown in Figure 5.30.

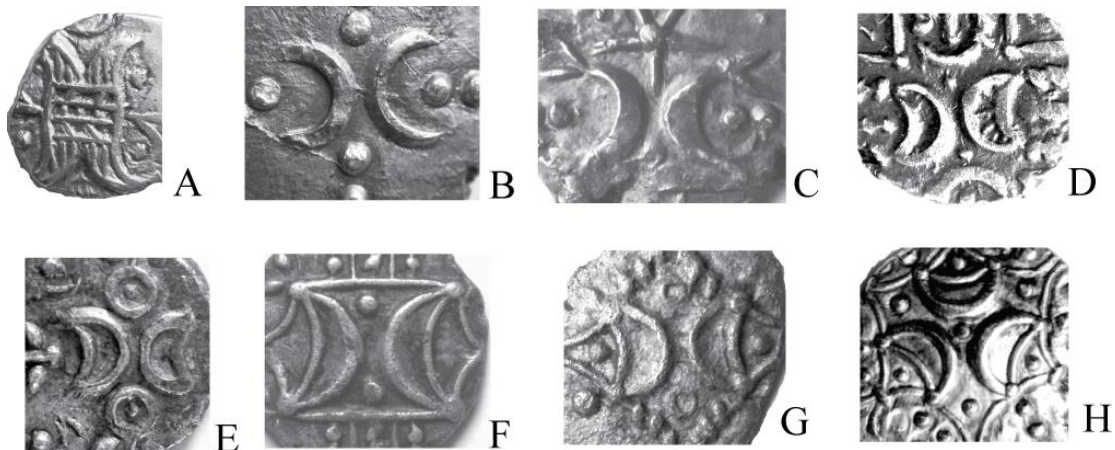


Figure 5.30 Back-to-back crescents. A – Irstead Quarter, B – EBH Stater, C – BHC Stater, D – EPH(A) Unit, E – EPH(B) Unit, F – Anted Unit, G – Anted Half Unit and H – Anted and Ecen Stater.

The back-to-back crescents appear within another pair of crescents on example D (above) and on a few types crescents appear in triplet form, as on the Anted and Ecen Stater (H above) and on a BHB Half Unit.

The earliest appearance of back-to-back crescents was probably on the Irstead Quarter Stater, where the crescents have a central box. Their next appearance, this time more clearly expressed, was either on two very late and rare EBH Stater dies, C and D, from Mint A or on EPH(A) of Mint B. Thereafter they appear on every significant Issue with the exception of LFH.

The back-to-back crescents motif was not exclusive to the Iceni. It appeared on many North Thames types, the earliest of which were Middle Whaddon Chase Staters (ABC 2240, 2442 and 2445). It was also common on the ensuing inscribed coinages of Dubnovellaunus, Addedomarus, Tasciovanus and Andoco, but almost entirely absent from the coinage of Cunobelin (Figure 5.31). Its presence outside North Thames and East Anglia is spasmodic, occurring on occasional coins such as the Kentish Units ABC 246 and 249 and the Western Savernake Stater ABC 2089.



Figure 5.31. North Thames Staters with back-to-back crescents. A – Middle Whaddon Chase ABC 2442, B – Addedomarus ABC 2511, C – Addedomarus ABC 2514, D – Dubnovellaunus ABC 2392 and E – Tasciovanus ABC 2565

Derek Allen assumed that the motif was introduced into East Anglia from the coinage of Tasciovanus or one of his immediate predecessors (1970: 6). His view was widely accepted, leading to suggestions that the adoption of the motif may have been as a result of the political influence from beyond the southern borders of the Icenian area. The

stylistic linkage between Whaddon Chase Staters and early Icenian coinages, such as the Snettisham Stater and Quarter and the Bury A Unit is very strong, and these latter coinages clearly predate the introduction of the motif into East Anglia. Allen was therefore correct in assuming that the motif was first used in North Thames, where it ceased to be used under Cunobelin, whilst in East Anglia it continued and came to dominate almost all coin Issues in a way not seen elsewhere.

The ubiquity of the motif in later Icenian coinage makes its exclusion from the large LFH Issue surprising, particularly since it was used on all three denominations of EPH(A), the Issue which preceded LFH from mint group B. The exclusion of the motif on LFH could be interpreted as implying that it was purely decorative, but I think it more likely to be a deliberate statement of independence from some form of political, or other, grouping.

The pellet-triangle was used widely during the denominational coinage and it appears throughout British Iron coinage (Hobbs 1996: 232) but it is especially common in East Anglia. Figure 5.32 lists in chronological order the major types and Issues and highlights limited occurrence of the motif in light blue, and its intense usage in dark blue.

A fuller explanation of the schematic is given in 5.11.

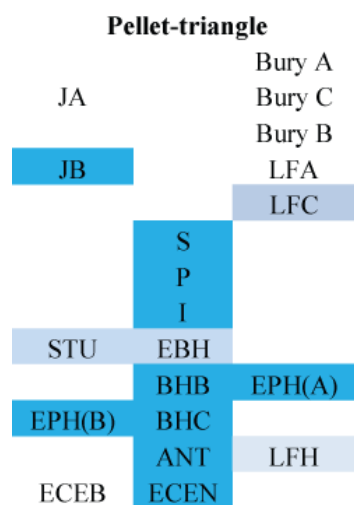


Figure 5.32. Occurrence of pellet-triangle motif

The importance of groups of three in ‘Celtic’ art has often been noted (for example Green 1986: 208) and the pellet-triangle also appears on other objects from the LIA (for East Anglian examples see Davies 2008: 115–6). I suspect that this symbol has no particular significance in relation to Icenian coinage, but it serves to illustrate the stylistic links between coins and other forms of material culture.

The boar first appears as a minor element in Bury Half Units, apparently mounted on a standard as shown on the left in Figure 5.33. The depiction of a boar as part of a standard occurs on Gallo-Belgic coinage, including early potins such as DT 225.



Figure 5.33. Boars on Bury Pallas Half Unit and EBH Unit (right)

The boar first appeared as a major element of Icenian coinage design on EBH Units, and what is probably the first die has an outer line enclosing the hairs on its back (Figure 5.33). This gives the impression of it being the depiction of a sculptural device for the representation of hair, rather than hair itself, implying that the coin may depict a sculpture and not a wild beast. All the boars which occur on Icenian coinage are stylised, and it is possible that they are all intended to depict a standard rather than a wild animal.

Most early Units of the Corieltavi have a boar on the obverse. Whilst these predate the EBH Unit, they do not appear to be its direct prototype as they display a more naturalistic interpretation of the hair on the back of the boar.

### 5.6 Augustan and other ‘realistic’ forms of imagery

The late Icenian coinage was largely immune to the move towards the Greco-Roman style of imagery seen on the later coinages of south-eastern LIA Britain. Figure 5.34 illustrates the different approaches; on the left is a horse and rider from the North Thames coinage of Tasciovanvs. Its classical style contrasts with the more stylised Saham Toney Y-headed horse for which it may have been the inspiration.



Figure 5.34. Tasciovanvs Stater (ABC 2565, left) and Saham Toney Unit die 4 (right)

The avoidance of Greco-Roman forms of representation extended to Augustan imagery. This became popular throughout the Roman Empire and beyond in the decades following the battle of Actium (Zanker 1990). Creighton identified the use of this imagery on many LIA British coins (2000: Chapter 4).

The EsvPrasto Unit is the only Icenian type which clearly adopts a Greco-Roman form of representation. It appears to be modelled on a Unit of Cunobelin (Figure 5.35) and has a star on an obverse die and all reverse dies, which is unlike those seen on other Icenian coins. The star resembles *sidus Iulium*, the comet which became the symbol of Julius Caesar’s deification.



Figure 5.35. EsvPrasto Unit (left) and Cunobelin ABC 2873 (right)

The EsvPrasto Unit is a small local issue from the denominational period. Its adoption of Greco-Roman styled imagery clearly had no significant influence on the major coinages of the region.

### 5.7 Inscriptions

A major change in the late denominational coinage was the widespread introduction of inscriptions. The following table shows a version of each inscription in an indicative chronology, with the earliest coins at the top of the chart. Different names were used in parallel, and also alongside the issue of uninscribed LFH coinage from Mint B. The precise chronology of the ‘late local’ inscribed coinage is unknown, but it is probable that Cani Dvro is the first inscription in the region.

Mint A		Mint C	Late local
			CANI DVRO + ESICO FECIT / SVB ESVPRASTO ALIFF/ (R) SCAVO + ANTEÐI(O?) SIA
ANTEÐI	ECEN	SAENV + AESV then ECE	ECE

Table 5.2. Relative chronology of Icenian Inscriptions

The varieties of each inscription are discussed as part of the description of each inscribed Issue or type in Appendix III.

Much has been written about these inscriptions and there have been recent studies by Daphne Nash Briggs (2011) and Amanda Chadburn (2006: 319–27). Both have attempted the etymology of the words, with Nash Briggs examining potential Germanic as well as Gaulish roots. Not a great deal of the interpretation is definitive, and I believe that I would add little by duplicating the analysis.

The reading of the inscriptions is not always straightforward and the following observations are relevant:

- ANTEÐI or abbreviations thereof are always written with a ‘Tau Gallicum’ rather than a ‘D’ which had a sound probably closer to our S.
- ECEN was corrupted to EDN on several later dies, and on the Half Unit appears as ECE or ECEV.
- The two types, Ece A and Ece B are both inscribed ECE never Ecen.
- SAENV could possibly be read as SAEMV.
- There are multiple actual and possible versions of ALIFF/ (R) SCAVO, the most common version should probably be read as ALI SCA.
- There is an S form between the head and neck of the horse on Ece and Ecen types which is reversed on Anted and Cani Dvro. This could be an additional letter or a representation of reins.

The introduction of writing does not seem to have changed the nature of the coinage. It did not result in simplified imagery, reduced variation between dies nor improved control over factors such as weight or metallurgy. The key questions for the thesis arising from inscriptions is whether they give information about social organisation or the organisation of the production of coinage which could provide clues as to its purpose. It would be immensely helpful if we knew what was represented by the words on the coinage. They may have been:

- Rulers
- Moneyers
- Traders
- Other officials or their titles
- Places
- The names of tribes or sub-groups of tribes
- A mixture of some or all of the above

It is striking that with the possible exception of the R placed above SCAVO on one die there are no obvious references to kingship, but it is dangerous to read too much into this as such references are relatively rare on other coinages. Even Cunobelin's coinage is commonly inscribed simply with an abbreviation of his name and of his mint, Camulodunum.

One of the most important inscriptions is on the EsvPrasto Unit, a small local issue from the final few decades before the conquest. The reverse inscription 'ESICO FECIT' is clear and seemingly unambiguous with the *fecit* in Latin meaning 'made it'. Thus on any straightforward interpretation we have a coin bearing the name of a moneyer, although Williams questioned whether 'Esico' could be a reference to a political authority as 'moneyers are not normally mentioned on Iron Age coins' (2000: 277).

The obverse inscription is 'SVB ESVPRASTO' with *svb* in Latin meaning under and Esvprasto presumably the person or body in authority. The first part of this name ESV is a divine Gaulish name which also formed the first part of many continental personal names identified by Evans (1967: 200). Whether this is such a name or, as Nash Briggs suggests, a chiefly title (2011: 95) with Prasto coming from the Latin *praestes*, is conjectural, but both seem to point to an individual rather than to an organisation.

Other relevant observations are:

- The Esv of Esvprasto is probably related to the Icenian Aesv coinage although not necessarily to the same individual. Eisv also occurs on late coinage of the Dobunni and as Iisvprasv on late coinage of the Corieltauvi.
- Antē appears on the coinage of the Dobunni in association with RICV (and possibly rigv and/or ricov); Antēi in its various forms appears likely to be a personal name, although Nash Briggs speculated that it could also be a title of office.

- The Ece and Ecen inscriptions are often assumed to be an abbreviation of the tribal name (for example Evans 1864: 384). Others have concluded that they are variants on a personal name or an abbreviation thereof (for example Chadburn 2006). Chadburn's arguments include the lack of precedent for a tribal name on British tribal coinage, the initial E replacing the well-attested initial I, the similarity of other contemporary personal names to tribal names or places and the lack of logic in suddenly switching to a tribal name rather than a personal one.
- The first element of Cani Dvro is as close to the possible tribal name Cenimagni, mentioned by Caesar, as Ecen.

On balance I suspect that the coinages which were being minted at the same time and which were inscribed either Ecen or Ece are referring to the same 'name'. A superficially attractive argument is that post-conquest production was required to bear the tribal name. This cannot be so as this thesis reveals that the Ecen coinage was minted in parallel with both Anted and the unscripted LFH coinage (Chapter 3); in addition hoard evidence suggests that Ece A, with its Ece inscription, predates the conquest (6.6.1).

The meaning of the inscriptions can be narrowed a little, as some of the possibilities for the names Ecen, Ece, Aesv. Saenv and Anted can be discarded. In view of the occurrence of the two of these names in other regions, and that this thesis indicates that Aesv, Saenv and Ece are a consecutive sequence, it seems most unlikely that they represent places or organisational units. They are also unlikely to represent a title or position, in view of the succession of different names within the same mint. Thus it appears most likely that the words represent the names of people. These people could be moneyers, but early Anted and Ecen Unit dies look to be cut by the same hand and thus the two moneyers would need to have been using the same die-cutter.

The LFH Issue demonstrates that not every type needed to follow the same rules. Therefore, although it seems likely that most inscribed types carry the name of an individual, it is also possible that Ecen and Ece could represent the name of a sub-regional tribal grouping. Nonetheless, on balance, I believe it most likely that the names represent traders, moneyers or officials such as the leaders of sub-tribal units.

### **5.8 Stylistic links between Icenian and other British LIA coinage**

Earlier in this chapter I discussed links between early Icenian types and Gallo-Belgic coinage. Throughout the thesis other stylistic links have been identified between Icenian coins and types from other British regions. These include:

- The obverse of Bury A and the South Thames Quarter Stater ABC 551 (Figure 5.9).
- The JA and JB Staters and the rare Corieltavian Unit ABC 1788 (see Figure 5.6).
- The reverses of LFB and the North Thames Unit ABC 2276 and to a lesser extent ABC 2380 (discussed below).
- The early reverses of the Snettisham Quarter Stater and the North Thames Quarter Staters ABC 2255 and 2466 (III.3).
- The Snettisham Stater and the North Thames Whaddon Chase Stater (III.1).
- The North Thames Unit of Tasciovanus ABC 2610 and one of the types of Saham Toney obverse (Figure 3.52).
- The EPH(A) Stater and the Biga Stater of Cunobelin ABC 2771 (Figure 3.44).
- The tablet form of inscription on Antedi Sia and various other coinages including North Thames (III.48).

Numerous other examples of stylistic similarities are noted in Chapters 2 and 3 and in Appendices II and III. The Icenian BHB and Corieltavian Boar Horse Units are also similar, although always readily separable.

The reverses of the LFB Unit and the North Thames Unit ABC 2276 are extremely close in style and execution (Figure 5.36). Each has a horse with its body formed of ringed pellets above which is a bucranium. Before each horse is a ring and pellet and below it, a branch. The Icenian Unit is clearly identifiable as such by the hollow star above the horse's tail. The reverses of these two small issues appear to have been produced by the same hand. The most likely explanation is that the dies were produced by the same die engraver or moneyer for different 'clients'. The likelihood of mobile moneyers is suggested by Leins in his thesis about coinage distribution in LIA Britain (2012: 70–2 for example).



Figure 5.36. Similar reverses of LFB (left) and ABC 2276 (right)

A different type of relationship is demonstrated by the much later Ali Sca Unit. This type is not typically Icenian and seems to have a relationship with a South Thames Unit of Verica. Direct or indirect sharing of design occurs in respect of the crescent and pellets of the obverse of South Thames Unit, these are very similar to those occurring above the boar of the Icenian Unit.



Figure 5.37. Unit of Verica ABC 1220 (left) and of Ali Sca (right)

Some similarities seem to be borrowings of stylistic elements from one coinage to another, probably similar to the modern spread of fashion. The Ali Sca example is probably of this type. It is unknown whether such borrowings are the result of craftsmen or moneyers travelling from region to region, and suggesting designs to their clients, or the coinage travelling and being appreciated (Collis wrote about the concept of coinage spreading in this way from one 'system' to another (1971)). It is possible that some such similarities are the result of one coinage deliberately referencing another, but I suspect that this is unlikely in the example discussed above, as both are relatively minor issues.

A second type of stylistic similarity could be as a result of a political imposition or as a sign of political allegiance. It is possible that the back-to-back crescent motif may be an example of this. It became widespread, and may have been first introduced in its final form, at the transition between the EBH and BHB Issues. This coincided with an episode of hoarding which probably indicates political change or pressure and is discussed further in Chapter 7.

Other stylistic links seem to be the result of the same person cutting dies in different regions, particularly for small and very local types, such as those illustrated in Figure 5.36. These suggest the use of mobile moneyers, who accepted local input into the imagery on dies and converted local resources of metal into coinage. It is possible that even a larger Issue, like Saham Toney, could have used a mobile moneyer, as it was probably produced slowly or intermittently. This may provide an explanation for its linkage with the coinage of Tasciovanvs, referred to above.

### **5.9 Overview of stylistic change**

The following two sections examine stylistic change over the whole period of Icenian coinage. The first seeks objective evidence about whether imagery within a type became more stable with time, and whether there was a pattern to any such change. The second

examines the major elements of obverse imagery used on the coinage and how these changed throughout the coinage. The results are summarised in 5.12.

### **5.10 Overview of stylistic change – die variability relative to chronology**

During the die-study I noticed a contrast between the variability of dies for early types and the lack of variation of later dies. This is also reflected in the detailed descriptions in Appendix III where, for types such as the BHC Unit, there are a fixed number of hairs on the boar's back (III.23). This section attempts to verify these observations objectively by analysing all types which were produced in sufficient volume to provide an expectation of stylistic change. I selected a cut-off point which excluded from the analysis all types with fewer than 10 reverse dies. This resulted in a data-set of 16 types of Unit and eight types of Stater with examples from each of the periods of minting defined in Chapter 1. Half Units and Quarter Staters were excluded, as there are only two types of each with more than 10 reverse dies, insufficient to produce a meaningful comparison.

For each type all obverse and reverse dies were carefully examined for variability.

The review considered:

- Changes in the main design element of the die, e.g. head to boar.
- Major changes to the main design, e.g. style of horse or head.
- Significant changes to ancillary imagery, such as pellet rings or scrolls being added or subtracted.
- Very minor changes such as additional single pellets, or small marks, were noted but not included in the quantitative analysis.

There was no change of the main design element for any of the types of Unit examined in the study. In respect of the Staters there was a change in obverse design at the end of both the Plouviez and EBH Staters. There are two styles of BHB Stater obverse,

but one is only seen on the separate sub-type BHB(A). The following were the only examples of major changes made within a type, whilst retaining the main design elements:

- Differing styles of heads on LFC Unit.
- Very different styles of head and horse on the Saham Toney Unit.
- Changes in the style of horse's head on both BHB Units and Staters.
- Reversing the direction of the reverse image on Ece B Units and on JB Staters.

There were unavoidable weaknesses in the methodology:

- The assessment of change as either significant or minor is subjective, but in most cases it was an obvious decision.
- It is not possible to accurately assess the rate of production of each type, and hence its duration. However, all types selected appeared to have been produced steadily with a small number of dies being used at any one time, with the possible exception of part of the LFH Issue. Anted, Ecen and Ece B Units are often thought to have been produced quickly, however analysis of the late hoards has revealed them to have been produced over an extended period (6.5.3). I think it most unlikely that the contrast between types having variable or stable imagery is caused by the short duration of production of those types with stable imagery.
- The quality of known specimens of Plouviez and to an extent Snettisham Units is poor and may have resulted in change being missed; for reverse dies this is irrelevant as these types clearly have a high rate of die variation that is readily discernible.

Figure 5.38 illustrates the rate of change of imagery on the reverse dies of Units by showing on the bar chart the average number of dies used before there was a significant change in the imagery. The more rapid the change in imagery, the lower is the bar. Thus

the first bar relates to Bury A, showing that there was an average of only four dies produced before a significant change in the imagery, whereas for BHB there were 15 dies produced before such a change, and for BHC 102 dies with no change. In order to give an indication of the relative scale of production, the upper line on the chart shows the total number of reverse dies known for each type.

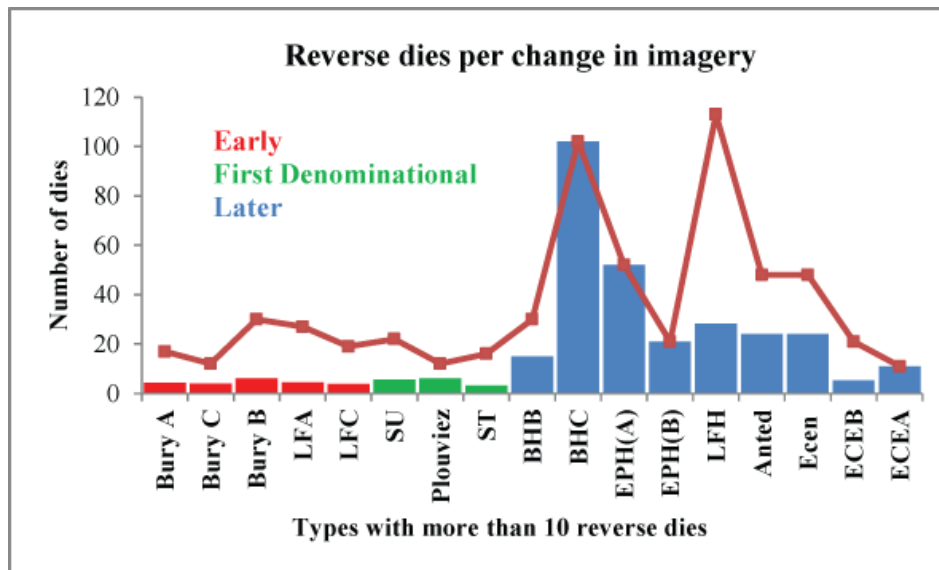


Figure 5.38. Unit reverse dies per change in imagery and total reverse dies

There was clearly a much higher rate of stylistic change in the early local period than in the later denominational periods. Unexpectedly the rate of change was also revealed to be high in the first denominational coinages, which are shown in green. Die numbers in the later periods were generally higher, but this does not distort the measure of die variability. Although the measure of average dies per change is somewhat coarse, the results are unambiguous. They clearly indicate that from BHB onwards, the reverse imagery of Units was much less variable than before. Ece B is an exception in being a late type with four variations in only 21 reverse dies.

Figure 5.39 analyses the variability of obverse dies for Units, which reveals broadly similar results to those for reverses. An exception is that Bury A and Plouviez do not show variability. Plouviez Units are usually in poor condition, which may have meant

that changes in iconography were not identified. This is not the case for Bury A which was struck from 12 obverse dies, all remarkably consistent in their imagery.

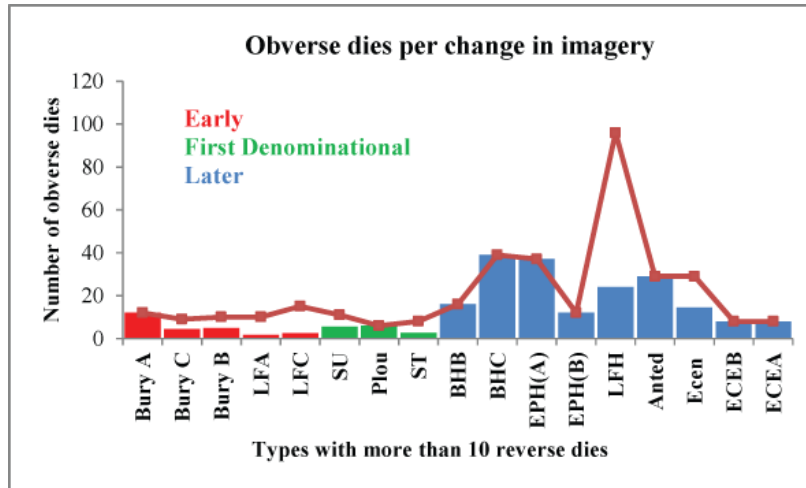


Figure 5.39. Unit obverse dies per change in imagery and total obverse dies

The top two rows of Figure 5.40 illustrate the variety in obverses seen in die-linked groups from LFC and LFA, in the early local period. The bottom row is typical of the consistency seen in later types, in this case from a die-linked group of Anted Units.



Figure 5.40. From top down: Obverses from LFC, LFC and Anted

Staters do not change from variable to stable imagery. Most types have reverse dies which show significant die variability, as shown in Figure 5.41.

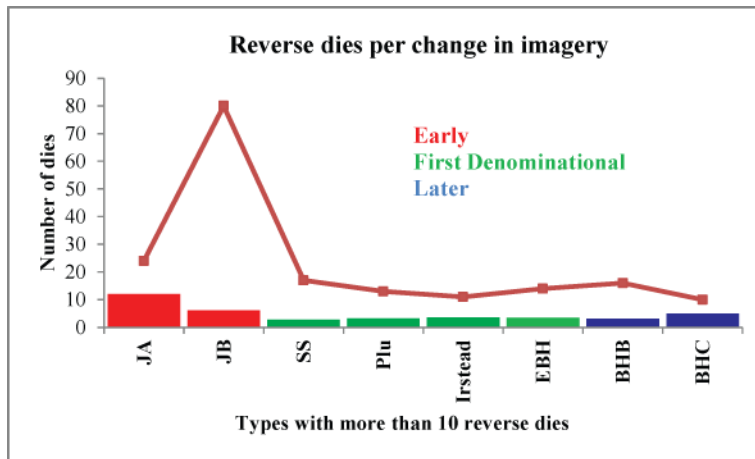


Figure 5.41. Stater reverse dies per change in imagery and total reverse dies

Obverse Stater dies are broadly similar although there are some signs of reduced variability for the final two types BHB and BHC (Figure 5.42).

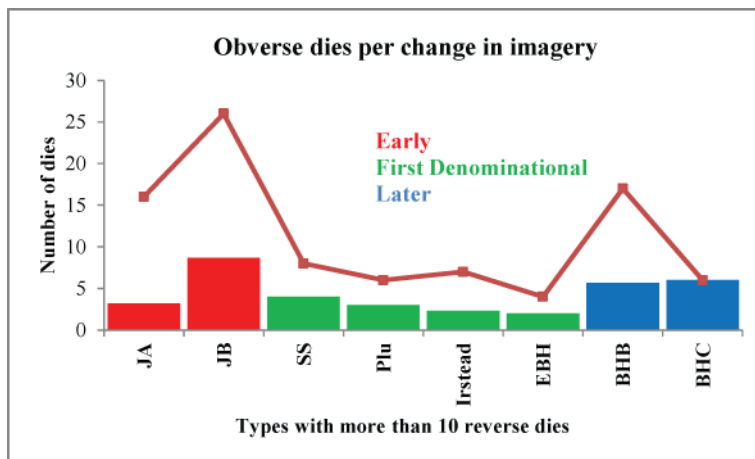


Figure 5.42. Stater obverse dies per change in imagery and total obverse dies

### 5.11 Overview of stylistic change – faces, patterns or boars

Icenian Units have on their obverse a head, a boar or a pattern based around back-to-back crescents. As discussed in 1.3 these were historically thought to represent three pagi making up the tribe. It is now clear that this is not the case. This section seeks to draw broad conclusions about these three design elements by looking at the relative chronology of their appearance on the coinage.

Each of the tables in Figure 5.43 is intended to represent the Icenian coinage in a chronological sequence. The earliest gold is shown top left and silver top right; the central single line reflects the first denominational Issues of gold and silver, S for Snettisham, P for Plouviez and I for Irstead. The lower part of each table represents the Issues of the three mints in operation from the mid-denominational period as three columns. Mint A is in the centre and Mints B and C to the right and left respectively.

Where one of the design elements is a major feature in a type or an Issue the background is solid colour but a fainter colour where it occurs in a minor way. Back-to-back crescents include all forms in which this device can occur and they are treated as present if they occur on one or more denominations of an Issue. The analysis shows a remarkable lack of overlap between coinages with a head, and those with back-to-back crescents on one or more of the denominations. The change from head to back-to-back crescents represents a chronological sequence although the LFH Issue is an anomaly. It appears that the Boar is of lesser overall significance.

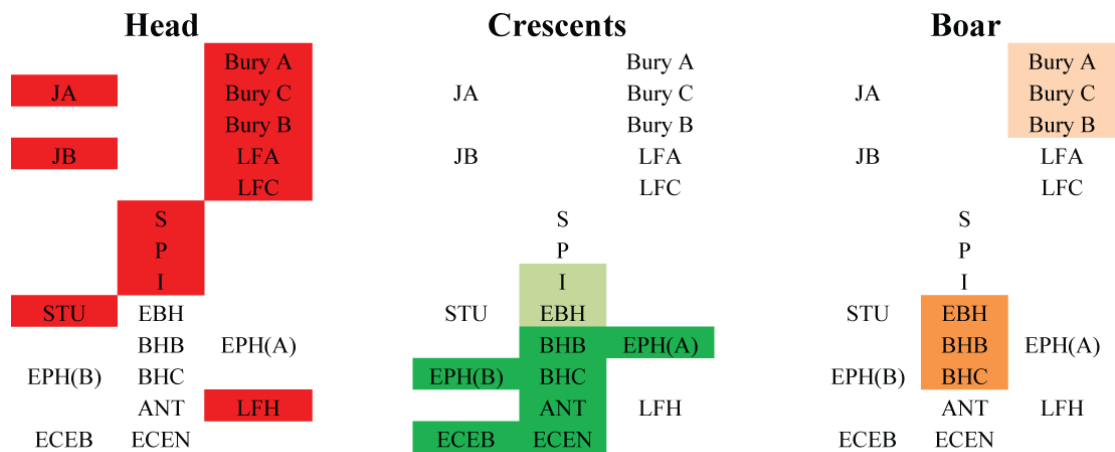


Figure 5.43. Occurrence of key design elements by chronology

### 5.12 Overview of stylistic change – summary

The analysis in 5.10 has shown that Units had variable imagery until the end of the first denominational period. The imagery for each type then became very stable. Staters do not

show the same pattern and the rate of change in imagery does not appear to vary on a consistent basis. When this is viewed alongside review in 5.11 it becomes clear that the change to more stable imagery on silver coincided with the introduction of back-to-back crescents as the main obverse element of design for the coinage as a whole.

These findings suggest that the unique properties of early Units were initially highly valued. However at the time when the back-to-back crescent motif was introduced, stability and consistency between coins of a type became more important. It is tempting to see these changes as being connected to, and perhaps the result of, broader political developments.

The anomalous late Issue, LFH, has a head on the obverse, stable imagery and no back-to-back crescents. The head on this Issue may have had a different significance (5.4.1).

### **5.13 Summary**

The major elements of imagery on the early gold coinage did not vary greatly. The obverses are directly derived from Gallo-Belgic prototypes (5.3.1), whereas the reverse imagery is, with a minor exception, specific to East Anglia. It appears to depict a narrative, perhaps a myth (5.3.2–3). The imagery of the early silver was examined by subject matter, considering first the human head and face. What may be the two earliest heads on Unit obverses show the least experimentation; one is probably derived from a Gallo-Belgic prototype and another from a Roman prototype. With subsequent types the imagery becomes more complex and starts to include hidden facial imagery some of which is very complex and sophisticated. There appears to be no attempt to make any image resemble an actual person (5.4.1).

A horse occurs on every Icenian reverse die other than the early gold types. The horse is sometimes used to create a hidden human face; such transformations may be

related to Gallo-Belgic androcephalous images. The horse was extremely important in East Anglia as evidenced by finds of horse equipment and by early Carthaginian bronze coins found at Ken Hill. These bronzes are prototypes for the LFC Unit, many of which also have been found at Ken Hill (5.4.2). A review of symbols used on silver coinage provided examples of their importance, demonstrated by the efforts made to change post-production dies and by the consistent substitution of the diamond by the hollow star on LFA (5.4.3). The obverse of the Bury Pallas Half Unit is examined in some detail showing that it is at the end of a chain of Gallo-Belgic stylistic development (5.4.4).

The key change with the denominational coinage was the adoption of consistent reverse imagery between the different denominations. From the mid-denominational period, the back-to-back crescent motif was present on most Issues and imagery for each type became extremely stable. The crescent motif originated in the North Thames area where it was discontinued with Cunobelin, but it became dominant in Icenian numismatic imagery with the notable exception of the LFH Issue. Other later elements of design, the pellet-triangle and the boar are also explored; the former is not thought to have any specific significance to Icenian coinage and the latter displays linkages with earlier Corieltavian coinage and may depict a standard rather than a living boar (5.5).

Icenian coinage generally avoids the Greco-Roman styles of representation and this extended to Augustan imagery which otherwise would have been expected to influence the later denominational Issues. This avoidance presents a contrast to southern and south-eastern LIA regional coinages (5.6).

The introduction of writing on the coinage does not coincide with other changes or simplification of imagery. An overview of epigraphic evidence suggests that the most common inscriptions are likely to be personal names. There is no reference to kingship with the possible exception of an R, on an Aliff Scavo die. The inscription on the small issue of EsvPrasto Units appears to include the name of a moneyer, and it is possible that

the other inscriptions may represent traders, moneyers and or officials such as leaders of sub-tribal units (5.7)

A number of close stylistic links have been identified between coinage from East Anglia and that of other regions, particularly for earlier coinage types. Certain of these examples appear likely to result from the same person cutting dies in different regions. This implies that some coinage was produced locally on a relatively informal basis. Other similarities seem more likely to represent the movement of ideas about style, although Roman styles appear to have been consciously ignored (5.8). Other introductions, such as the back-to-back crescents may have been politically motivated (5.12).

The most important design element in the early Units is the human head or face which is often hidden. During this period there was continuing change to the imagery and experimentation although the basic components remained constant. The changes made between one type and another, seen in Figure 5.10, appear indicative of a general artistic philosophy. This was to move from a straightforward Greco-Roman form of literal interpretation to a more complex but less 'realistic' manner of illustration. The latter contained hidden levels of information which would be open to the initiated or to those who searched for them.

#### **5.14 Conclusions**

The study has shown that Icenian numismatic imagery is part of the wider development of LIA art and decoration. This is shown particularly in the use of hidden faces which are seen on metal artefacts of many types from the LIA. The study has also shown how prototype imagery was changed to reflect a much more adventurous local aesthetic. Further research on the extent to which a discreet East Anglian aesthetic could be separated from that of other English regions would be illuminating.

The early local and first denominational silver coinage showed great variety in its imagery. This appears to reveal excitement and experimentation with a desire to create hidden and unusual effects. The imagery then became standardised with little or no emphasis on hidden forms. The subsequent coinage has features of mass-production. An extreme example of standardisation was the BHC Unit which was struck from 102 reverse dies with no significant variation.

I think that much of the imagery and script adopted on the mid- and later denominational coinage is related to the expression of power and stability. The introduction of back-to-back crescents seems to lend itself to this interpretation as it seems to have been adopted almost as a form of regional insignia, although it was excluded from the major Issue LFH. However I suspect that the strength or power being expressed may not be predominantly political. I will explore in Chapter 7 whether commercial strength and reliability are also being expressed through this script and imagery.



## **Chapter 6 Deposition, including hoards**

### **6.1 Introduction**

In this study I have used the Icenian hoards in conjunction with the die-study to help me to understand the organisation and relative chronology of the various types of coinage. After I had gained such an understanding, the hoards and the distribution of non-hoard coinage were analysed to provide clues and insights into how coinage was used, the nature of hoarding and more general social organisation and practices in LIA East Anglia.

In order to make sense of the large amount of material, most of the initial analysis of coinage distribution was made on the basis of a division between coins found in hoards, and those found individually or scattered across a location which I have called ‘casual losses’. The division between these two categories is somewhat arbitrary as some casual losses are likely to be the remnants of dispersed hoards. Indeed it is impossible to say whether even a single isolated coin find is really a genuine casual loss, or is the equivalent of a hoard, but for one coin. Despite these difficulties the division has generally worked in practice and the analysis of what are clearly hoards has generated large amounts of information including the revelation that hoarding was an intermittent, not a continuous, practice. The analysis of casual losses has also revealed much, including the sub-regional focus of many types or die-groups of coinage and differences between the types and denominations of coinage found as casual losses, and those hoarded.

Many lists of Icenian coin hoards have been produced including those by Allen (1970), Hutcheson (2004) and Chadburn (2006), but the key study is now that of Philip de Jersey (2014) who has combined all the previous work and much original research into a single corpus. He gives each British Iron Age hoard a definitive reference; these are referred to in this thesis with a ‘PdeJ’ prefix. Additional details of most hoards discussed in this chapter are given in Appendix X. I have not duplicated the detailed lists of hoard

content given by de Jersey, whose work takes into account my correction of historic errors of identification.

Hoards have been a key tool in my assessment of the relative chronology of Icenian coinage, which otherwise would have been dependent upon assumptions about weight, metal debasement and stylistic analysis. Information has been obtained by comparing chronologically ordered die chains of the most common coins in the hoard to identify the points at which the hoard 'closed'. This enables conclusions to be drawn not only about the types present in the hoard, but also about those absent. Types not present, but which appear broadly contemporary, may well postdate those which are present. Much information has also been obtained by 'coins per die' calculations (CPD) the principles behind which are discussed in Appendix XII, and the relevance of which are demonstrated in this chapter.

I start the chapter with a discussion about two unusual sites in the Snettisham area. Ken Hill, where the 'Snettisham Treasure' was found, has yielded large amounts of coinage. Detection and excavation at this site has produced an unusual mix of coinage that appears likely to be an amalgamation of a number of separate votive deposits. Finds from a nearby site at Shernborne are much less important, but some features of the site are similar to Ken Hill.

The next section examines all hoards in chronological order, based upon the latest coins present in each hoard. The section is split into three parts and includes evidence of the intermittent nature of hoarding and the formulaic structure of most hoards. The third section of the chapter examines a number of site assemblages from prolific sites, and extracts clues about different uses of coinage. The coinage from these sites is compared to that found in hoards and also to the site at Fincham. This analysis indicates there are clear differences between the prolific sites and both Fincham and hoard content, with only the

former having material quantities of Half Units, plated coinage and non-Icenian bronze coinage.

The fourth section considers the information obtainable from large scale mapping of 'casual losses'. The sub-regional distribution of certain types and die-groups is analysed in Chapters 2 and 3. This section examines the overall patterns of coinage distribution in East Anglia and differences in distribution between different denominations, which provides clues as to how coinage was used.

## **6.2 Snettisham**

This section discusses two sites in the Snettisham area which have produced unusual coinage assemblages.

### **6.2.1 Ken Hill**

The importance of Ken Hill in Snettisham became apparent with the famous finds of torcs in the so called 'gold-field', first discovered in 1948 as a result of deeper than normal ploughing (Clarke 1954). Subsequent excavations and metal detecting resulted in the discovery of further hoards of artefacts and coinage including the massive 'Bowl Hoard' which was illegally detected at the site in 1990 or 1991 following British Museum-led excavations at the site in 1990. Subsequent informal excavation and metal detection at the site uncovered the remains of a stone building. Dr Natasha Hutcheson identified this as a 'Romano-Celtic Shrine' situated at the edge of the gold-field, following a short professional excavation in 2004 (Hutcheson 2011).



Figure 6.1. The excavation of the Romano-Celtic temple at Ken Hill (Hutcheson 2011)

This clarified the layout of the site which has the shrine and its surroundings, including the gold field, enclosed within a *temenos* ditch (Hutcheson 2011).

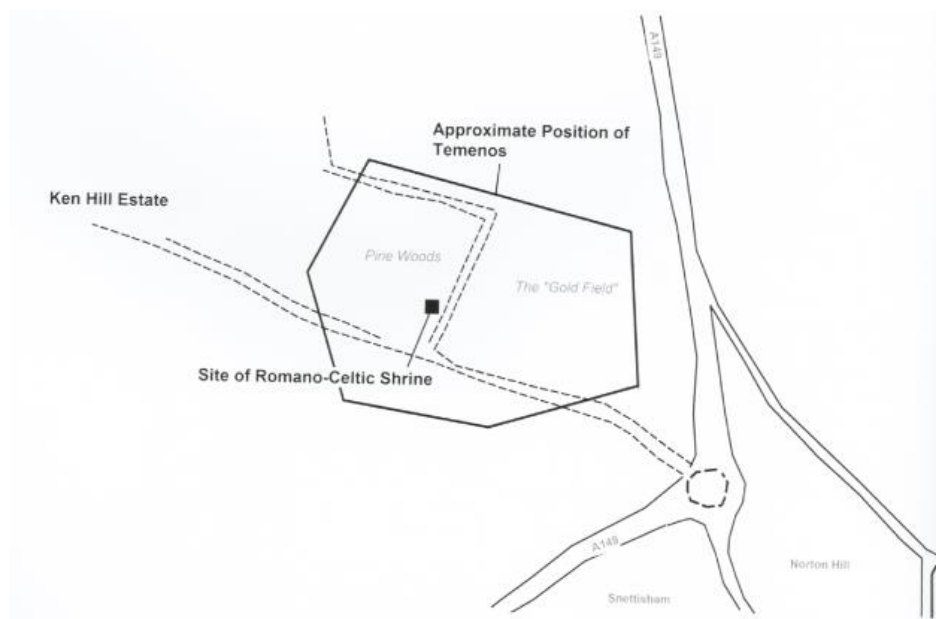


Figure 6.2. The shrine complex at Ken Hill (Hutcheson 2011)

Hutcheson found the archaeology of the site to be severely disturbed, but it was clear that the Romano-Celtic temple reflected the continuation of an Iron Age ritual site.

The following is a list of documented hoards found at the site which contain coinage, with a note of the latest type of coin in each hoard. Each hoard is designated by a letter, a practice initiated by Clarke for the five hoards found between 1948 and 1950, and

continued by Stead when documenting the British Museum's excavation on the site (1991).

<b>Hoard</b>	<b>PdeJ</b>	<b>Contents</b>	<b>Closing type</b>
B	196.1	Metalwork with 12 Staters and Quarters (1 Ingoldisthorpe)	G-B C/Ingold.
C	196.2	Metalwork and 145 flat linear potins	Potins
E	196.3	Metalwork with single Quarter Stater in torc terminal	G-B D (insular)
F	196.4	Metalwork and 9 Staters and Quarters (5 within torc)	G-B C
N	196.5	5 G-B A Staters and 2 G-B C plus 1 'oddity'	G-B C

Table 6.1. Documented Ken Hill hoards containing coinage

Hoards B and C were two of the first three hoards found on the site in 1948, some 30 feet apart (Clarke 1954: 30–1); the hoards also contained torcs and other metalwork. Both hoards were found to have been surrounded on all four sides by iron nails, suggesting to the excavator that they had been buried in 3 foot square wooden boxes (Clarke 1954: 35).

The Bowl Hoard (PdeJ 196.6), the largest and most important hoard of late Icenian coinage ever found, was detected illegally on the site and dispersed without its contents being recorded. This hoard is reputed to have contained some 6000 coins in a silver bowl with a separate deposit of 500 gold coins and ingots buried below it (Stead 1998: 147). Other estimates vary; Chadburn estimated c. 6600 silver coins in the bowl and c. 90 gold coins below it (2006: hoard 41).

Fortunately, a collector borrowed and photographed 1135 coins from the Bowl Hoard and recorded them at the Celtic Coin Index. These coins are analysed in X.1.1, revealing a strong similarity to the revolt-period hoards, but it seems that the sample lent to the collector had had most of the commercially valuable Aesv/Saenv and Cani Dvro

Units removed. Like the revolt hoards the sample contained strikes from the late dies of Units such as Anted and Ecen. These factors suggest that the Bowl Hoard closed at the same time as the other late hoards. The gold coinage is similar to the silver in being biased towards later Issues.

At the same time as Bowl Hoard coins were ‘on the market’ another group of coins also appeared, referred to as Hunstanton II (Chadburn 2006: hoard 45; PdeJ 196.7). These coins were mainly from the early local period and do not appear to be part of the Bowl Hoard, but still seem likely to emanate from Ken Hill (X.1.2). The gold in this hoard is a cohesive group of 56 JB Staters and 90% of the silver is LFC Units. These two components appear related; they are broadly contemporaneous and both include many plated coins. The Units include three later coins; this would be significant if the integrity of the hoard were beyond question, unfortunately this is not the case and it is likely that the cohesion of the hoard has been compromised (X.1.2).

In addition to the hoards discussed above, there have been numerous finds of LIA coins by metal detectorists on the site. Two groups of finds have been properly recorded and give an indication of the nature of the material that has been found on the site. Batch 1 comprises 42 identifiable coins. Some were found scattered across the site during a British Museum excavation project following the discovery of Hoard F, which removed the topsoil from 1.2 ha exposing five more hoards, none containing coins (Stead 1991). The remainder were found nearby by the metal detectorist who found Hoard F (see PdeJ 196.4). Batch 2 comprises 162 identifiable coins found by metal detecting and amateur excavation on the site between 2003 and 2010.

The two batches of coins are different in composition and each seems likely to include a series of scattered deposits. In the list below I have tried to make sense of the finds by collating coins that seem to relate to each other into groups, which may reflect some of the original deposits. The groups from batch 1 are in red:

## Chapter 6. Deposition, including hoards

- 2 3<sup>rd</sup> or 4<sup>th</sup> century BC Bronzes from Carthage, the prototypes for LFC (Figure 5.23)
- 7 Gallo-Belgic Staters and Quarter Staters, which may be from hoard F
- 10 Gallo-Belgic D Quarter Staters
- 5 Flat linear Potins
- 37 Thurrock Potins
- 2 British A Staters, 1 Clacton Stater and an Ingoldisthorpe Quarter Stater
- 6 Clacton Quarter Staters
- 17 JB Staters including 5 each from die-groups 8 and 18, and 3 from 16
- 5 JB Staters from die-group 18 and 16
- 16 Early local Units including 5 Bury A, 4 Bury B and 6 LFC
- 9 BHB Units
- Late Units – including 21 Ecen, 11 Anted and only 4 LFH

My attempt to re-create original deposits from the mixed assemblage is conjectural, but at least five of the 10 Gallo-Belgic D Quarter Staters are definitely closely related, as they are coated in a similar unidentified deposit which appears to have been melted onto them. Three are illustrated in Figure 6.3. Other groupings appear obvious, such as the Thurrock Potins and the Clacton Quarter Staters from batch 2. Notes on the logic behind others are included in X.1.4.



Figure 6.3. Examples of Gallo-Belgic Quarter Staters with surface deposit

It appears that there have been many deposits of coinage on Ken Hill. Many records are of coinages from early in the coin-using period such as Potins, Gallo-Belgic

gold and early British coinages. The evidence is not suggestive of continuous deposition of Icenian coinage and hoarding appears to be particularly concentrated in three main phases: before local production started, the end of JB Stater production and the revolt-period, the latter two coinciding with wider episodes of Icenian coinage hoarding.

The coinage found on site has included much non-Icenian material, but surprisingly little pre-revolt Roman coinage. The group of detector finds from 2003–10 included only a single coin from this period, a Republican Denarius of 81 BC, although there was later Roman material. Likewise the Bowl Hoard is also seemingly largely devoid of Roman material. Chadburn understood that it contained only three Denarii (2006: hoard 41). The absence of Republican Denarii is strange given that they were clearly present in the region, being found in hoards dating to the revolt and as a likely raw material for Icenian coinage. It seems likely that they were being deliberately excluded from this highly important site. Perhaps they were deliberately excluded because they were viewed as being alien or barbarous.

The links between the equine imagery on the Carthaginian bronzes and LFC and their common occurrence at the site is discussed in 5.4.2.

### **6.2.2 Shernborne**

A series of finds of coinage have emerged from a field in the parish of Shernborne, two to three miles from Ken Hill. There are some similarities to the coins from Ken Hill although there are fewer non-Icenian examples.

The first major find from the field was Shernborne A, a substantial hoard of JB and Snettisham Staters and Snettisham Quarters and Units, discovered in two batches in the late 1980's. The hoard is discussed in 6.4.2 and in X.1.5, one batch closed at the end of Snettisham Stater production and the other may have closed slightly earlier. The omission

of the final seven Snettisham Quarter Stater dies from this hoard is important evidence for the continuation of that type alongside the Plouviez Issue (3.4 and III.3).

Another area of the field, measuring some 170 x 200 m, yielded 50 identifiable finds during 2014 which I have called Shernborne B (X.1.6). These form several groups which may be separate deposits:

- 7 JB Staters, 6 from die-group 18 and the other die-group 16. A plated South Ferriby Corieltavian Stater may also belong to this group.
- 22 Quarter Staters from early Snettisham to BHB types
- 7 Early local Units including 4 Bury B's

The remaining 14 coins are not obviously attributable to discrete deposits and include two post conquest Denarii from AD 69.

The group of Quarter Staters include an example of every Snettisham obverse die and all periods of Irstead production, as well as two of the ensuing BHB Issue. They represent production over a number of decades, and lack the bias towards later types expected if they were deposited in a single event from a 'pool' of coinage. They give the appearance of having been accumulated gradually over an extended period, possibly by the annual addition of a single coin. It is conceivable that they are the result of a regular votive offering of a single Quarter Stater, although of course there are other possible interpretations.

### **6.3 The hoards**

East Anglian hoards are covered in sections 6.4 to 6.8. Section 6.4 addresses all hoards which closed prior to the Boudiccan revolt and 6.5 relates to the late hoards which date from the revolt period. Important information has been obtained from these hoards about the formulaic nature of their content and the relative chronology of Icenian coinage. Section 6.6 uses some of these data, with other evidence to examine the likely timing of

the cessation of Icenian coinage. Section 6.7 briefly considers two other possible late hoards which are not considered in 6.5. Section 6.8 draws together the information from the previous sections to look at the relative chronology of all Icenian hoards and concludes that hoarding was not a continuous phenomenon.

#### 6.4 East Anglian LIA hoards pre-dating the Boudiccan Revolt

This section starts with a brief summary of East Anglian hoards of pre-Icenian Gallo-Belgic and early British coinage and is followed by three more sub-sections which analyse more fully all subsequent hoards prior to the Boudiccan revolt.

##### 6.4.1 Hoards of Gallo-Belgic and Early British coinage

The earliest Gallo-Belgic gold coinages GB A and C are rare in East Anglia, although they were found in hoards at Ken Hill (see 2.2.1). The ensuing Gallo-Belgic type, GB E, has been frequently found in the region, including in the following five well-recorded hoards from Norfolk in Table 6.2 and in Heacham II and the Sculthorpe hoards (6.4.2).

Hoard	PdeJ	Gallo-Belgic E class				G-B D	Other	Total
		1	2	3	4			
Fring II	<b>183</b>	39	90	39	2	3		173
Weybourne	<b>205</b>	14	33	4	-	4		55
Buxton with Lammas	<b>177</b>	5	8	3	-	-	1 Clacton Q (ABC 2350)	17
Sedgeford	<b>194</b>	7	19	11	2	-		39
Wormegay	<b>206</b>	-	5	2	-	-		7

Table 6.2. East Anglian hoards containing Gallo-Belgic E Staters and D Quarter Staters

The five hoards are similar, the biggest component being GB E class 2 Staters, closing with either class 3 or a small number of class 4 Staters. Sills (2005) and Scheers (1983: 340) suggest that the classes of GB E reflect a chronological progression. Thus it is possible that these hoards were deposited within a short period of each other, close to the transition from class 3 to class 4. Finds of the Ingoldisthorpe coinage, the East Anglian variant of British A, are discussed in 2.2.4.

#### **6.4.2 Hoards of early local gold**

There are only two hoards known to close with die-group 1 of the JA Stater, both also containing GB E Staters: the fully documented Sculthorpe Hoard, found in 2015, and a hoard believed to have been found over a number of recent years in the Heacham area of North Norfolk, which I have called Heacham II.

The Sculthorpe Hoard contained 11 JA Staters, all from die-group 1, and nine GB E Staters, of which eight are clearly from classes 2 and 3, the other being unclear. This hoard also contained four Bury C Units which were badly corroded, but which appeared to be all from reverse die 3. Few details are available of the Heacham II, the only recorded contents being 2 JA Staters from die-group 1 and a GB E Stater of either class 1 or early class 2.

These two hoards are extremely important in positively linking the earliest JA Staters and GB E Staters. Weight, stylistic evidence and metal content had already led to an assumption that the two types were close in date. The Bury C Units in the Sculthorpe hoard indicate that Icenian silver coinage probably started within a few years of the earliest JA Staters (2.5.1)

The Sculthorpe Hoard includes a full range of dies from die-group 1 of the JA Stater and it is possible that there was a hoarding horizon at the end of this die-group, which coincided with a reduction in gold content and weight. However the existence of an

extensive episode of hoarding at this point seems unlikely, as there are only 2.8 known coins per die (Table 2.4) for die-group 1, and new dies continue to be found. This implies that there are no major undeclared hoards of these coins. The physical differences between die-group 1 and subsequent production and the absence of die-linking to later die-groups may simply reflect a pause in production.

There are no fully documented hoards closing with later JA Staters, but there are clearly undeclared hoards, as there are over 11 known coins per die for die-group 4 (Table 2.4). Coins from two such hoards have been traced, hoards M and N, which contained tightly die-linked groups of five and four coins respectively (see X.2.3 and X.2.4). Three small groups of Staters are also recorded from normally ‘non-prolific’ locations and these are probably also from hoards. This evidence, taken together with the many coins without a provenance, implies that there was an episode of hoarding towards the end of the JA series (Table 6.3).

Hoards M and N of uncertain provenance	9
Two or three coins from 3 non-prolific sites	8
Other provenanced coins	19
Coins without provenance	48
Total die-group 4 coins	84

Table 6.3. Analysis of JA die-group 4 provenances

JB Staters were minted in at least three parallel sub-types. Like the JA Stater, there are few coins per die for the earlier die-groups and many more for the later ones, implying an episode of hoarding towards the end of JB Stater production. There are several well-recorded hoards of JB Staters, as well as several unrecorded hoards identified by myself and others. All are listed below, and referred to in more detail in Appendix X.

- Ashby St Mary (‘ASM’)
- Lochdales (‘L’) – PdeJ 305
- Beccles (‘Be’)

Chapter 6. Deposition, including hoards

- Brettenham ('Br') – part of PdeJ 175
- Hoard D
- Heacham ('H') – PdeJ 185
- Hunstanton II ('SH II') - PdeJ 196.7
- Shernborne A ('Sh A') – PdeJ 195
- Shernborne B ('Sh B')

The hoards are summarised in Table 6.4. Each plated JB Stater has the characteristics of a particular die-group of JB, to which they are allocated in the table and shown in brackets. The silver content of Hunstanton II is not fully resolved and is discussed in X.1.2; the table below includes only its gold content which is cohesive, and likely to be accurate.

Type	Die Group	ASM	L	Be	Br	D	H II	H	Sh A	Sh B
JA								1		
JB A	1			2			1	1		
JB A	4							1		
JB A	8	34 (1)	12				3			
JB Ci	11			1				1	1	
JB Cii	16	9			(1)	2	30 (19)	15 (1)	32	(1)
JB D	17					1	1	1	2	
JB D	18				4	1 (1)	2	4	9	5 (1)
SS								3	30	
SQ									13	
SU									3	
LFQ									1	
<b>Total</b>		<b>44</b>	<b>12</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>56</b>	<b>28</b>	<b>91</b>	<b>7</b>

Table 6.4. Hoards including JB staters

All of the above hoards, except the three coins from Beccles, have most of their JB Stater content from the late die-groups 8, 16, 17 and 18. Each hoard is usually focussed on one or two of the final die-groups, information which helped in confirming that the

different sub-types of the JB Stater have sub-regional distributions (2.4.2). Most of the hoards with a provenance are from north-western Norfolk, which seems to have been the main area of focus for sub-type D (die-groups 17 and 18) and is near to the more central East Anglian focus of sub-type Cii (die-group 16). The only hoard which is predominantly of coins from die-group 8 of sub-type A was found at Ashby St Mary in south-east Norfolk. Some sub-type A distribution appears to be centred on the Waveney valley in the south of the region (2.4.2).

The hoards have helped to establish that JB Stater die-groups 8, 16 and 18 were minted in parallel and ceased at about the same time. I attempt to illustrate this in Table 6.5. Die-group 17 is not examined in the same depth as the other three late die-groups because it is very small, and stylistically closely related to die-group 18. I list in the table the dies of each die-group in my assessment of their chronological order. Thus for die-group 16, die 42 is thought to be the earliest and die 64 the last in the sequence. The chronological ordering of dies was straightforward for die-groups 8 and 16, but more subjective for die-group 18. The dies present in each hoard are shown in red. Plated coins, which are clearly based on particular dies, are shown in brackets.

Hoard	Die-group 16	Die-group 18	Die-group 8
ASM	42, <b>43, 44</b> , 45, 46, 47, <b>48</b> , 49, 50, 51, 52, 53, <b>54</b> , 55, 56, <b>57</b> , 58, <b>59</b> , 60, 61, 62, 63, 64	67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78	<b>16</b> , 17, <b>18, 18A</b> , 19, <b>20</b> , 21
H II	42, <b>43</b> , 44, 45, 46, <b>47, 48, 49</b> , 50, <b>51, 52, 53</b> , 54, <b>55</b> , 56, <b>57, 58, 59</b> , 60, 61, 62, 63, 64	67, 68, 69, 70, 71, 72, <b>73</b> , 74, <b>75</b> , 76, 77, 78	<b>16</b> , 17, 18, 18A, 19, 20, 21
H	42, 43, 44, 45, 46, 47, 48, 49, 50, 51, <b>52</b> , 53, 54, 55, 56, <b>57</b> , 58, 59, <b>60</b> , 61, 62, 63, <b>64</b>	<b>67</b> , 68, 69, 70, <b>71</b> , 72, <b>73</b> , 74, 75, 76, <b>77</b> , 78	16, 17, 18, 18A, 19, 20, 21
L	42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64	67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78	16, 17, <b>18</b> , 18A, <b>19, 20, 21</b>
Br	42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, ( <b>54</b> ), 55, 56, 57, 58, 59, 60, 61, 62, 63, 64	<b>67</b> , 68, 69, 70, <b>71</b> , 72, 73, 74, 75, <b>76, 77</b> , 78	16, 17, 18, 18A, 19, 20, 21
Sh B (1)	42, ( <b>43</b> ), 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64	<b>67</b> , 68, 69, 70, <b>71</b> , 72, 73, 74, <b>75</b> , 76, 77, 78	16, 17, 18, 18A, 19, 20, 21
Hd D	42, 43, 44, 45, 46, 47, 48, 49, 50, <b>51</b> , 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, <b>63</b> , 64	67, 68, 69, 70, <b>71</b> , 72, 73, 74, 75, 76, 77, 78	16, 17, 18, 18A, 19, 20, 21
Sh A	42, 43, 44, 45, 46, 47, 48, 49, 50, <b>51, 52</b> , 53, <b>54</b> , 55, <b>56, 57, 58</b> , 59, <b>60, 61, 62</b> , 63, 64	67, <b>68</b> , 69, <b>70, 71, 72, 73</b> , 74, <b>75</b> , 76, 77, 78	16, 17, 18, 18A, 19, 20, 21

Table 6.5. The dies of the three late JB die-groups included in key hoards

Table 6.5 shows that Ashby St Mary included late dies of die-group 8 and the sixth from last die of die-group 16, suggesting that these two die-groups were produced in parallel. Hunstanton II and Heacham both have late dies from die-groups 16 and 18 indicating that these two die-groups were also produced in parallel. Although the evidence is more tenuous, Hoard D, Brettenham and Shernborne B (1) taken together, also suggest that the output of die-groups 16 and 18 were contemporaneous. Similar evidence is provided by Shernborne A which closed later during the Snettisham denominational coinage, but which contains a strong representation of late dies from die-groups 16 and 18.

Shernborne A postdates JB production, but except for Heacham, the other hoards shown in Table 6.5 close with late dies from at least one of the final JB die-groups. This implies that much hoarding took place at or near the end of JB production. Heacham has similar timing; it includes late JB dies and a few very early Snettisham Staters, suggesting closure just slightly after the transition to the denominational coinage. Few of the early and smaller JB die-groups have been recorded from hoards, implying little hoarding activity whilst they were in production.

There is a scattering of coins from earlier JB die-groups and a single JA Stater in the hoards analysed, which indicates that these are the earliest elements in the hoards. This is in accordance with conclusions based on weight and gold content (2.4.2 and Appendix II).

### **6.4.3 Early local silver and mixed hoards**

Known and likely hoards of silver coinage from the early local period are shown in Table 6.6. Plated coins are shown in brackets.

<b>Hoards</b>	<b>Bury A</b>	<b>Bury C</b>	<b>Bury B</b>	<b>LFA</b>	<b>LFC</b>	<b>Other</b>
Sculthorpe		4				GB E and JA Staters
Barham	2	6				Possible NT Quarter
Nettlestead	5	1				
Hunstanton II				1(1)	19(28)	JB Staters and possibly 3 later Units (see other possible material – X.1.2)
<b>Possible hoards</b>						
Santon Downham	2		1			Saham Toney Unit
Sherborne B	1		4	1	1	
Ken Hill	5		4		6	Bury D Unit

Table 6.6. Known and possible hoards with early local silver coinage

There are only three well-recorded hoards: Sculthorpe (see 6.4.2), Barham and Nettlestead. Barham and Nettlestead, which both contain Bury A and Bury C Units, were found within a few miles of each other, and possibly their deposition is related to the same unknown set of circumstances. Barham comprised two batches and two scattered coins, the second batch included both Bury A and Bury C (X.3.1).

Information about Hunstanton II is confused and is discussed in X.1.2. The silver attributed to the hoard includes the cohesive group of LFC and LFA Units included in Table 6.6. There was a full range of LFC dies and it seems likely that the hoard also included ten or so Corieltavian Units. This silver was probably found with the JB Staters analysed in 6.4.2 which implies closure just before the end of JB Stater production. It seems likely that Hunstanton II closed at the end of the early local period, and an anomalous record which links three later Units with the hoard has been disregarded (see X.1.2). Evidence of the three possible hoards at the end of the table is somewhat tenuous. Santon Downham is based on information from a dealer, and the assumptions behind the other two are discussed in 6.2.

These hoards provide general indications of relative chronology. Sculthorpe indicates that Bury C is very early and is probably contemporaneous with early JA Staters. Barham and Nettlestead indicate that Bury A and Bury C were probably contemporaneous. Hunstanton II indicates that LFC is later and probably contemporaneous with late JB Stater production. The hoards demonstrate that hoarding of silver coinage was taking place in the early local period; there is no significant evidence of the subsequent hoarding of silver coinage until the Boudiccan Revolt.

Although evidence about 'Hunstanton II' is frustratingly vague it seems that this was a single hoard containing many JB Staters and LFC Units and that a significant proportion of both were plated, as shown in Figure 6.4 and Figure 6.5. These plated coins are either struck from official dies or, more likely, from hubbed copies. The plated JB Staters from the hoard are silver in appearance, a metal test commissioned for this study revealed that this was because the plating contained 30% silver and only 6% gold (Appendix V). An 'official' coin appearing to be from the same dies, in the Ashby St Mary hoard, is obviously golden in colour. This implies that these silver-plated Staters may not have been intended to deceive. They may have had a function which differed to that of the 'official' coinage.



Figure 6.4. Plated LFC unit from Hunstanton II



Figure 6.5. Plated JB Staters (all die 54) from Hunstanton II

**6.4.4 Hoards closing with uninscribed denominational coinage**

All documented denominational period hoards prior to the Boudiccan revolt contain only Staters. They include the large Dallinghoo hoard (Talbot and Leins 2010), originally recorded as Wickham Market, and are all summarised in Table 6.7.

Type	Runhall	'Hoard A'	Freckenham	Sustead	Dallinghoo	Little Saxham
JB	1 (pltd)	0	0	0	0	0
Snettisham	3	0	0	0	5	0
Plouviez	5	1	8	1	55	0
Irstead		11	26	2	188	1
EBH		18	49	5	221	0
BHB		0	2	1	366	1
BHC		0	0	0	0	5
Corieltauavian		0	0	0	5	0
Total	9	30	85	9	840	7

Table 6.7. Denominational period hoards of Staters

The earliest of these hoards is Runhall, which appears to have closed towards the end of the production of the Plouviez Stater. There are no known hoards which closed during the production of Irstead. Hoard A, Freckenham and Sustead closed close to the transition between EBH and BHB Staters. These three hoards have similar content (Table 6.8). Two contain BHB Staters, a total of only three coins, which were struck from the very early dies A:3, B:2 and B:4. Die 1 seems to have been abandoned early after developing a flaw. The strike from die 4 is very early in its use, predating most strikes of die 3. Thus these three hoards seem to have closed at approximately the same time, possibly in response to the circumstances which brought about the change in coinage from EBH to BHB.

Hoard	EBH Stater dies		BHB Stater dies	
	Die-group 1	Die-group 2	BHB	BHB(A)
A	1,2,3,4,5,6,7,8	9,10,11,12,13,14	1,2,3,4,5,6,7,8,9,10,11,12,15,16	13,14
Freckenham	1,2,3,4,5,6,7,8	9,10,11,12,13,14	1,2,3,4,5,6,7,8,9,10,11,12,15,16	13,14
Sustead	1,2,3,4,5,6,7,8	9,10,11,12,13,14	1,2,3,4,5,6,7,8,9,10,11,12,15,16	13,14

Table 6.8. The dies in the three hoards closing at the EBH to BHB transition

The Dallinghoo hoard closed towards the end of BHB Stater production and omits only the final few dies of both BHB and sub-type BHB(A). Five of the seven coins in the Little Saxham hoard are BHC Staters, the subsequent Issue to BHB. The five are struck from a range of dies including D and F which are late obverse dies in the only two die-linked sequences of BHC Stater dies that have so far been identified. Thus it appears likely that Little Saxham closed towards the end of BHC Stater production.



Figure 6.6. The location of hoards of gold denominational coinage

Figure 6.6 shows the findspots of the five provenanced hoards, three of which are located towards the southern limits of Icenian coinage distribution. In the 2010 paper we speculated that the deposition of these hoards may have been related to the rise to power of Cunobelin in the North Thames area (Talbot and Leins 2010). This is possible, but it is now apparent that the timing of each of the three hoards deposited in this area is different

and a further hoard discovered since that paper, albeit from a fourth point in time, has been found in the centre of the region.

The Dallinghoo hoard supported the hypothesis, developed prior to its discovery, for the ordering of denominational coinage between the Snettisham and BHB Issues. When examining Staters of this period I believe that the number of ‘coins per reverse die’ (CPRD) is a better indicator of relative age than the number of CPD, as the latter calculation includes obverse dies which sometimes saw excessive use (see glossary, Appendix XII). Table 6.9 uses this measure and indicates the relative antiquity of Snettisham and Plouviez Staters and that BHB was the latest coinage in the hoard.

<b>Type</b>	<b>CPRD</b>
Snettisham	0.3
Plouviez	4.2
Irstead	17.1
EBH	15.8
BHB*	28.2

Table 6.9. Average coins per reverse die within the Dallinghoo hoard. \* The count of BHB reverse dies excludes the three which postdate the closure of the hoard

Unexpectedly, Dallinghoo has a higher CPRD for Irstead Staters than for EBH, implying that EBH is the earlier coinage. I believe that the reverse is the case. This is supported by weight analysis, which showed the EBH Stater to be lighter than the Irstead Stater (Table 4.5), and by stylistic analysis, which linked the end of EBH to the early BHB Staters (Figures 3.5 and 3.6). Both Freckenham hoard and Hoard A also support my ordering; thus there is an unexplained bias in the Dallinghoo hoard towards the presence of Irstead Staters (Table 6.10).

	<b>Dallinghoo</b>	<b>Freckenham</b>	<b>Hoard A</b>
Irstead	17.1	2.4	1.0
EBH	15.8	3.5	1.3

Table 6.10. Comparison of CPRD in three relevant hoards

The scale of Dallinghoo enables a meaningful analysis of its BHB Stater content, the latest type in the hoard. Table 6.11 shows that the hoard has a much greater presence of the final dies of the type than earlier dies.

<b>BHB Stater reverse dies</b>	<b>Number in Hoard</b>	<b>Coins per die</b>
1–4	49	12.2
5–8	84	21.0
9–12	202	50.5

Table 6.11. The relative presence of BHB Stater dies in Dallinghoo hoard

Table 6.11 not only shows that Dallinghoo hoard was biased towards recently produced coinage but also implies that the BHB Stater had been produced steadily over an extended period and not in a single burst of activity.

The earliest coins in the Dallinghoo hoard are five Snettisham Staters, four of which are die-linked; the fifth may also be die-linked but its reverse is previously unknown and its obverse unidentifiable. These die-links indicate that the Snettisham Staters may have been kept together between minting and deposition. The hoard also contained five uninscribed Corieltavian Staters, all varieties of the ‘South Ferriby’ type. These include three of the more unusual varieties implying that they may represent a number of separate coins coming from the neighbouring region over time, rather than a single group ‘imported’ together.

A key feature of these hoards is the consistency of their content. All 980 coins found in the six hoards summarised in Table 6.7 are Staters, and only one is plated. The

only non-Icenian coins are the five Corieltavian Staters from Dallinghoo. The only coin which dates back to the early local coinage is the plated Stater from the earliest hoard, Runhall.

### 6.5 The hoards of late Icenian silver coinage

There have been many discoveries of hoards of late Icenian silver coinage, some of which also contain Roman Denarii. The hoards have been found throughout the region, as is shown in Figure 6.7, where well-evidenced hoards are recorded with a solid triangle; those in red solely comprise LIA coinage whereas those in blue have Roman content. The map shows that hoards from the fens, around Stonea, do not have Roman content although Chadburn (2006) mentions a possible Icenian hoard, 'Stonea III', which may have contained Roman Denarii. With the possible exception of the fens there seems to be no geographic bias to the presence or absence of Roman coinage in late hoards.

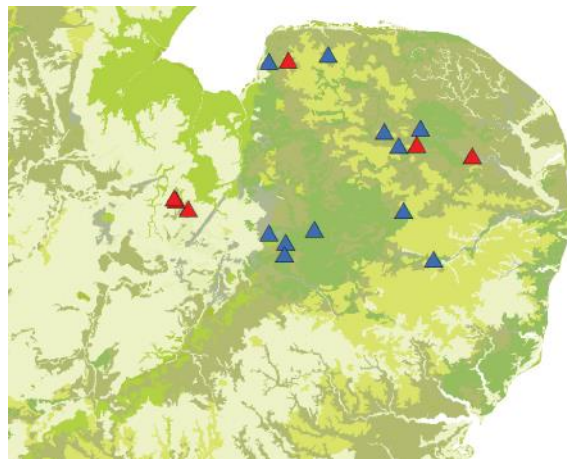


Figure 6.7. Hoards of late Icenian silver

The first sub-section summarises a detailed review that has been undertaken on selected hoards which reveals their homogenous nature. I then analyse the known Roman content of all late hoards. This has been important in establishing the dating of the closure

of the hoards as well as providing other clues about the flows of Roman coinage into East Anglia.

The final sub-section uses the results of the review of the late hoards to assess the relative chronology of mid- and late Icenian coinage, work that has been the key to establishing the organisation and chronology of much of the coinage.

### 6.5.1 Detailed review of Icenian content of late hoards

For the comparative analysis I selected hoards which were comprehensively recorded and contained at least 100 Icenian coins. The five hoards which met these criteria were Field Baulk ('FB'), Lakenheath ('LH'), Fring ('FR'), Honingham ('HH') and Eriswell ('ER'). Notes on these hoards, as well as others which do not meet the criteria but which contain valuable data, are included in X.5.

Table 6.12 shows the remarkable uniformity of the Icenian content of the hoards. Over 99% are Units, plated coins are extremely rare and there is only a single Icenian Stater in over 2000 coins. The coinage of other regions is also largely absent with only two examples, both Staters of Cunobelin, in the five hoards. Roman Denarii are either plentiful or entirely absent.

<b>Hoard</b>	<b>FB</b>	<b>LH</b>	<b>FR</b>	<b>HH</b>	<b>ER</b>	<b>Total</b>
Official Units	867	410	172	344	255	2048
Plated Units	5		1			6
Staters		1				1
Total Icenian	872	411	173	344	255	2055
Other Celtic Staters		2				2
Roman		67			72	139
<b>Total coins</b>	<b>872</b>	<b>480</b>	<b>173</b>	<b>344</b>	<b>327</b>	<b>2196</b>

Table 6.12. Content of the selected hoards

The Icenian Units within each hoard have a similar composition. Table 6.13 analyses each hoard, expressing the number of each type of Icenian Unit as a percentage of total Icenian content. Plated coins are analysed as if they were official coins of the type being copied.

	<b>FB</b>	<b>LH</b>	<b>FR</b>	<b>HH</b>	<b>ER</b>	<b>Average</b>	<b>SD</b>
Ecen	30.73%	28.22%	32.95%	26.45%	28.63%	29.40%	2.24%
Ece A	8.37%	7.79%	10.98%	6.98%	5.49%	7.92%	1.81%
Ece B	11.24%	11.44%	9.83%	10.47%	9.41%	10.48%	0.78%
Aesv/Saenv	3.10%	2.19%	0.58%	2.03%	1.96%	1.97%	0.81%
LFH	19.73%	21.41%	20.23%	24.42%	28.63%	22.88%	3.30%
Anted	22.71%	22.38%	20.81%	22.38%	20.00%	21.66%	1.06%
BHCD	0.11%	0.73%	0.00%	0.29%	0.39%	0.30%	0.25%
BHC	2.98%	4.38%	1.73%	4.07%	2.75%	3.18%	0.95%
EPH(B)	0.11%	0.49%	0.00%	1.16%	1.57%	0.67%	0.61%
Earlier	0.92%	0.73%	2.31%	1.74%	1.18%	1.38%	0.58%
Other	0.00%	0.24%	0.58%	0.00%	0.00%	0.16%	0.23%
Total Icenian	100%	100%	100%	100%	100%		

Table 6.13. The late hoards selected for analysis

Table 6.13 shows that the presence of the commoner late coinage types in each hoard is broadly similar. This is confirmed statistically by the low standard deviation ('SD') of each component type. The LFH Unit shows the most variation of the commoner types, with its presence ranging from 19.7% to 28.6%, resulting in a standard deviation of 3.3%, whereas the presence of Anted, for example, only ranges between 20% and 22.7%. Coinage which predates BHC and EPH(B) only comprises 0.73% to 2.31% of Icenian content. Figure 6.8 presents the same data in graphic form illustrating the broad similarity of Icenian content in each of the hoards.

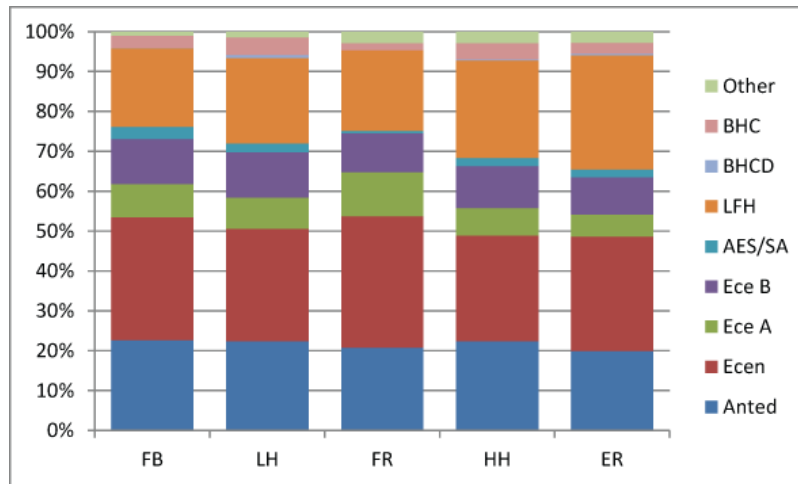


Figure 6.8. The Icenian content of the late hoards

The Icenian content of these hoards is also similar when examined by individual die. This is illustrated in Table 6.14 which shows the presence in the hoards of a selection of commoner dies, most of which are from late in the longer die chains. The analysis reveals that, with one exception, each die is present in all five hoards.

	<b>FB</b>	<b>LH</b>	<b>FR</b>	<b>HH</b>	<b>ER</b>	<b>Casual losses</b>	<b>Total known</b>
Anted die L	9	4	1	9	8	10	85
Anted die N	20	10	5	4	1	7	90
Ecen die N	36	20	12	14	14	14	226
Ecen die P	14	6	5	4	6	9	103
Ecen die 33	6	7	1	2	2	2	35
Ecen die 38	21	4	3	6	4	9	110
LFH die 84	13	4	3	5	4	11	104
LFH die MC	4	1	0	4	0	0	29
Ece B die E	22	9	3	4	3	6	105
Ece A die G	22	14	4	9	2	10	119

Table 6.14. Number of coins from selected dies in the late hoards

A comparison of the die-study with the content of the late hoards indicates that minting ceased before the hoards were closed. All obverse dies of Ece A, Ece B or Aesv/Saenv are represented in the late hoards, and the only Ecen and Anted obverse dies

not represented in the hoards are rare, unusual in appearance and probably plated. There are more examples of LFH obverse dies which are not known from hoards, but of these only two dies, FB and X, appear definitely official and could conceivably postdate others found in the hoards.

To further illustrate the homogeneity of the hoards, Table 6.15 shows the presence of a chronological sequence of obverse dies from Ecen die-group 1 in each hoard.

<b>Die</b>	<b>FB</b>	<b>LH</b>	<b>FR</b>	<b>HH</b>	<b>ER</b>
<b>C</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>E</b>	<b>22</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>5</b>
<b>F</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>
G	4	0	0	0	5
H	5	6	0	3	3
<b>J</b>	<b>41</b>	<b>15</b>	<b>5</b>	<b>16</b>	<b>9</b>
<b>M</b>	<b>15</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>2</b>
<b>N</b>	<b>36</b>	<b>20</b>	<b>12</b>	<b>14</b>	<b>14</b>
<b>O</b>	<b>10</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>4</b>
<b>P</b>	<b>14</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>6</b>
Q	1	0	1	0	0
R	0	0	0	1	0

Table 6.15. The presence of Ecen die-group 1 obverse dies in the five late hoards

Table 6.15 omits five uncommon dies that probably had a short life (A, B, D, K and L) but includes the uncommon dies Q and R, which were probably in use when production stopped. To highlight the similarity of the hoards, dies which are present in each hoard are shown in red. This analysis shows that not only do the late hoards contain the same Icenian types in broadly similar proportions, but they also contain similar dies. The analysis also indicates that production of the types of coinage within the hoards did not continue after their closure.

An unexpected feature of the hoards is that they are homogenous, notwithstanding that there appears to be a sub-regional focus to the ‘casual losses’ of some types and die-

groups. This suggests that the revolt-period hoards were not simply extracted from money circulating in the area local to the hoard.

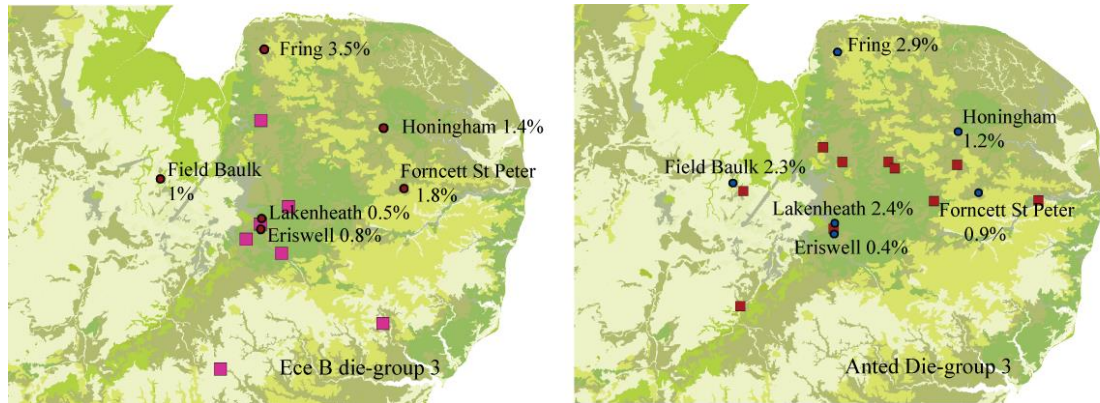


Figure 6.9. Distribution of casual losses compared to hoard content

I attempt to show this in Figure 6.9 which analyses die-group 3 of both Ece B and Anted. Casual losses are shown by coloured squares, these indicating that the distribution of the Ece B die-group is mainly in the south-west of the region, whereas that of Anted is focussed slightly further north. Each map also shows the location of the five hoards selected for study and the Forncett St Peter hoard; above the name of each hoard is shown the percentage of the Icenian content of the hoard composed of coins of the relevant type and die-group. Neither example shows any correlation between hoard content and the proximity of that hoard to the main area of distribution. In both cases the hoard containing the highest proportion of its content from these die-groups is Fring, which is outside the area in which casual losses have been found.

### 6.5.2 Roman coinage in the hoards

The homogeneity of the Icenian coinage in the hoards contrasts with their Roman content. This varies between being a large part of the hoard – such as Scole where Roman coinage is 23% of content by number of coins, almost 50% by weight and considerably more than half by silver content – and being entirely absent as it was in the Field Baulk hoard of 872

Icenian Units. The late hoards with documented Roman content are listed in Table 6.16, with a note of the latest Roman coin present; all are Denarii except the two Asses of Claudius in Santon Downham.

<b>Hoard</b>	<b>Latest Roman coin</b>	<b>Reference</b>	<b>All coins</b>	<b>Roman</b>
Scole	Nero AD 60/61	Burnett 1986	289	87
Eriswell	Nero AD 54/5	Kent 1984	327	72
Lakenheath	Caligula AD 34	Briscoe 1964	480	67
Joist Fen	Nero AD 57/58	PdeJ 232	unclear	unclear
Santon Downham	Claudius c. AD 41/44	Evans 1869 and PdeJ 239	107	2
Forncett	Nero AD 60/61	See below	381	45
Weston Longville	M Antony 32/31 BC	PdeJ 203	c. 300	3

Table 6.16. Roman coinage in late Icenian hoards

No Roman coinage postdating AD 60/61 is present in the hoards and four hoards close with pre-coinage reform Denarii of Nero as their latest element, two of which are from AD 60/61 including Forncett, which is discussed below. This dating evidence, when considered alongside the homogenous Icenian content, indicates that the Icenian late hoards date to the period of the Boudiccan revolt, which Tacitus suggests took place late in AD 61. This timing is consistent with the Field Baulk hoard which was in a container dated from AD 60 to AD 70 (Jackson 1996).

The conclusion that the hoards relate to the Boudiccan Revolt is hardly surprising and was reached by Kent and Burnett (1984) and Chadburn (1990). It is, however, contra Creighton (1994) and other writers who have used his analysis. Creighton sought to demonstrate that there were compositional differences between the hoards implying differing dates of deposition. Creighton's findings do not accord with my results and a re-

examination of the analysis supporting Creighton's 1994 paper found it to be flawed, as discussed in 1.3 and summarised in Appendix VI.

The Forncett hoard was found in 1996/7 and comprised 336 Icenian units and 45 Roman Denarii closing with Tiberius. The hoard was excluded from my detailed analysis as I could only find photographs of 112 of the Icenian coins, although these are typical of a late hoard. I attempted to trace and photograph the Roman content of the hoard, most of which had been returned to a number of people involved in its discovery. With the help of dealers I succeeded in tracing 22 of the Denarii, and with these were seven others which had allegedly been subsequently found on the site of the hoard. These included the Denarius of Nero shown in Figure 6.10 which is dated to AD 60/61 (Sutherland 1984: 151, no. 22). It is in excellent condition, but appears to show some circulation wear on the highest point of the obverse.



Figure 6.10. Coin of Nero dated AD60/61 from Boudiccan hoard

The association of this Denarius with the hoard cannot be proven and the information was indirect. However, there was no obvious motivation for misinformation, and probably more for the association to be denied. The wear on the coin supports AD 61 as the likely date of the revolt rather than the previous year, which is sometimes suggested.

An analysis of the Roman coins from the four hoards with the most Roman content is shown in Figure 6.11. The coins are split into twenty-year periods and Imperial coinage is allocated pro-rata to the periods falling within a particular reign, Republican

coinage has been allocated to periods based upon Crawford (1974). For comparison the figure shows British finds of Republican and Julio-Claudian silver coinage from the records of the Portable Antiquities Scheme (PAS).

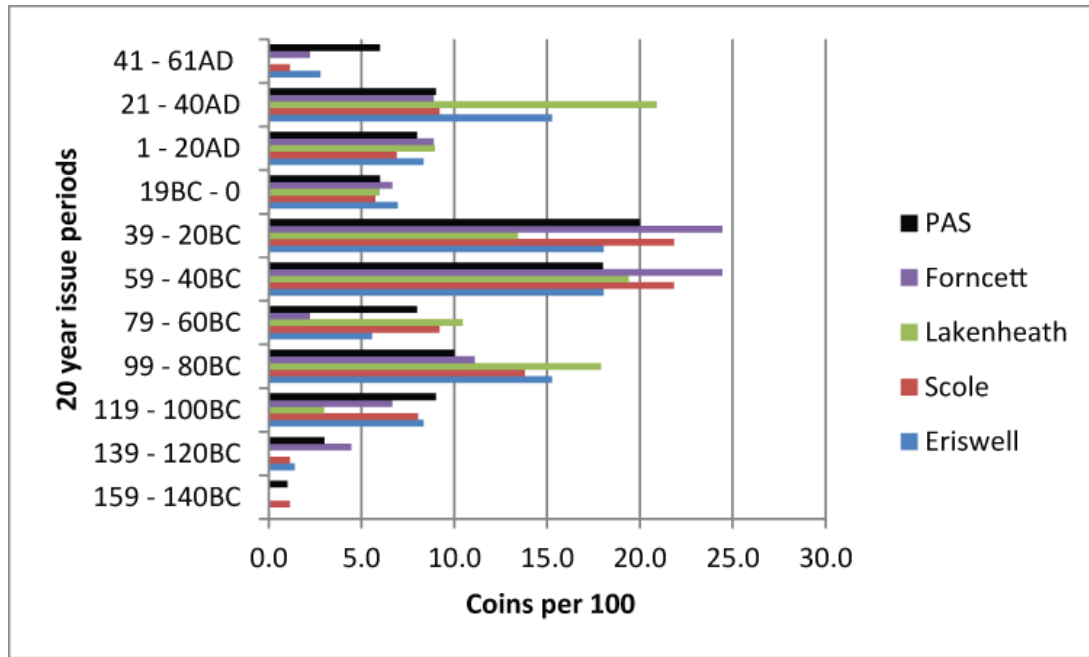


Figure 6.11. Phasing of Roman coinage in hoards and comparison to PAS data (adapted from Leins 2011: 43)

The age profile of the Roman coinage in each hoard, and PAS data for the country as a whole, is all broadly similar. The final forty years leading to the revolt produces exceptions, and it is more helpful to look at these by emperor. Table 6.17 lists the Roman Republican and Imperial coinage in the four hoards. The final column shows a notional distribution based on PAS data; it starts with the number of Republican coins in the hoards, and on the basis of this computes hypothetical numbers for each emperor based on the relevant ratios in the PAS data. Thus in the PAS data the ratio of the coins of Augustus to Republican coins is 40:186, and so on. PAS data for Nero is time-apportioned to the date of the revolt; this somewhat overstates relevant PAS finds, as Nero's early coinage is rarer than his later (Reece 2002: 15).

	<b>Forncett</b>	<b>L'heath</b>	<b>Scole</b>	<b>Eriswell</b>	<b>Total</b>	<b>Notional PAS</b>
Republican	36	41	64	45	186	186
Augustus 31 BC–AD 14	8	8	11	11	38	40
Tiberius AD 14–37	7	18	11	13	49	32
Gaius AD 37–41				1	1	4
Claudius AD 41–54				1*	1	6
Nero, from AD 54	1		1	1	3	10

Table 6.17. Roman Imperial coinage in the selected hoards (PAS data from Leins 2011). \* The Denarius of Claudius is dated to AD 50–4

The hoards contain less Roman coinage dating from the twenty years immediately prior to the revolt than the average PAS distribution of finds (Figure 6.11). This is because the hoards contain only four post-conquest coins (Table 6.17). Coins dating from the previous twenty years are present in greater numbers than would be expected based on PAS data (Figure 6.11). This is because, overall, the hoards have approximately 50% more coins of Tiberius than would be expected based on PAS data (Table 6.17), much of the excess relating to Lakenheath and Eriswell. Unfortunately coins can only show the earliest possible date of their arrival, never the latest, but this analysis implies that the last major influx of Denarii was in the years leading up to the conquest. This is not altogether surprising in view of Tacitus's remarks that the Iceni had never fought against Rome (*Annals* 12.31). The four post-conquest coins in the hoards include two from AD 60/61, the date of the revolt, a coincidence which makes it appear likely that their presence is somehow connected to the events of the uprising.

There is no evidence of hoarding or other use of Icenian coinage post-dating the revolt, with the possible exception of a 'hoard' from Mattishall (X.5.10) which closed with a single Denarius of Trajan from AD 114–7. The remaining 37 coins in the hoard are

typical of a revolt-period hoard. Unfortunately the Denarius of Trajan cannot be definitively linked to the other coins and it could be a later stray. The absence of hoard evidence does not prove that Icenian coinage ceased to be used after the revolt, as Icenian hoarding was intermittent. However, I strongly suspect that after the revolt Icenian coinage either ceased to circulate, or its use was extremely restricted.

### **6.5.3 Relative chronology**

In the absence of a die-study it is common to assess relative chronology for types in a hoard by assessing circulation wear and assuming that the most worn is the oldest; this has often been attempted for Icenian late hoards. I have examined the coins in the Lakenheath and Field Baulk hoards for this purpose, but found practically no signs of circulation wear. However many were struck from worn dies or were the result of weak strikes which left areas of the flan without an impression. The majority of the LFH, Anted, Ecen and BHC coinage in the two hoards show the residue of striking lustre (*stempelglanz*) indicating that the coins themselves were not worn. The Lakenheath coins had been lightly cleaned with a dilute acid (A. Popescu pers. comm.) but this had not removed the lustre, which could also be seen below the oxidization on a few of the coins that had remained un-cleaned.

The absence of circulation wear is supported by the following review of coins from the two longest continuous sequences of late Icenian coinage with a clearly defined chronology: Anted die-group 1 and Ecen die-group 1. I divided each die-group into three chronologically ordered sub-sets. Thus Anted 1 is known to be the earliest batch in Anted die-group 1, and Ecen 3 the last in Ecen die-group 1. Table 6.18 shows the mean weight for all known late hoard coins within each sequence, coins weighing less than a gram were excluded, as they are likely to be damaged.

<b>Sub-set</b>	<b>Dies used as basis of sub-set</b>	<b>Number of coins in late hoards</b>	<b>Average weight g</b>
Anted 1	A&B	60	1.197
Anted 2	C–F	121	1.201
Anted 3	H–L	199	1.190
Ecen 1	A–F	147	1.225
Ecen 2	G–M	256	1.211
Ecen 3	N–R	313	1.229

Table 6.18. Average weight of coin sequences from the late hoards

The analysis implies that the earliest coins in these sequences had not suffered greater circulation wear than later coins. This evidence and the presence of striking lustre indicate that the late types included within the Boudican revolt hoards have not been subjected to coin circulation in any contemporary sense of the word.

In view of these results I decided to assess whether the hoard coins were obviously less worn than casual losses. During the course of the die-study I had realised that circulation wear was not commonly seen, so I decided to examine for wear as many specimens of coins, thought to be casual losses, as were readily available from private collections. I examined approximately 250 such specimens and found no examples showing obvious circulation wear. Previous reports about Icenian coinage, particularly from hoards, often report wear from usage. This study has found that such reports usually relate to die wear.

Despite the lack of circulation wear the hoards provide an invaluable resource for assessing the relative chronology of much of the Icenian coinage using CPD or CPRD calculations. These statistics are discussed in Appendix XII and work upon the reasonable, although not infallible, assumption that the content of a hoard is biased towards the most ‘recently’ minted coinage, which should thus have the highest CPD and CPRD numbers in

the hoard. The unusual combination of hoards which postdate production, and the definitive relative chronology for several types of coinage provided by the die-study, enables hypothetical and actual chronologies to be compared. Thus there is an opportunity to test the effectiveness of CPD and CPRD statistics in relation to these hoards.

Three sequences with clear internal relative chronology were chosen for examination: the two used in Table 6.18 above and Ece B die-group 1. The large LFH die-group 19 was not chosen, as its internal chronology is not clear. Coins from the Bowl hoard were excluded as the known sample may be biased.

<b>Sub-set</b>	<b>Dies used as basis of sub-set</b>	<b>Coins in late hoards</b>	<b>Obverse dies</b>	<b>Reverse dies</b>	<b>CPD</b>	<b>CPRD</b>
Anted 1	A & B	46	2	6.5	10.8	7.1
Anted 2	C–F	93	4	7	16.9	13.3
Anted 3	H–L	119	4	12.5	14.4	9.5
Ecen 1	A–F	105	6	12.5	11.4	8.4
Ecen 2	G–M	188	6	10.5	22.8	17.9
Ecen 3	N–R	188	5	8	28.9	23.5
EceB 1	A–C	55	3	6	12.2	9.2
EceB 2	D & E	112	2	8	22.4	14.0

Table 6.19. Statistics in respect of chronological sub-sets of Units

Table 6.19 shows that CPD and CPRD are accurate indicators of relative chronology, as in all three examples the dies known to be the earliest have the lowest number of coins per die in the hoards. In the Ecen sequence there is an average of 8.4 examples of each early die, this increases to an average of 23.5 examples of each of the final dies in the sequence. A potential anomaly in the table is that there are fewer examples per die for the final batch of Anted Units than there are for the middle batch. This is because several of the last Anted reverse dies are rare, dies 21, 22, 25 and 26 being

known from a total of only 18 examples. Production of die-group 1 of the Anted Unit probably ceased before these final dies had been used at normal production levels.

It is harder to prove that the CPD and CPRD calculations give such an accurate indication of relative chronology when comparing different types of Unit. One indication that they are reliable for this purpose is the similarity between the results for the earlier dies of both Anted and Ecen. I noted this in early attempts at these calculations, prior to which I had assumed that Anted pre-dated Ecen. The accuracy of the calculations became clear when I subsequently discovered two die links between Anted and Ecen. These are discussed in 3.4 and prove parallel production of the central sections of the two die-groups.

A number of important conclusions can be drawn from Table 6.19 in light of the known chronology of dies for both Anted and Ecen and the Anted/Ecen die links:

- CPD and CPRD statistics provide a good indication of relative chronology, not just within a type, but also between similar types.
- The way that the results vary significantly in accordance with proven chronological sequences implies that the types tested were produced steadily over an extended period. If they had been produced in a short burst of activity there would have been little difference between the relative presence of early and late dies in each sequence.
- The results imply that coinage gradually entered a revolving pool of coinage and that the late hoards are made up of coinage extracted from that pool at a single point in time, although such a pool of coinage does not have to have been coinage in general circulation.
- The results are not consistent with the hoards being composed of large batches of coinage production periodically withheld from general circulation.

In such a case there would be large numbers of coins of some of the earlier dies.

Whilst the above analysis suggests that CPD and CPRD give a reliable indication of relative chronology, they need to be treated with caution. There is a risk of distortion as the amount of coinage which a die can produce varies considerably. Some obverse dies continued to be used despite severe damage and a few until they were almost uniface. Distortion can also be caused by differing patterns of production, with some types, such as Ece A, being minted in a single sequence, probably from a single site, and others, such as LFH, having multiple die-groups, probably representing production from many different sites. In the latter case dies are less likely to be used to the maximum extent, and thus their average output per die is likely to be lower than for types produced at a single site. Such distortion can be eradicated, to some extent, by comparing major die-groups of types, rather than types as a whole.

Table 6.20 shows CPD and CPRD statistics for the main types of Unit found in the late hoards. In theory those with the highest results are likely to have been minted the closest to the date of deposition of the hoards. If there are die-groups within a type comprising at least 100 known coins, these are also shown, in addition to the type as a whole. Below the table are noted examples of unusually high die-usage, which elevate CPD and CPRD results.

Type	Die-group	Total dies	CPD	CPRD
Ecen	1	48	19.9 (11.4–28.9)	15.4 (8.4–23.5)
	2	9	20.9	15.7
	3	7	21.1	18.5
	4	6	21.7	13.0
	All	84	19.5	14.9
Ece B	1	19	17.5 (12.2–22.4)	11.9 (9.2–14.0)
	2	5	29.6	24.7
	All	29	19.0	13.1
Aesv/Saenv	All	5	23.2	14.5
Ece A	All	18	21.0	17.2
LFH	5	16	5.9	5.4
	19	32	10.8	10.8
	All	209	5.2	4.8
	All	209	5.2	4.8
Anted	1	37	13.9 (10.8–14.4)	9.9 (7.1–13.3)
	2	3	35.3	26.5
	6	12	16.2	32.3
	All	77	14.7	11.8
Canv Dvro	All	4	5.0	3.3
BHC	All	141	1.4	1.0
EPH(B)	All	33	1.2	1.0
BHB(A)	All	24	1.0	1.5
BHB	All	46	1.1	0.8
EPH(A)	All	89	0.1	0.1
STU	All	26	0.2	0.1

Table 6.20. CPD and CPRD of the major types of Units in the late hoards. High usage per obverse die – Aesv/Saenv. High usage per die generally – Ece B die-group 2, Anted die-group 2. High usage per reverse die – Anted die-group 6, BHB(A)

The relative chronologies implied by Table 6.20 are as expected for most types. Ecen, Ece A and Ece B are shown to be very late, Canv Dvro and BHC earlier and EPH(A) and the Saham Toney Unit (STU) are two of the earliest types to appear in the hoards. I believe that the LFH type continued later than is suggested by the statistics, which are depressed by the more dispersed organisation of production within Mint B. LFH was a large complicated type which was struck using more dies than any other Icenian type, and probably produced over a longer period than other late types.

The Aesv and Saenv coinage has usually been thought to postdate Ece B, and to be one of the final Icenian issues (Hobbs 1996: 30; Van Arsdell 1989: 211–2). The CPD and CPRD statistics are ambiguous, suggesting that they postdate die-group 1 of Ece B, but pre-date die-group 2, although the latter may be distorted by high die usage. A further review of these Mint C types shows that, pro-rata to coins in the late hoards, casual losses were higher for Aesv and Saenv than for Ece B. This implies that Aesv and Saenv may have had a longer period of circulation than Ece B. On the basis that circulation stopped after the revolt, Aesv and Saenv are thus earlier than Ece B. Such a scenario, or possibly parallel production, is supported by my discovery that the obverse die used to strike all known Aesv and Saenv Units was used in a worn state to strike an Ece B Unit (Figure 3.63).

Table 6.21 is an indicative chronology of the later Icenian Issues which is largely based on the analysis in Table 6.20. There is a cluster of parallel late Issues with the Boar-Horse and the uninscribed Pattern Horse Issues being earlier.

Possible dating	Phase	Mint A		Mint B	Mint C	Other
		EBH		EPH(A)		
AD 5– AD 20	3	BHB			LFH	EPH(B)
		BHC				
AD 20– AD 43/60	4	Anted	Ecen	Aesv/Saenv and EceB		EceA

Table 6.21. Indicative chronology of Issues during the final periods of Icenian coinage

## 6.6 Cessation of Icenian minting

Section 6.5 demonstrates that the late hoards were deposited at the time of the Boudiccan Revolt but leaves open the question of when the production of Icenian coinage ceased. There are two finds which provide clues, an Icenian Unit in the Hallaton hoards from Leicestershire and another Unit from a closed context at Fison Way in Thetford. These are discussed below together with a review of relevant data from the revolt-period hoards.

### 6.6.1 The Hallaton hoards

Multiple deposits of mainly Corieltavian coinage were found from 2001 onwards at Hallaton in Leicestershire (Score 2011) one of which, hoard 75, contained an Icenian Ece A Unit (Figure 6.12).



Figure 6.12. The Hallaton Ece A from dies D:5

The Unit was in a ‘closed’ context in the Helmet deposit, two hoards which were found with a Roman cavalry helmet. It was struck from very worn and damaged dies from the middle of the Ece A sequence. The coin itself looks fresh, and shows no obvious signs of circulation wear. Similar examples occur in all of the well-recorded late Icenian hoards. The measures of relative chronology shown in Table 6.20 indicate that Ece A is one of the final Icenian coinages.

The Hallaton coin hoards fall into three groups: the ditch deposits, the helmet deposit and the entranceway deposits, and there is disagreement between Cottam (2006) and Leins (2007; 2011) as to their relative chronology. However both agree that the latest hoards were deposited prior to the arrival of the Romans in the area.

## Chapter 6. Deposition, including hoards

It is clear that the Corieltavian content of the helmet hoards closed prior to the entranceway deposits, as they do not contain the final types of the Corieltavi which are present, and often plentiful, in the entranceway deposits. These final Corieltavian types which are not present in the helmet hoards include Latison (or Tatisom) and Iisvprsv (Leins 2007: appendix 1; Cottam 2006: fig. 2). The later Avn Cost 'issues' 4 and 5 are also present in many of the entranceway deposits, yet absent from the helmet deposits which cease at issue 3. There are no published die studies of these coinages, but it is clear from my brief review of Latison that it was a substantial coinage; I noted 12 obverse dies from a sample of 29 coins.

Like Icenian hoards, those from Hallaton also contain Roman coinage, the latest of which is dated to AD 41/42. The few Roman Imperial coins in the entranceway and helmet deposits are listed in Table 6.22. They accord with the likelihood that the helmet deposits closed before the entranceway hoards.

		<b>Entranceway hoards</b>	<b>Helmet deposits</b>
Augustus	27 BC – AD 14	1	7
Tiberius	AD 14–37	3	4
Gaius		-	-
Claudius	AD 41/42	1	-

Table 6.22. Imperial Roman coinage from secure contexts at Hallaton (SS 36)

The above analysis implies that the helmet deposits were closed some time, probably a few years, prior to the conquest of the Corieltavi. Precise dates for the local conquest are unknown, but it can be assumed to be within a few years of AD 43. The Ece A Unit in hoard 75 must have been minted prior to this date, thus Ece A is likely to have been in production in the period prior to the conquest in East Anglia.

### **6.6.2 Fison Way, Thetford**

Excavations at Fison Way in Thetford (Gregory 1991) recovered an Ecen Unit in a stratified deposit, as well as pellet moulds (4.7.1). Fison Way is a complex rectangular site which the excavators saw, at least in the last two of the three phases of its development, as likely to be an Icenian tribal centre largely related to ceremonial or religious practices. The excavators believed that the final demolition of the site took place in the aftermath of the Boudiccan revolt (Gregory 1991: 190). The site was then abandoned for some 200 years. They suggest that phases II and III were compressed into a relatively short period, phase II probably starting in the AD 40's or 50's and phase III abruptly ending with the revolt.

The Ecen Unit was recovered from a grave in enclosure 25 with Early Roman pottery, a sling shot and a fragment of Puddingstone quern. The Unit is relatively early in the Ecen sequence, from obverse die G. The presence of the early Roman pottery in the grave (Gregory 1991: site reference 3097) provided the best dating evidence to place enclosure 25 in phase II. The pellet moulds were found with other metal working debris around enclosure 23, some 95% of the moulds in a ditch forming a side of the enclosure. Enclosure 23 is dated to phase II of the site, based upon the presence of early Roman ceramics in the fill of its features.

The location of the pellet moulds was thought to provide evidence that the production of Icenian coinage continued after the conquest into the period of the client kingdoms (Gregory 1991: 196), but this conclusion seems somewhat tenuous. If the excavators are correct in attributing the abandonment of the site to the aftermath of the revolt, and grave 3097 to the penultimate phase of occupation, then it appears likely that the stratified Ecen Unit was produced some years before the revolt, but does not date it more precisely.

### 6.6.3 Summary, the cessation of minting

The Icenian revolt-period hoards have features which suggest that they were taken from a steadily revolving pool of coinage, which had been produced in an orderly way over an extended period. Hallaton provides important evidence because its hoards contained a late Icenian Unit, an Ece A, sealed in a pre-conquest deposit. Fison Way is less definitive, but yielded an Ecen Unit from a context which appears to have been sealed some years prior to the revolt.

Thus the dating evidence for the cessation of production is somewhat ambiguous. One of the final types, Ece A, was being produced pre-conquest, but the late hoards, deposited at least two decades later, have features of being extracted from a revolving pool of coinage. It is conceivable that production ceased at the date of the conquest in about AD 43 and that the hoards represent a pool of money that had been last enhanced by new production some 18 years previously. This seems unlikely, given that the hoards clearly reflect the internal chronology of later types of Unit (Table 6.19). I think that a more likely scenario is that Icenian coinage production continued after the conquest in a steady orderly way, and that there was no major surge in activity related to the revolt. This would explain the 'normal' profile of the late hoards.

If the production of Icenian coinage continued with little interruption after the Roman conquest and then ceased to be used after the Boudiccan revolt, this would account for the presence in the late hoards of certain die-groups of late Units which are extremely rare, if not unknown, as provenanced casual finds. These may be from the final batches of production before the revolt, which never entered general circulation to any significant degree. The best example is die-group 22 of the LFH Issue with 44 examples known from the late hoards and only a single provenanced non-hoard example; there are also a few small LFH die-groups with no non-hoard provenances.

### **6.7 Other later hoards**

In 2002 the Alife Scavo sub-type of the late local Ale Sca Unit was first seen (3.7). It seems likely that all, or almost all, of the 14 known coins emanate from a single hoard. I have been told by two dealers that the coins were found near to Reepham in Norfolk. The single possible exception is allegedly from Watton.

Icenian and Roman coins have been found at Joist Fen from the 1950's onwards (X.5.8). Most have the features of being from a revolt-period hoard, but there are severe doubts about whether the finds come from a single deposit. They are particularly important because they include 11 of the rare late local EsvPrasto Units (3.7.6). An EsvPrasto Unit was allegedly found attached to a Roman Denarius, which indicates that they may well have formed part of a revolt-period hoard with other Icenian coinage.

### **6.8 Hoarding relative to chronology and minting of coinage**

It became apparent during this study that Icenian hoards of coinage frequently close at similar points in the cycle of coinage and that these correlate to the transition from one coinage type to another. I have tried to illustrate this schematically in Figure 6.13 which shows the production and hoarding of Staters. The various types are shown in chronological order from left to right; in the horizontal width allocated to each type I have attempted to reflect the number of dies used for each type. In the case of the JB Stater there were several mints issuing in parallel, so the width in that case reflects the largest mint. Each hoard is represented by a coin and is placed approximately where it closes in the chronological sequence of dies. The three hoards numbered in red consist of five or fewer coins, thus the estimated timing of their closure is likely to be less precise.

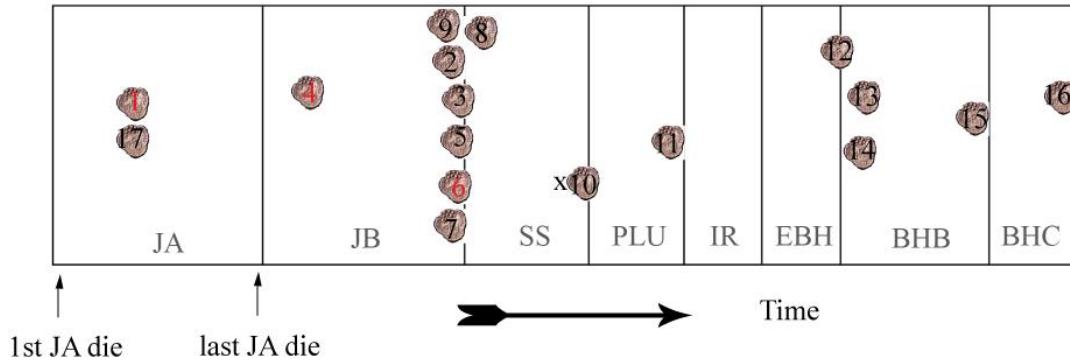


Figure 6.13. Stater hoard ‘closing’ dies plotted against type and die chronology. The key to the hoards in the table are as follows: 1 Heacham II, 2 Ashby St Mary, 3 Lochdales, 4 Beccles, 5 Brettenham, 6 Hoard D, 7 Hunstanton II, 8 Heacham, 9 Shernborne B, 10 Shernborne A, 11 Runhall, 12 Hoard A, 13 Freckenham, 14 Wickham Market, 15 Wickham Market, 16 Little Saxham and 17 Sculthorpe

The cross to the left of hoard 10, Shernborne A, represents the first batch of coins found from this hoard. It is possible that these two batches were deposited separately. As discussed earlier in this chapter, Hunstanton II is assumed to close at the end of the early local period.

The largest incidence of Stater hoarding took place around the transition from the early local coinage to the first denominational Issue. This transition was marked by major changes in iconography from the JB Staters to the less ornate Snettisham Issue; it also saw the re-establishment of heavier, finer gold Staters after the debasement of the later JB Staters. There may have been an earlier horizon of hoarding at the end of the production of die-group 1 of the JA Stater, which was marked by a reduction in weight and probably gold content. Sculthorpe and probably Heacham II close at this point.

All hoards of denominational period gold close at, or near to, the transition from one type to another. Three hoards coincide approximately with the change from the EBH coinage to BHB. This latter change saw a significant evolution in iconography with the transition to back-to-back crescents on the gold coinages of Mint A, and probably on the coinage of the other mints at about the same time.

Hoards of silver coinage are extremely rare with the exception of those dating from the Boudiccan revolt. Figure 6.14 plots hoards of Units against chronology. On this figure it is not possible to adjust the horizontal width of each band to reflect the number of dies, as many types overlapped and even within types different die-groups were sometimes minted in parallel.

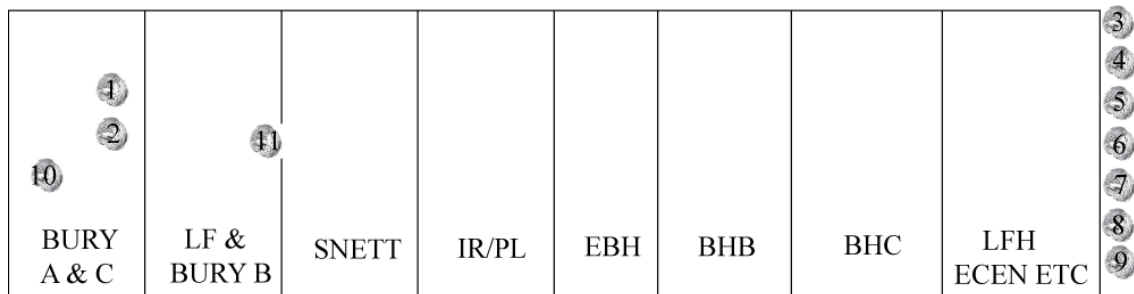


Figure 6.14. Hoards of silver Units relative to chronology. The key to the hoards in the table are as follows: 1 Barham, 2 Nettlestead, 3 Field Baulk, 4 Lakenheath, 5 Fring, 6 Honingham, 7 Eriswell, 8 Bowl Hoard and 9 Forncett St Peter, 10 Sculthorpe and 11 Hunstanton II

Figure 6.14 shows that almost all well-recorded Icenian hoards of silver coinage postdate the production of Units and there are many less well-recorded hoards that were also deposited at the same time. The only other hoarding horizon which may be revealed seems to date from late in the period when Bury A and Bury C were in production. Chronology is harder to assess in the early types, but Sculthorpe and Barham were probably deposited early and late respectively in the Bury C sequence and Nettlestead is likely to be late in Bury A. Hunstanton II included a full range of LFC Units and appears likely to have closed at the end of the type. Suspicions regarding other alleged components of the hoard are discussed in X.1.2.

Both Figure 6.13 and Figure 6.14 indicate that major episodes of hoarding were intermittent, but there have been many undeclared hoards and there are sure to be many hoards yet to be discovered. In an attempt to assess whether undeclared hoards change the picture, I have analysed coins recorded at the Celtic Coin Index without a provenance,

many of which will have emanated from undisclosed hoards. Table 6.23 examines whether undisclosed hoards affect particular periods of coinage by calculating the number of un-provenanced coins for each of the main types of Unit and dividing the result by the number of known reverse dies for the type; this eradicates distortion caused by the differing scale of the coinages.

<b>Unit</b>	<b>CPRD</b>
Bury A	4.8
Bury B	1.7
LFA	1.3
SU	1.5
Plouviez	1.1
IAU	1.9
EBH	1.7
BHB	4.3
EPH (A)	1.2
BHC	1.7
Anted	5.4
Ecen	8.1
LFH	3.0
Ece B	6.1

Table 6.23. CPRD for non-hoard Units

The table has similarities to Figure 6.14 in that the results for Bury A and most late Units have the highest CPRD; it implies that there are indeed additional undisclosed hoards that contained these types. The result for the BHB Unit is also elevated, raising the tantalising possibility that there may have been Unit hoards relating to the same period as the Wickham Market hoard (Figure 6.13). The table confirms the likely absence of hoards containing EPH(A) and BHC types. The level of un-provenanced recoveries of LFH Units per die is higher than most of the earlier coinages, but much lower than other late types. This result reflects other anomalies surrounding this coinage, and probably results from

the type starting earlier than other late Units and being produced in many small die-groups, some at low production volume.

### **6.9 Site finds compared to hoards**

Icenian coinage has been recovered from numerous locations in East Anglia, but there are few sites where there are reliable records of sufficient coins, which are not associated with hoards, to enable statistical analysis to be undertaken. Sites that meet these criteria are:

- Brettenham (53 coins) – dispersed LIA settlement site between Thetford and Brettenham (Davies 2008: 124–5).
- Saham Toney (383 coins) – a major site which has been extensively detected and field walked, with Icenian and other material found over a wide area (Brown 1986). The records include the recent addition of 101 LIA coins representing an individual detectorist’s finds from the site over an extended number of years.
- Site X (57 coins) – a site close to, and perhaps forming part of, Saham Toney. It has been searched by two detectorists on a consistent basis over at least 20 years and the coins represent all relevant recoveries of one of the two.
- Fincham (307 coins) – a prolific site actively detected over a long period, the detectorist having a good relationship with Norwich Castle Museum. It is thought by John Davies that this is a votive/ritual site (pers. comm.). Philip de Jersey found reports of a total of 343 coins (PdeJ 180), but there are no detailed records of the additional coins.

Table 6.24 shows the denominational mix of coins from the sites and from the late hoards. It reveals that the hoards and Fincham are similar and that there is similarity between the other three sites. The similarity between Fincham and the late hoards supports

the suspicion of John Davies that the Fincham recoveries are probably being made from a votive deposit.

	<b>Brettenham</b>	<b>Saham Toney</b>	<b>Site X</b>	<b>Fincham</b>	<b>Late hoards</b>
Unit	66%	75%	73%	94%	100%
Half Unit	16%	16%	22%	1%	0%
Stater	5%	4%	0%	3%	0%
Quarter	13%	4%	4%	2%	0%

Table 6.24. The Icenian denominational mix from sites and hoards

All Icenian coins found in the five late hoards which were examined in 6.5 were Units, with the single exception of an Anted Stater in Lakenheath, which also contained two Staters of Cunobelin. Table 6.24 implies that one of the functions of the Unit was associated with hoarding and ritual deposition although in earlier periods it was the Stater that was usually hoarded (6.4).

Half Units are extremely rare in the late hoards and there were none in the five well-recorded hoards studied in 6.5. They are also rare at Fincham. This contrasts with the significant proportion of recoveries they comprise from the other sites and indicates that they were not associated with a depositional or ritual function.

The differences between the ‘normal’ sites and Fincham and the late hoards is further illustrated in Figure 6.15. This plots the ratios of plated to official coins, non-Icenian bronze to Icenian Units and Half Units to Units, with the former in each case being expressed as a percentage of the latter.



Figure 6.15. Ratios which may illustrate the difference between normal and ritual deposits

The chart clearly illustrates that the presence of bronze coins and Half Units are features of 'normal' sites and not selected deposits. The bronze coins are usually from the North Thames, but include those from other regions and the continent. Bronze coinage distribution has been examined in the south-east of England by Collis, who considered it to be absent from the countryside (1971: 79), and Haselgrove (1987: 106–14) who identified a clustered pattern of distribution, close to what would be expected of 'primitive money and early cash'. This clustering in the south-east is probably similar to the presence of bronze on these coin generating sites in East Anglia, which do not appear to be primarily votive.

Figure 6.15 also implies that plated coinage is a feature of 'normal' sites and less so for the ritual site and for hoards. This result is to be expected if coinage was used for trading purposes on normal sites and the plated coins represent forgeries of official coins.

Bronze coins are the largest element of the finds of 'foreign' coinage on these Icenian sites, as can be seen from Table 6.25 which shows the numbers of non-Icenian coinage finds.

	<b>Brettenham</b>	<b>Saham Toney</b>	<b>Site X</b>	<b>Fincham</b>	<b>Late hoards</b>	<b>Total</b>
Bronze	4	8	3	1	0	16
Potin	0	3	0	0	0	3
Silver	2	8	2	2	0	14
Gold	1	3	0	3	2	9
Plated	0	4	0	0	0	4
Total	7	26	5	6	2	46

Table 6.25. Non-Icenian Iron Age coinage from selected Icenian sites

It is likely that the occurrence of bronze coinage is underestimated in the above analysis. They are usually found in poor condition and are not valuable or prized by metal detectorists; they are thus less likely to be recorded than silver or gold coins. This is illustrated in the case of Saham Toney where, through the meticulous recording of Robin Brown whilst fieldwalking and metal detecting, seven bronze Units were recorded alongside the 65 Icenian coins that he found (1986: 51–3). Icenian records for the site now total 354 but only one additional bronze Unit and three Potins have been recorded, implying that finds of bronze coinage have not been recorded.

I have shown that each of the late hoards contains a broadly similar mix of coinage (see Figure 6.8). Table 6.26 shows that, as expected, the aging of the late hoards is generally later than the site finds, although the latter also have a bias towards later material.

<b>Period</b>	<b>Bretten'm</b>	<b>Saham Toney</b>	<b>Site X</b>	<b>Fincham</b>	<b>Late hoards</b>	<b>Esty</b>	<b>Weighted</b>
Early local	8%	8%	3%	11%	0%	19%	14%
First denom	28%	11%	14%	9%	0%	11%	8%
Mid denom	16%	28%	22%	22%	5%	31%	23%
Late denom	48%	53%	61%	58%	95%	38%	55%
Total	100%	100%	100%	100%	100%	100%	100%

Table 6.26. Age profile of Units found at sites and in hoards with hypothetical profiles based on die numbers

The relative absence of early coinage is noticeable on all sites, but is not caused by less production in earlier periods. The column in red marked 'Esty' shows the hypothetical proportion of dies used in each period, based upon the Esty formulae (4.2). The actual finds from the late denominational period are much higher than if they were driven by die numbers alone, presumably because they contain dispersed hoards and coinage lost or abandoned during the turmoil of the Boudiccan revolt. The final column seeks to compensate for this and to normalise the other periods in relative terms by doubling the weighting of dies from the final period.

The results of the weighted model of distribution become much closer to the level of site finds for the final two periods, but higher than the proportion of actual finds in the early local period. In the first denominational period most sites yield more finds than is suggested by the die numbers, with Brettenham having over three times the expected level, but based on a small sample.

This 'broad brush' experiment indicates that Icenian coinage found on normal sites, which relates to the final period of coinage, is much enhanced by dispersed hoards or other losses from the revolt-period. It also indicates that finds relating to the early local period are significantly lower than would be expected if they were pro-rata to the number

of dies used. It may be that the under-representation of early coinage is because of lower production volumes per die, but I feel a more likely explanation is that it reflects a change in the nature and usage of the coinage towards the end of the early local period and the subsequent adoption of a more monetary society.

Table 6.27 examines the mix of major types of Unit found at the sites and expresses them as percentages of the total number of Units found. The table also shows the total number of Units from each site, indicating the small sample sizes for Brettenham and Site X.

	<b>Brettenham</b>	<b>Saham Toney</b>	<b>Site X</b>	<b>Fincham</b>	<b>Late Hoards</b>
BHC	0%	10%	3%	5%	3%
Anted	16%	21%	22%	19%	22%
Ecen	8%	10%	17%	20%	29%
LFH	16%	13%	14%	10%	23%
EceA	4%	3%	3%	2%	8%
Aesv/S	0%	2%	0%	0%	2%
EceB	4%	5%	6%	3%	10%
Sample	25	238	36	262	1993

Table 6.27. Types of coinage present at sites and in hoards

The mix of types does not fluctuate greatly from site to site, but the late hoards contain higher proportions of the very late types. Anted, the main die-group of which went out of production earlier than other late types, is present in site finds and hoards in similar proportions.

### **6.10 The results from the large scale mapping of the distribution of casual losses**

In this section I examine the macro-distribution of the coinage. The distribution by type and sometimes die-group were examined in Chapters 2 and 3 and revealed many examples

of sub-regional distribution for small types or die-groups of the larger types. Nonetheless most major types overall had a broadly similar pattern of distribution throughout Norfolk and North Suffolk. A consolidation of all non-hoard Icenian coinage is shown in the map in Figure 6.16, which reveals the key areas of concentration. The areas without findspots marked 'A' and 'B' on the map are large areas of modern forest in Breckland where the Forestry Commission prohibits metal detecting other than by archaeologists (pers. comm.).

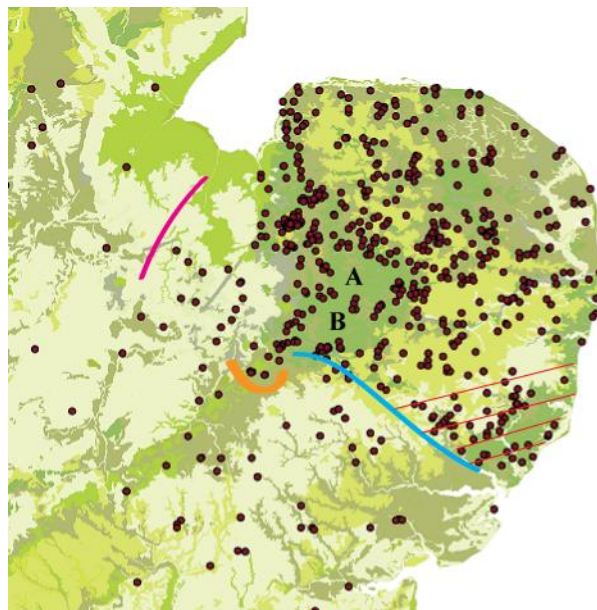


Figure 6.16. All provenanced non-hoard Icenian coin finds

The map shows Icenian coin usage throughout Norfolk, north and central Suffolk and the eastern fens. The eastern boundary is in the fens to the west of Stonea (marked by a pink line) and the southern border of the Icenian coinage appears to follow the Gipping and Lark corridor in central Suffolk (marked in blue) although with an extension along the fen edge to the south of Mildenhall (marked in orange). The valleys of the Gipping and Lark almost form a continuum and cultural differences between the north and the south of this valley continue into modern times (Williamson 2006: 28–30). As discussed below,

Leins work shows that the south-eastern corner of this area (hatched in red) is an area of overlap with North Thames coinage.

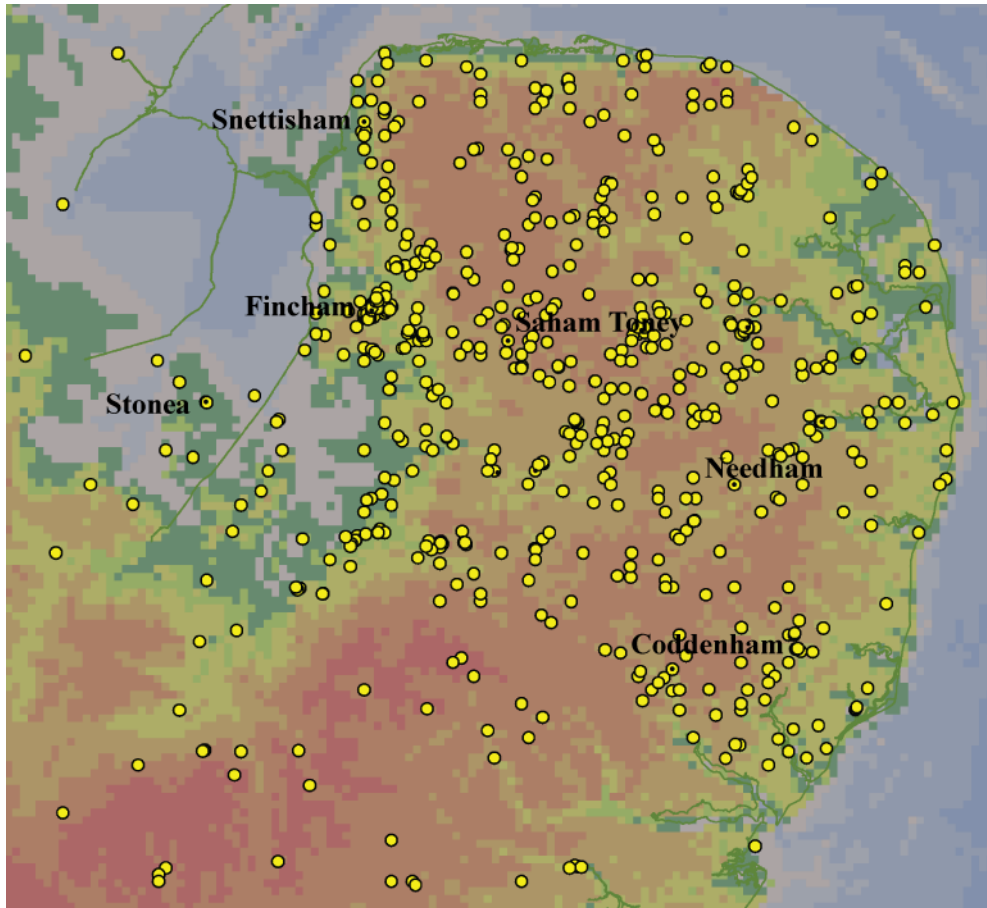


Figure 6.17. East Anglia 2000 BP / c. AD 50

Figure 6.17 overlays all coin finds and the present coastline (green line) with a map produced by Dr Fraser Sturt to show the coastline at approximately 2000 BP / c. AD 50; this map became available late in this study. Dr Sturt states that the map relates to the end of the time period he was studying and omits the build-up of peat that was taking place in the fens, to the south of the present day coastline which is shown in the top-left corner (pers. comm.). Nonetheless, the map clearly illustrates coinage distribution following the mineral soil at the fen edge and the fen-islands around and to the south of Stonea. I strongly suspect that this fen edge distribution reflects the use of solid mineral

soil for settlement by the population who were exploiting the extensive natural resources of the undrained fenland.

Leins looked at the distribution patterns of the regional coinages and produced maps showing density of distribution (2012: ch 4). Copies of his maps for the East Anglian series and those of adjacent regions are shown in Figure 6.18.

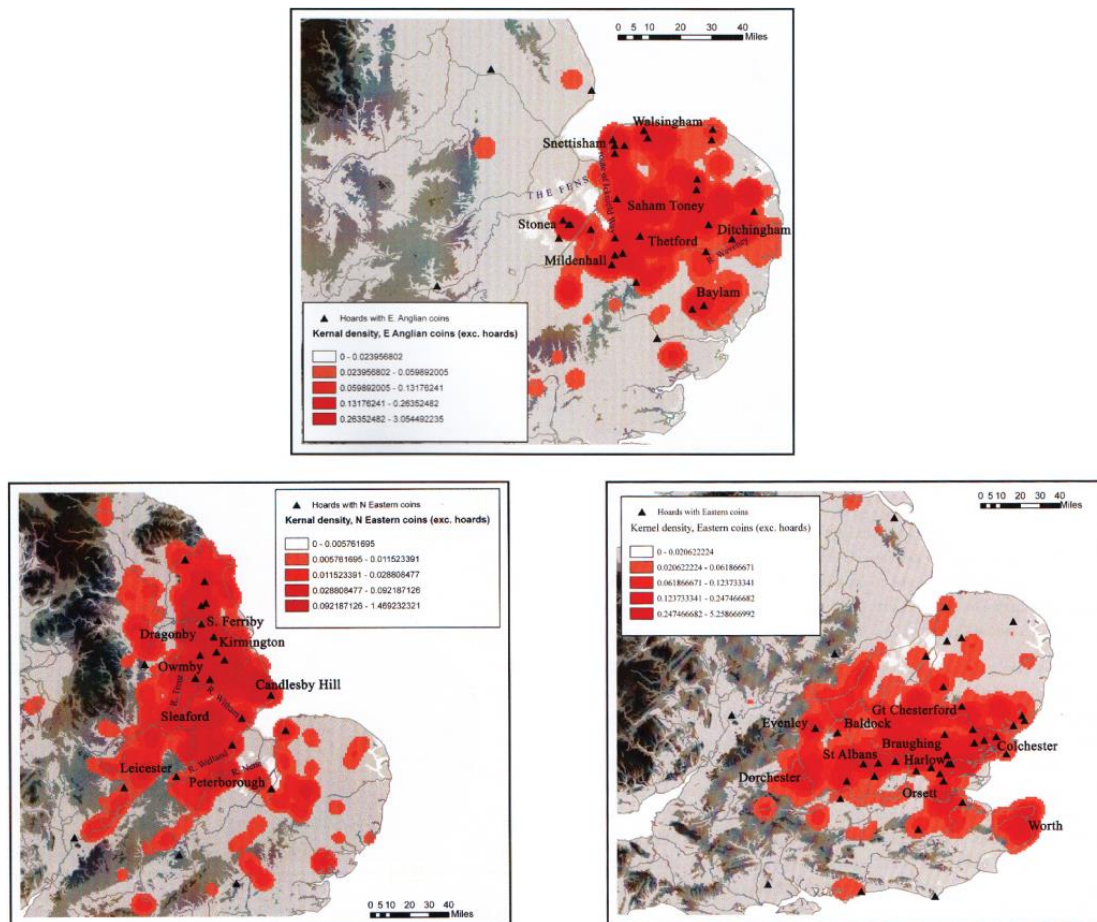


Figure 6.18. Leins distribution maps for East Anglian, North-Eastern and North Thames coinages

Leins' maps reveal that North-Eastern coinage is found in East Anglia, mainly around the fen edge, but little seemed to move in the opposite direction. The North Thames coinage is also found on the edge of the fens and its bronze is often found on Icenian sites (6.9). The maps show a defined boundary between the two coinages on the south-eastern border of East Anglia, with the exception of a significant area of cross-over

in Suffolk in the Baylham/Coddenham area (*Combretoivium*). This is revealed more clearly in Figure 6.19 where the scale of the two maps has been synchronised:

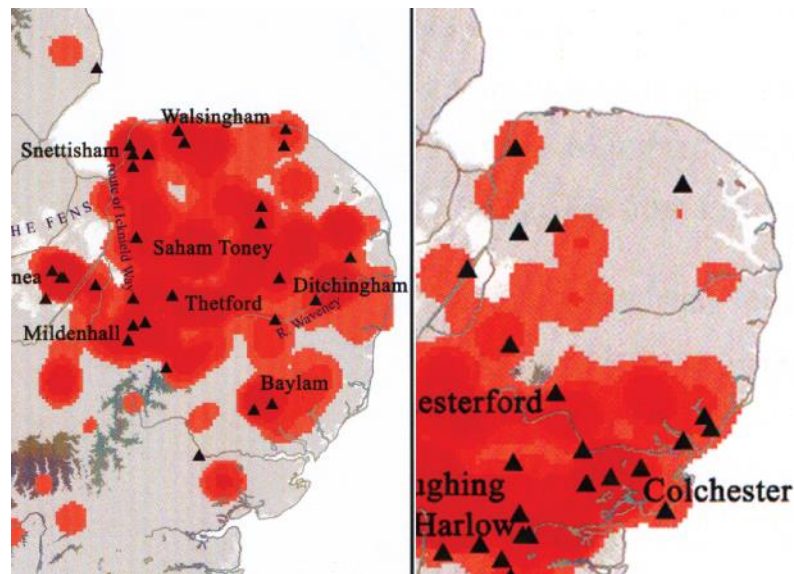


Figure 6.19. Detailed comparison of East Anglian and Eastern distribution

Leins' work suggests that this overlap took place in all periods of LIA coinage production. This is in accordance with the anecdotal comments of the county archaeologist for Suffolk who observed that, when looking at whether sites in this area were culturally Icenian or Aylesford Swarling, 'you can't draw lines on a map' (J. Plouviez pers. comm.). The penetration of North Thames and North-Eastern coinage into the west of the region and the Saham Toney area are interesting but do not disturb the overwhelming dominance of Icenian coinage in these areas. The area around Baylham appears to be different, and neither North Thames nor Icenian coinage appears to have clear dominance. It is possible that the area was occupied by a social grouping with strong links to both regions, and it would be beneficial to carry out further research into North Thames coinage and compare data with that arising from the present thesis.

The two maps below compare the distribution of the early silver Units, Bury A, B and C, to that of the final types, Ecen, Anted and LFH.

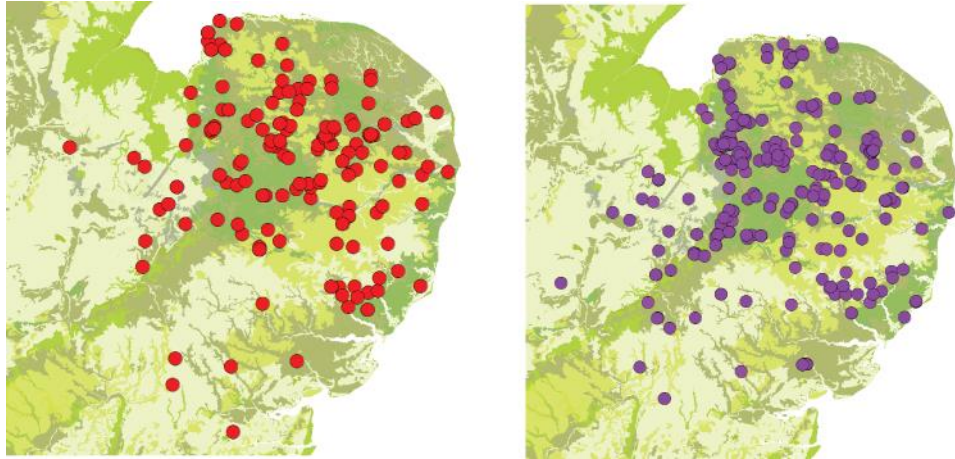


Figure 6.20. Comparison between Bury Units (left) and Ecen, Anted and LFH Units (right)

The maps reveal that there were no major changes in the pattern of distribution of silver coinage during the course of its hundred years or so of production. At all times there was a strong distribution around Breckland in the south-west of the region, in Suffolk, to the south and south-east of Coddendam, and along the fen edge south from Snettisham to Breckland, although finds here become much denser in the final period of coin production.

In all periods gold coinages appear to have a different distribution profile to silver. Gold is not concentrated on the fen edge, but is more generally spread over Norfolk, the Waveney valley and north-west Suffolk. There is a proportionately more gold found in eastern and north-eastern Norfolk than silver, but the reverse is the case in mid-Suffolk. This pattern is clear in the finds of the first denominational coinages (Snettisham to EBH) shown in Figure 6.21.

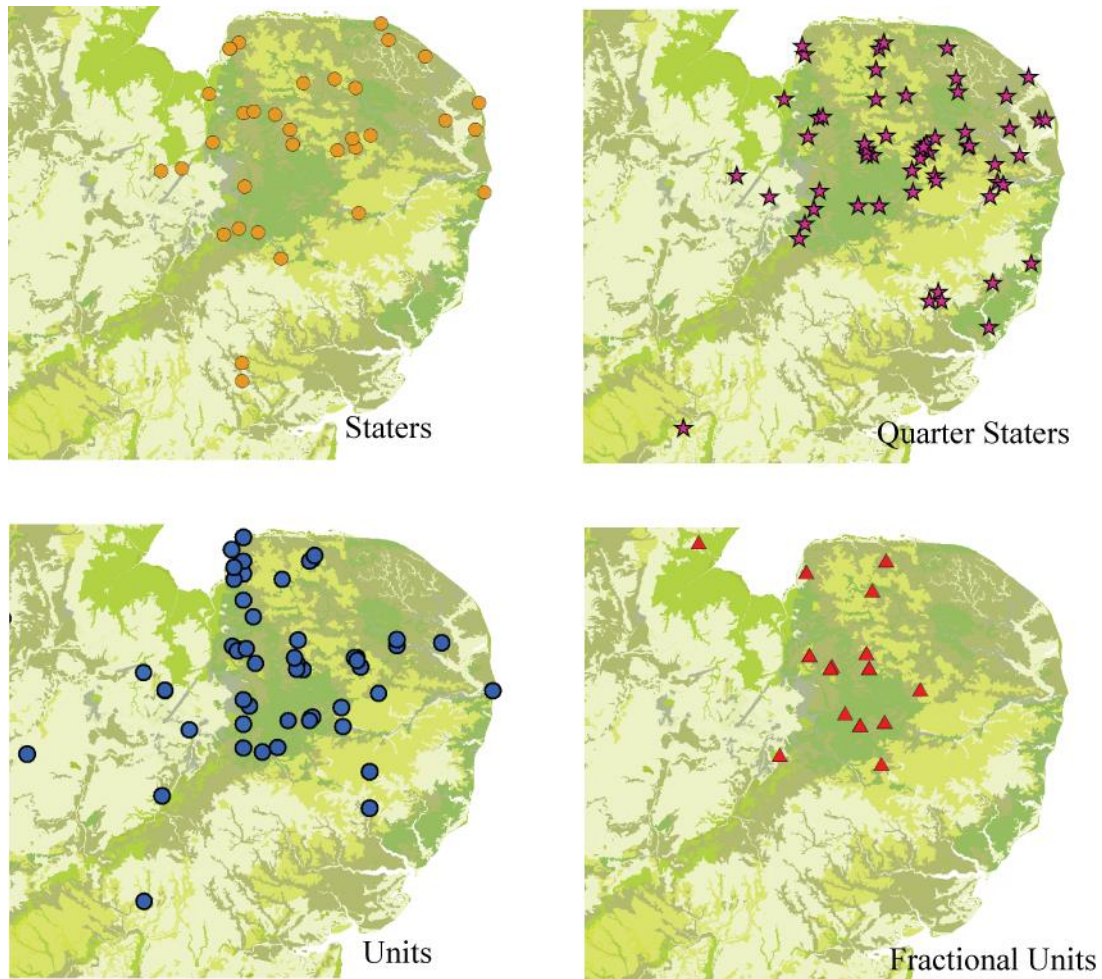


Figure 6.21. Distribution in the first denominational period from Mint group A

Although there is a consistent overall difference between silver and gold, greater variation can often be seen between specific denominations. Examples include the Snettisham Issue where the Quarter is focussed to the east of the Stater and Unit (Figure 3.13) and the BHB Issue where the differences are greatest between the Half Unit and the Quarter Stater (Figure 3.24).

In later Issues, as gold ceased to be used to any significant extent, Units became more widely dispersed, but Half Unit distribution was still restricted as shown in Figure 6.22.

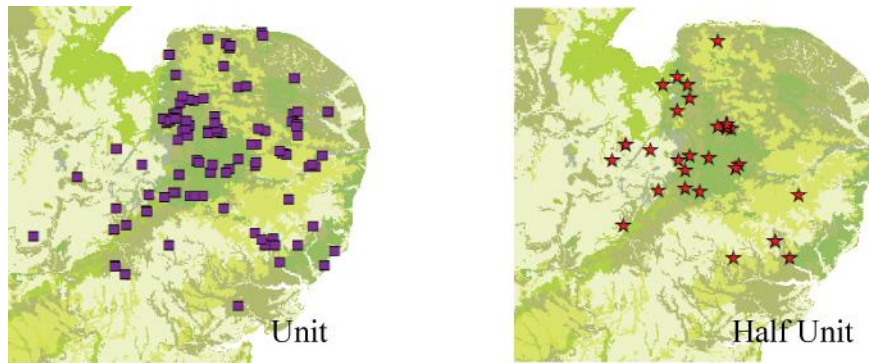


Figure 6.22. Distribution of the Ecen Issue

The differing distribution of LIA gold and silver coinages was noted by Leins for several British Issues, including the Dubunnic coinage of Eiv (2012: 167–8). Haselgrove noted similar differences in the pattern of distribution of south-eastern coinage of different metals. He found gold to be more evenly distributed and bronze clustered, with silver between the two (1987: 66–8, 106–14).

It is clear that different metals and probably different denominations had differing distributions, even if they were produced at the same site. Haselgrove saw the clustering of bronze as evidence of an early market use for the low value coinages. In an analysis that doesn't necessarily contradict Haselgrove, Leins speculated that such differences may relate to different mechanisms through which gold and silver travelled and different relationships between issuers and recipients (2012: 169). My findings for East Anglia are similar to those of Haselgrove and Leins and indicate to me that lower denominations predominantly had a local usage, whereas gold was much more widespread.

### **6.11 The location of coinage within the landscape**

As discussed in Chapter 1, this thesis has not included a study of the location of coinage finds within the landscape. Hutcheson examined the location of LIA coinage hoards as part of her study of metalwork in Norfolk which also included torcs and horse equipment (2004). She concluded that the deposition of hoards in the landscape was an ongoing potentially votive practice (2004: 95) and that there were a range of places in the

landscape that were suitable for deposition. Preferred places may have changed with time. The earlier coinage hoards appeared to be in more remote sites but the later revolt hoards were more frequently found in proximity to other LIA material and settlement. Her work revealed no clear preferred type of location, many hoards were close to water, others were on high-spots and a few elsewhere. A few were close to known routeways, but none of the hoards that she examined were close to earlier monuments in the landscape (Hutcheson 2004: 49–59). Fraser Hunter also found that hoards were deposited in a variety of site types in his study of LIA hoarding in northern Britain and Scotland (1997).

Chadburn re-examined the distribution of LIA hoards in the entire region (2006). She noted that most hoards were within a kilometre or two of major rivers and others close to minor rivers. However she also noted that many hoards were buried relatively near to settlements which in turn were, unsurprisingly, close to rivers (Chadburn 2006: 330–58). She observed that few hoards were found on land over 50m above sea level or were truly coastal (2006: 339–40).

## **6.12 Summary**

The following section summarises the evidence from this chapter which helps to address the question ‘What is Icenian coinage?’. This evidence will be considered alongside that arising from other aspects of the study in the final chapter.

The finds from Ken Hill, Snettisham and nearby Shernborne, appear to comprise a number of separate deposits. Some of these were already known as hoards but other likely groupings have been identified in this thesis. It is clear that Snettisham was a special and important site during the LIA. Periodic hoarding on Ken Hill was a feature which continued from the torcs and metalwork of the pre-coinage era through to the Boudiccan revolt. It appears that the Icenian coinage deposits found at Shernborne have similar

features to those from Ken Hill, but the site lacks evidence from earlier periods of coinage. A feature of both sites is the scarcity of pre-conquest Roman coinage.

Much of the chapter has been devoted to an examination of coin hoards including those found at the Snettisham sites. I have found that hoards of Icenian coinage are formulaic, most hoards according with the following rules:

- Non-local content is unusual in gold hoards
- Plated coinage is rare
- They are biased towards the most recently minted material
- Silver was rarely hoarded except in the early local period and at the Boudiccan revolt
- Non-Icenian LIA silver coinage is absent from the revolt-period silver hoards, but Roman coinage is often present
- Gold hoards are composed of only Staters and silver hoards of only Units
- Hoards which contain Icenian coinage exclude jewellery and similar valuables
- Icenian coinage in hoards does not have circulation wear.

The few hoards that are different include the poorly recorded Hunstanton II and Shernborne A, both from the Snettisham area, and a very early hoard from Sculthorpe which contained both silver and gold coinage. It is also possible that the vast Bowl Hoard contained gold and non-Icenian coinage, although statistically it appears to have been dominated by late Icenian Units (X1.2).

My ability to examine hoards in conjunction with the die-study has resulted in the unexpected finding that hoarding was intermittent. Not only that, but it usually coincided with a change from one coinage Issue to another. I also found that the largest episodes of hoarding coincided with the most radical changes in coinage: the replacement of the early local types of Stater by the first denominational coinage and the more widespread introduction of the back-to-back crescent motif. Thus it seems likely that the

circumstances that brought about the change of coinage type also caused the hoards to be deposited.

The late hoards of Icenian silver have been examined in detail. I have found that the well-known hoards of late Icenian silver coinage either postdate coinage production, or mark the point at which it ceased. Roman coinage, which is present in a number of hoards, has provided evidence that the late hoards were deposited at the Boudiccan Revolt.

I have found evidence that some late types of Unit, or their die-groups, had predominantly sub-regional distribution patterns. These patterns are not reflected in the late hoards which appear to have broadly the same mix of Icenian content irrespective of where they are found.

The desire for homogeneity in the late hoards may have caused the exclusion of types of Unit, such as Ali Sca and EsvPrasto, which had a lower target weight than most late Units. Both of these types were probably produced in the two decades before the conquest and, unless deliberately excluded, would have been expected to occur in limited numbers in the hoards.

Roman Republican coinage was also excluded until the Boudiccan revolt, despite its probable role as the raw material for the production of early silver (4.4.2). The uniformity of Icenian coinage in hoards appears to differ from the practise in some other regions; the Hallaton Hoards included both Units and Half Units in an overall ratio of approximately 2:1.

I have tried to find archaeological evidence which indicates when minting of Icenian coinage ceased, but I have found little which is definitive. The best evidence was provided by a Hallaton hoard which showed that Ece A was being produced before the conquest. I have inferred from this evidence, and the mix of the late hoards, that Icenian coinage probably continued seamlessly after the conquest until the revolt. The revolt-

period hoards have provided much evidence about the dating and organisation of the mid- and later coinages.

I have reviewed finds from a small number of sites where there have been multiple finds of Icenian coinage. The sites fall into two types, those where finds of Half Units, plated coinage and non-Icenian bronze are scarce and those where their numbers are high relative to finds of Icenian Units. The likely ritual sites of Ken Hill, Sernborne and Fincham fall into the former category and Saham Toney and others into the latter. These coinage types are largely absent in hoards, with the exception of the plated coinage in the unusual hoard Hunstanton II.

A review of large-scale distribution using the work of Ian Leins shows there is generally more penetration of adjacent coinages into East Anglia than vice versa. My own research indicates that, at least in part, this may be caused by the use of North Thames bronze coinage on Icenian sites. The area of distribution of Icenian coinage does not appear to change during the hundred years or of its production.

Different denominations of Icenian coinage have differing patterns of distribution with Half Units less dispersed than Units and both Staters and Quarter Staters being the most dispersed of all. This is likely to be related to the different uses of the differing denominations.

I have not carried out a study of the location of finds within the landscape but other research has found hoards to be located in a variety of locations. Proximity to water is a feature of many, but not all finds.

### **6.13 Conclusions**

In order to make sense of coinage finds I have analysed coins found in multi-coin hoards separately from those found individually or scattered across a location, which I have loosely called casual losses. The division between these two categories is arbitrary as

some casual losses are likely to be the remnants of dispersed hoards and a single isolated coin find could be the equivalent of a hoard, but for one coin.

Despite these problems, the division has generally worked well in practice. The analysis of multi-coin hoards has generated much information, including the key revelation that hoarding was an intermittent, not a continuous, practice. I have also found that hoards are carefully selected and exclude types of coin that commonly occur as casual losses.

The analysis of casual losses has revealed the sub-regional focus of many types or die-groups of coinage. I have found that the sites thought most likely to be ritual in nature generate similar types of coins to hoards. Other sites yield large numbers of the types of coins which are largely excluded from hoards. This implies that hoards are votive in nature and conversely that many coins found as casual losses are probably not votive deposits.

In analysing hoards I have found that the closure of hoards often coincides with a change of coinage type. This could imply that such hoards are simply the disposal of a redundant medium. I do not believe that this is the case as all of the hoarded coins contain gold or silver and often earlier finer examples, and many hoards also contain a few coins struck from the early dies of the next Issue (Table 6.7), which are clearly not redundant.

Another possible explanation for the link between hoards and new coinage types is that all Stater types were produced in a short burst of activity, followed by an extended gap before the next type was produced. In such circumstances most hoards would then be deposited in the gap between types. This is not the case as hoards frequently include very early dies of the new type, or omit the last few dies of the old type. This implies that there was a gradual transition between Issues. The analysis of the BHB Stater content of the Dallinghoo hoard, and late Units in the revolt hoards, show coinage production was gradual and not in single bursts of activity.

A question commonly asked about hoards is whether they represent an exceptional period of deposition or an exceptional period of failure to recover. It is clearly impossible to know what was in the ground, and taken out again, in ancient times. What is clear is that the hoards were carefully selected for deposition and those that remain were those deposited at a time of transition in the coinage. It is conceivable that there were many other hoards deposited at other times and later removed, with those remaining being left because of the traumas which also caused the change of coinage type. I think that this scenario is most unlikely, but it would not invalidate the conclusions that can be drawn from the hoards.

Some unusual features of the coinage need to be taken into account in the conclusions. Firstly, circulation wear is hard to find on any Icenian coinage, unlike the Roman coins found in the late hoards which are often much worn. This is despite the Icenian coinage in most hoards being biased towards the most recently minted coinage, implying that it comes from a revolving pool. It seems that Icenian coinage was not commonly transported/used in ways that would cause significant abrasion. Secondly it is not immediately apparent why Roman silver coinage was thought suitable for inclusion in the revolt hoards, when other valuables were not, and Roman coinage is not usually found in earlier votive contexts. Finally it is noteworthy that early local period coinage constitutes a markedly lower proportion of Units found on the sites examined than would be expected based on the number of dies used in their manufacture (6.9).



## **Chapter 7 Conclusions**

In this final chapter I briefly review some of the perceived features of the organisational structure of LIA society generally and then specifically in East Anglia. I look at how the perception of ancient economies has been changing and how views about the use of LIA coinage became established following the debates of the 1970's. I then look at more recent developments in thinking about the use of ancient coinage and ideas about how coinage entered circulation.

I then summarise the key factual findings of the thesis before an initial consideration of the main topic of the thesis, 'what is Icenian coinage?'. I address whether the coinage was produced episodically before considering its likely impact upon short-term exchange cycles and long-term belief systems. I comment upon the question of who issued the coinage and endeavour to make some observations on both likely organisational structures in LIA East Anglia and possible linkages between the coinage and historical events.

After my conclusion I reflect on aspects of the study and in particular upon the relationship between the Iceni and Rome.

### **7.1 Late Iron Age Society in Britain**

The Late Iron Age was a period of considerable change with the introduction of coinage across much of England, the adoption of wheel-made pottery, the use of Roman prestige goods in the south east of England and the growth of Oppida in the same area. There is often perceived to have been a move towards larger, more archaeologically visible, regional groupings and the emergence of new aristocratic elites.

For much of the first half of the last century the underlying cultural change which had brought about these developments was attributed to successive invasions from the

continent, a hypothesis which started with the work of A.J Evans on the Aylesford cemetery (1890). The invasion hypothesis faced a growing challenge in the late 1950's and the 1960's with matters being brought to a head with an article in *Antiquity* in 1966 by Graham Clark. Clark argued convincingly that indigenous development accounted for much of what had previously been attributed to change as a result of invasion, and that trade may account for much intrusive 'Belgic' material.

In subsequent decades the direct or indirect influence of Rome was seen to be a key factor in the changes in the LIA, leading to the rise of paramount chiefdoms and dynasty building. Creighton (2000) postulates a very direct involvement of Rome in British affairs after the Caesarean invasions of 55 and 54 BC, and saw the Augustan imagery on southern and south-eastern British coinage as evidence of those links. Other more recent research is more sceptical about the changes in the LIA being simply attributed to Romanisation, pointing out that the adoption of new forms of material culture does not necessarily imply changes to underlying social systems (Haselgrove and Moore 2007: 9–11). The extent to which changes in LIA were uniform is also being questioned. Moore has found marked differences in material culture between contemporary communities in the same region with, for example, the adoption of wheel-thrown pottery possibly being seen to be a cultural rather than chronological phenomenon (2007: 47).

Many writers on LIA tribal society have assumed that this period saw the widespread growth of hierarchical pyramid-shaped organisational structures, typically surmounted by a king, and in much of England evidenced by coinage. Interesting alternative organisational structures have been proposed by Hill (2011) who has looked at segmentary societies which were defined in Africa in the 1940's and which largely lack central authority, with power being shared between households, clans or internal segments. Distinctions of status were of minor importance and villages ran their own

affairs, but there were relationships and mutual obligations with neighbouring villages; internal conflict was usually resolved by a group splitting.

Hill identifies many features from the MIA and LIA archaeological record which suggest that similar non-triangular organisational models may have been relevant in Britain, these include:

- The lack of settlement hierarchies
- Weak evidence for an elite
- Few luxuries
- The predominance of agriculture, even where there is some other economic specialisation
- Less evidence of martial activity than in other periods
- Emphasis on small societies with extensive social networks

Hill speculates about the possibility of Councils and Assemblies in such structures to deal with shared resources (2011: 255–7).

## **7.2 The position in East Anglia**

The form of social and political organisation within LIA East Anglia is unknown, although there are well-known Roman post-conquest references to the client king Prasutagus, whose death ultimately led to the Boudiccan revolt. Clearly the existence of a post-conquest king does not mean that a similar role existed before the conquest; such a position would have suited the Romans. If it was not there already, they may well have insisted upon its creation in order to facilitate their control of the area.

Allen noticed that each time the Icenii appeared in Roman narratives they were always referred to alongside a reference to allies or neighbours, who were either unnamed or in the case of Caesar, are now unknown: the Segontiaci, Ancalites, Bibroci and Cassi (*The Gallic War* 5.21). He related this observation to his study of the coinage and

concluded that the Iceni were the eponymous leaders of a group of associated or federated tribes (Allen 1970: 14). Based on the coinage he concluded that there were at least three component elements, or 'pagi'. He thought it likely that the pre-conquest inscribed coinage of Anted was issued by the first of the tribal chiefs to assume paramountcy over a large part of the group.

Chadburn looked at two models: the Iceni being either a single political entity with the coinage representing three mints, or a group of related tribes or sub-tribes (pagi) perhaps federated under a main tribal leader (2006: 480–2). She favoured the latter and surmised that three main later coinages each represented a pagus, and that the inscriptions, Antedi, Ece and Ecen, possibly each referred to a pagus leader.

Many writers consider British LIA coinage to be a manifestation of, and evidence for, a hierarchical form of social organisation. Creighton, for example, sees the images of horses and man on LIA British coins of precious metal as enshrining the concept of the right to rule. He perceives gold coinage in particular, as being a symbol of kingship and related to torcs (Creighton 2000: 26 and 31).

Based on my study of coinage in East Anglia I am not sure that these interpretations are correct. Before addressing this further it would be worthwhile to look briefly at the history of ancient economies and of money and to summarise the key findings of this study.

### **7.3 Ancient Economies**

Modern studies of ancient coinage have been made in the context of changing views about the nature, or even the existence of ancient economies. In the mid-20<sup>th</sup> century these were strongly influenced by the anthropological work of Malinowski (1920: 21–2), Mauss (1954) and others. These identified and discussed alternative models for economic activity

which they had found in tribal societies, such as redistribution and prestige gift exchange, rather than trade based on supply and demand driven market pricing.

Polanyi sought to examine ancient economies in the light of this emerging anthropological work and in 1957 his seminal *Trade and Market in the Early Empires* was published. This book resulted from an interdisciplinary project at Columbia University, which looked at the growth of economic institutions. It endeavoured to find a general theory of economic organisation which would apply to economies, including those where price-making markets do not hold sway. Polanyi had a very negative view about the importance of market pricing in the ancient world. Whilst he did not deny its existence, he was somewhat extreme in his opinions about the relative unimportance of trade, and of the influence of supply and demand upon pricing.

In Britain, Moses Finlay was thinking along similar lines (1985[1973]). Finlay was convinced about the absence of sophisticated economic activity in the ancient world, but on occasion his interpretation of data appears to lack commercial awareness. An example is in the second edition of his book. He identifies a situation where grain was withheld or redirected in order to force up prices and he used this to illustrate that there was no overall economic interdependence, and went on to suggest that there was no evidence that this sort of activity had a 'structural effect on grain production' (Finlay 1985: 178). Yet the example clearly illustrated supply and demand driven pricing, and the pursuit of profit by producers and shippers in the 4<sup>th</sup> century BC grain market.

In recent years there has been a move away from the views of Polanyi and Finlay with research revealing that ancient economies were active and sophisticated. Most work has been focussed on the major empires of the ancient world around the Mediterranean where, despite varying degrees of central power and control, there was extensive trade and traders operated commercially (for example Scheidel *et al.* 2007).

There is a growing appreciation of the sheer scale of long distance trade and interconnectivity, and an understanding that the sea probably provided a greater aid to such trade than did land routes. It is of relevance to East Anglia, and its long coastline, that in the Mediterranean, islands are now perceived to have been centres of communication, rather than being isolated by their geography (Horden and Purcell 2000).

There is also a growing understanding of the importance of money in some of the ancient economies. There is more awareness of the development of banking in Greece, and possibly Assyria, in the 1<sup>st</sup> millennium BC, which is indicative of the importance of trade and the desire to generate profit. It is clear that, for the major empires, this trade was facilitated by the use of some form of ‘money’ and by banking at varying levels of sophistication.

In Babylon the money was not coin but silver, which was accurately measured and subject to quality controls (Van der Spek 2007; Bedford 2007). Family firms which were involved in trade developed into quasi banks, making short-term loans of silver. The bible makes a number of references to secured lending (e.g. *Deuteronomy 24:6; Leviticus 25*). Van der Spek considers the Babylonians to be familiar with paper or clay money, and cites an example whereby the holder was able to exchange a document for a defined sum on presentation and also refers to two other examples (2007: 418). These may be exceptional, but they clearly suggest a high level of financial sophistication in this large trading empire, which included the Phoenician coastal cities.

It is clear that by the 4<sup>th</sup> century BC Athens had also developed sophisticated banking organisations. Cohen (1992) identified how the bankers (*‘trapezai’*) extended their roles far beyond money-changing to play a key role in the economy and to facilitate trade. He argued that by allowing depositors to use their deposits to support credit guarantees, they effectively increased the money supply without the need for additional silver coinage. Gabrielsen went even further, suggesting a more complex and broader

market for the provision of credit that included wealthy individuals, certain sanctuaries and cities themselves (2005: 156–7).

Not surprisingly it appears that late Republican Rome also had a developed credit market with private entrepreneurs (*publicani*) having close links to the state and becoming the equivalent of banks (Harris 2007: 520). Loans were extremely common and ownership of debt a standard part of the assets of the wealthy; there is also evidence suggesting the use of paper to settle very large transactions and the trading of debt (Harris 2007: 521–2; Morley 2007: 587).

The growing body of evidence about the complexity and sophistication of ancient economies includes nothing that can be directly related to East Anglia. A study of ancient imports and exports from the region is beyond the scope of this thesis, but East Anglia has a long coastline broken by a number of rivers. This lends itself to trade; the land was ideal for farming and clearly iron and copper were needed. That precious metals were desirable is seen in the torc deposits at Snettisham, and the probable use of Roman Republican Denarii as a raw material for Icenian coinage. Although the inhabitants do not appear to have sought the luxury Roman goods which have left their traces in the archaeological record of the south-east, it is logical to assume that East Anglia was an active participant in ancient trading patterns.

#### **7.4 The use of coinage in LIA Britain**

To ask what Iron Age coinage would have seemed nonsensical to many earlier numismatists. They considered that it was simply money used in a modern sense for market transactions (see Rodwell 1976). They saw its introduction into Britain as being related to invasions from the continent, following the work of Brooke (1933) and Allen (1960).

In the 1970's LIA coinage studies in Britain were dramatically impacted by changes which had been taking place in archaeological thinking: the alternative models for economic activity such as redistribution and gift exchange found in tribal societies, the doubts arising from the work of Finley and Polanyi about the existence of ancient economies and Clark's challenge to the invasion hypothesis. These parallel developments were introduced to British Iron Age numismatics by the young archaeologist John Collis who started the process in 1971 with a short paper that suggested:

- Numismatists had tried too hard to match the introduction of coinage to invasions or settlement, and the spread of later coinages to political or military activity. He outlined an alternative scenario where coinage simply spread by familiarity from one 'system' to another.
- Minting does not have to have been issued by a central territorially-based power structure, there being a number of scenarios for the minting of coinage including 'uncontrolled' minting by individuals or small groups in a loose organisational structure.
- Strongly influenced by Polanyi he suggested that, with the possible exception of bronze, coinage was not money in a conventional sense.

This paper led to strong exchanges with Rodwell who defended the linkage of coinage to invasions and historical events and coin usage to market type transactions. Rodwell was opposed by Collis (1981), Hodder (1979) and Haselgrove, the latter being particularly influential with his 1979 paper quoting extensively from Polanyi and arguing that silver and gold coinage in IA Britain is consistent with payments and value storage in a pre-existing prestige sphere. However silver losses on peripheral coin using area settlement sites, and the use of potin and bronze in the south-east, suggested to Haselgrove that low value coinages were used to buy subsistence goods, but without there being a fully commercial economy (1979: 205–6).

After this extended debate it became unfashionable to view Iron Age coinage as money in the modern sense of the word, or to seek to tie issues of LIA coinage to historical events. These changing perspectives somewhat overshadowed the work of Scheers whose 1972 paper linked GB E Staters and other contemporary coinages to the Gallic Wars.

In recent years there have been challenges to the post 1970's orthodoxies, an example being a recent work by Roymans (2012) on continental hoards and the Roman conquest in which he pleads for open-mindedness in relation to historical association. Sills has also argued strongly in support of Scheers work on Gallic War coinages (2003: 330–3) pointing out the absence of later GB E classes from British hoards, and hypothesising that this absence is associated with Caesar's invasion of Britain.

Since the arguments of the 1970's there has been no radical change in thinking about British Iron Age coinage. The invasion theories remain unfashionable and there remain strong differences of opinion about whether early coinage production or deposition can be related to historical events. In relation to East Anglian coinage, in addition to uncertainty about the purpose of the coinage, these differences have impacted views about the likely timing of the start of coinage and the likelihood of there being a direct relationship between the late hoards of Icenian coins and the Boudiccan revolt.

Because of the doubts which have been engendered about the presence or otherwise of an ancient economy, and the anthropological study of societies with complex cultures which often involve gift exchange in one form or another, it has generally been thought unlikely that the use of coinage by the tribal societies of Western Europe in the LIA would have been related to a market driven economy. I am not convinced by these arguments.

### **7.5 Developments in thinking about the early use of coinage**

Outside of LIA British numismatics there has been ongoing research which needs to be taken into account in assessing the purpose of Icenian coinage.

The first coins seem likely to have been used in Lydia in the 7<sup>th</sup> century BC and soon spread to the Greek islands and then the mainland. Seaford (2004) argues that the introduction of coinage into Greece led to major changes in society:

- Commodities and assets started to be reckoned, and thought of, in units of account based on the coins.
- It became possible for skilled individuals to accumulate large quantities of money through trade irrespective of birth.
- It began to appear that everything could be bought or sold or at least ascribed a value.
- The gathering of money becoming an objective in itself.

Seaford argues that the introduction of money brought about a move away from the importance of gift, and the old redistributive society changed to a model much more focussed around the individual and the pursuit of money. He suggests that the introduction of money and the consequent ability to attribute a 'number' to practically everything brought about massive change in Greek society including its literature and philosophy.

Bloch and Parry (1989) have carried out a study about how various societies deal with their encounter with, in the most part, state-issued currencies. They stress the importance of understanding the culture of each society in order to understand how money is viewed, but show that the systems all make ideological space in which individual acquisition is legitimate or even laudable (Bloch and Parry 1989: 26). They found that the coinage was generally used within what they term the short-term exchange cycle, which is concerned with the arena of individual competition without necessarily producing radical changes to the long-term social or cosmic order. Bloch and Parry suggest that the idea of a

‘great divide’ between monetary and pre-monetary society is a form of historical falsification (1989: 29).

Bloch and Parry’s work challenges the notion that non-monetary societies have to have an embedded economic structure which discountenances the individual pursuit of self-gain and accords primacy to collective goals over those of the individual (1989: 25). The work of Seaford and Bloch and Parry are reconcilable as, in the latter’s terms, Seaford has noted that the use of coinage in the short-term exchange cycle has brought about change in the operation of the long-term cycle, examples of which are also given by Bloch and Parry. Also the studies by Bloch and Parry concern societies which are encountering coinage produced elsewhere, whereas by the time coinage is being produced within a society some changes to the long-term cycle are perhaps inevitable.

Many studies about the purpose of ancient coinage focus on how it entered circulation. A common view is that the major reason for the production of ancient coinage was to meet the expenses of the state and in particular its military commitments (see for instance Crawford 1970; Callataÿ 2000). Howgego (1990) concluded that it was unsatisfactory to link all minting to the expenses of the state and suggested other reasons for minting such as the maintenance of good quality coinage in circulation, facilitation of external trade and the generation of profit driven by the difference between face value and metal content. Although not always explicit in these studies of Greek or Roman coinage, the authors appear to assume that the coinage will subsequently be used for economic purposes.

Nash concluded that ‘Celtic’ familiarity with coinage derived from the payment of gold coins to Celtic mercenaries in Macedon, Syracuse and elsewhere (1987: 16–7). These were the prototypes for the continental Celtic gold coinages; she assumed that the use of coinage spread amongst the Celts primarily in the context of their own military relationships (Nash 1987: 16). Nash observed that these peoples only struck their own

coinage when deprived of the supply of gold as payment for mercenaries (1987: 17). Sills went further in concluding that ‘Celtic gold coins were not produced continuously as a consequence of broad social developments, but episodically, in response to particular events’ (2003: 3). Wigg-Wolf (2011) follows Nash and Sills in seeing the continental Celtic coinage as deriving from mercenary pay, and sees its production in the sphere of the martial and political interests of an elite. He believes that the later appearance of individual names on the coinage confirmed that individual members of elites were responsible for the issue of coinage, rather than tribes (2011: 304–5).

As I will discuss later, I find that the ideas of Bloch and Parry and Seaford resonate with my findings in respect of East Anglian coinage. Bloch and Parry’s findings are relevant to the period before indigenous production, when most societies have the capability to absorb the impact of externally generated coinage without destroying the most important long-term elements of their culture. The work of Seaford applies to the period after local production starts, when production will affect day-to-day living, and potentially start to change longer-term cycles and ways of operating; I believe that some of these changes can be seen in East Anglia, including the increasing evidence for a market economy. However, even with increasing monetisation, not all belief systems or aspects of culture are changed. Bloch and Parry point this out in respect of our own society, where money is still not supposed to be able to buy a marriage partner, sexual favours and political and academic honours (1989: 13).

I doubt that most Icenian coinage was produced primarily for military purposes, and do not believe that most was produced episodically. Later in this chapter I will explore alternative scenarios, including some of those suggested by Howgego.

## **7.6 Summary of the present study**

Pre-Icenian coinage in East Anglia is briefly discussed below, followed by an overview of the organisation and chronology of Icenian coinage. I then summarise the results of the study of Icenian coinage production, imagery and deposition.

## **7.7 Pre-Icenian coinage in the region and an overview of Icenian coinage**

Before production of coinage started in East Anglia it is clear that at least some elements of East Anglian society were familiar with coinage. Gallo-Belgic coinage provided the prototypes for most early Icenian types. The only Gallo-Belgic type to have been found in quantity in East Anglia are the first three classes of the GB E Stater and its related Quarter Stater, which are thought to have been produced during the Gallic Wars (2.2.1). Their arrival is likely to be related to the Gallic War and may have been received in compensation for the region's support for the Gallo-Belgic tribes. Caesar alludes to Britain supplying both manpower and more general supplies (*The Gallic War* 4.20). In common with elsewhere in England, the later classes of GB E are not found in East Anglia. The first Icenian coinage may have been struck using this coinage as a raw material, although some doubts remain due to differences in tin content, based on a single test (4.4.1).

British Potins which predate both GB E and local coinage production have been found in the region (2.2.2). Unfortunately little is known about the use of this early coinage and whilst it adds to the general picture of familiarity with coinage, it has little in common with Icenian coinage, and seems unlikely to have been a major factor in the commencement of local production.

Roman Republican coinage is also found in East Anglia and was the prototype for one of the earliest silver Units, Bury C. Republican coinage is a major component of many Boudiccan revolt-period hoards but there are no early hoards of this coinage. It has been found on LIA sites in the region, but there is no certainty that such finds entered the region

prior to the conquest. Pre-conquest Roman coinage is not usually found in Icenian ritual contexts and it seems likely that such exclusion is deliberate. Despite the lack of direct evidence I strongly suspect that this coinage was familiar in East Anglia prior to the conquest and it seems likely to have been a major part of the raw material for much early Icenian silver coinage (4.4.2).

The first coinage produced specifically for East Anglia seems likely to have been the Ingoldisthorpe Stater and Quarter Stater. These were probably minted in the North Thames area alongside, and sharing the obverse dies with, the Westerham Stater which circulated in that area. This coinage was probably minted using recycled GB E Staters and was superseded by the first coinage produced in East Anglia, the British JA, followed shortly thereafter by the earliest silver coinages.

I have termed the first forty years or so of Icenian coinage ‘the early local period’. Coinage was generally more local than in later periods and the various types were not uniform in their production and distribution characteristics; different coinages were produced in parallel. Some silver types, such as LFB, were struck in low volumes and generally used very locally. Others, and the gold, were larger issues with a wider distribution. Some of the larger coinages were predominantly struck at a single location but others were struck at several locations.

The final years of the early local period, which probably ended during the decade 20 BC to 10 BC, appears to have been a period of major change. It seems likely that gold had become very scarce, as increasing amounts of copper were being added to the JB Staters until the gold content had been reduced from some 30% to as little as 10%. Towards the end of this period is the largest Icenian incidence of hoarding of gold coinage (6.4.2).

The first denominational period followed; this is marked by the introduction of a full denominational coinage of gold and silver, the Snettisham Issue. The gold content was

re-instated almost to the levels of JA Staters (Figure 4.7). Staters never again became heavily debased. The designs of the old gold coinage were abandoned but the silver coinage shows continuity of design from earlier types, although with a lower target weight and smaller flans.

At first there were at most two main mints in operation, Mint A producing the Snettisham and subsequent Issues and probably Mint C producing the Saham Toney Issue (3.2). There appears to have been a period of stability for possibly 20 years or so after the start of denominational coinage. Adjustments to the weight of the Staters coincided with new Issues of coinage (4.3.1).

In the first decade of the new millennium there was another period of change in the region which was also marked by the hoarding of Staters and by the transition from EBH to the BHB Issues, the first coinage of what I have termed the mid-denominational period (6.4.4). This transition saw the introduction onto the Staters of Mint A of the back-to-back crescents symbol. The symbol was probably introduced onto the coinage of Mints A and C simultaneously but Mint B may have started operating somewhat earlier; it used the symbol on all denominations. The symbol became the major feature of most subsequent Icenian coinages with the major exception of the final Mint B Issue, LFH.

The introduction of back-to-back crescents reveals a strong link to North Thames coinage, where its longstanding use significantly predated its widespread adoption in East Anglian (5.5). The symbol was used on all Stater dies of the BHB coinage and on the rare closing dies of the previous Stater, EBH. One of the North Thames inscribed coinages bearing back-to-back crescents is that of Dubnovellaunus, and a further connection to Dubnovellaunus is seen on the Quarter Stater of the BHB Issue (3.4.5). This is the only Icenian coinage to use a trefoil symbol on its reverse, a symbol also used on coinage of Dubnovellaunus, and a rare obverse die is identical to one of Dubnovellaunus. The coinage of Cunobelin which superseded Dubnovellaunus rarely used the crescents symbol.

After the transition from EBH to BHB, imagery became much more tightly controlled with little variation in the designs used on the dies of a type, and less hidden imagery, giving the appearance of ‘mass production’ (5.10). During the mid-denominational period there was little hoarding and some large Issues of coinage, such as EPH(A) and BHC, have low survival rates (3.5.1 and III.21–4). Coinage was once again issued from multiple locations and individual types were generally much larger than in early local period, although a few smaller local types were also minted. After the BHB Issue the supply of gold for coinage dried up, although more silver was minted it did not compensate for the decline in gold (4.6) and the silver coinage itself became highly debased (4.4.2).

The final denominational period saw the introduction of Inscriptions on the output of two of the three mints alongside the continued use of the back-to-back crescent symbol; the large LFH Issue of Units bore neither an inscription nor back-to-back crescents. It appears most likely that the production of Icenian coinage continued after the Roman conquest and up until the revolt in AD 60/61 (6.6.3).

### **7.8 Icenian coinage production**

The minting of Icenian coinage was very tightly controlled. Considerable importance was attached to precision in achieving a target weight and much care was taken over the precious metal content of the coinage.

The best example of weight control encountered during the study was in respect of a die-linked sequence of LFH Units from the late hoards where 77% of the 314 known coins fall within a weight range of 0.1g (4.3.4). Gold was also manufactured to fine weight tolerances, the best example of a Stater being BHC where over 70% of the sample of 34 fell within a weight range of 0.09g (4.3.1).

Metal content was carefully controlled but it was clearly difficult to achieve precise alloy mixes. Test results of the gold coinage show a reasonable consistency of gold content, with standard deviations usually ranging from 5% to 10% of average gold content; there is greater variation in the copper and silver but modern testing cannot accurately measure the composition of these two elements in an alloy (Table 4.17). Early silver coinage had a consistently high silver content, but from the mid-denominational period it became debased and the precise mix is not measurable. It is most likely that the silver content was reduced to approximately 50% (4.4.2).

There is an exception to the strict control of the weight and metal content of Icenian coinage; both were lost for the final productions of the JB Stater at the end of the early local period. Control was re-established with the Snettisham Stater, the first denominational Issue. This reinstated the gold content almost to the level of the earlier JA Staters. It subsequently stayed reasonably constant, although the copper content gradually increased at the expense of silver, giving the coinage a redder appearance (4.4.1).

From the earliest types, Icenian coinage was produced with two denominations each of both gold and silver, and with a clearly defined weight ratio between the types in each metal. There were no stylistic links between gold and silver until the denominational coinage, but there was a relationship between the weight of a Stater and that of a Unit (Table 4.24). There may also have been a relationship between the precious metal content of the gold and silver coinage, but if so, it was not maintained during the production of the JB Stater and the final debased silver coinages (Table 4.24).

When coinage started in East Anglia, gold coinage was initially produced at one or possibly two locations; the number of locations grew with the JB Stater (2.4). Silver coinage is likely to have started with two or three sites producing coins, but within a few years several locations were producing coinage often in small volume (2.5). With the advent of the first denominational coinage the number of sites producing coinage probably

dropped and most of the production was by a single mint. Ultimately three main mints were each producing coinage (3.2) and one, Mint A, was minting the Anted and Ecen types in parallel, although Anted may have ceased before Ecen (3.4, 3.4.7 and 3.4.8). Throughout all periods it seems likely that small volumes of sub-regional types continued to be produced (3.7).

The three main mints appear to have minted coinage from more than one site, but each used their standard imagery for each location. These conclusions are based on distribution analysis; there have been only three reliable finds of East Anglian LIA mint debris, all in the form of pellet moulds (4.7). The lack of finds probably reflects the lack of excavation of major LIA sites in East Anglia. A few additional sites have yielded unstruck gold blanks but these are less indicative of minting activity; they are impossible to date and probably represented portable value, notwithstanding the absence of striking (4.7.1).

An assessment of the precious metal used in producing the coinage highlighted a dramatic decline in the use of gold during the mid- and later denominational periods, and although silver usage grew it did not make up for the decline in gold. Despite uncertainties about the exact duration of the different periods it is clear that the 'value' of coinage production declined significantly in last decades of coinage production, a decline that probably started in the first decade of the first millennium (4.5–6).

Throughout the entire period of Icenian coinage production, and for all denominations, the coinage was subject to forgery by the production of plated copies. The level of copying increased during the mid- and final denominational periods, after the introduction of back-to-back crescents, probably c. AD 5 (4.8). All known plated coinage appears designed to deceive (4.8) with the possible exception of some silver-plated copies of the JB Stater, probably all from a single hoard, which may have been produced for votive purposes (6.4.3).

### **7.9 Icenian coinage imagery and inscriptions**

The earliest Icenian silver coinages of the early local period used predominantly Gallo-Belgic and Roman types as prototypes but changed the ‘artistic language’ to conform to a local aesthetic (5.4.1). Many writers have seen this change as a process of simplification and degeneration; this is wrong and the process is one of increasing complexity and interest, usually by adding hidden imagery similar to that used on other artefacts. Considerable skill and effort was involved in creating these hidden images that could only be seen with effort, possibly only by the initiated.

The Units of this period always carried a face on the obverse and a horse on the reverse but, subject to these constraints, there was regular die to die variation within each type. Two factors point to the involvement of mobile moneyers in die and coinage production:

- Some of the dies appear to be produced by the same hand as those seen in other regions, and carry some common iconography (5.8).
- Some of the most complex and sophisticated silver types, such as Bury D and Bury F, were produced on a very small scale and sub-regionally (Figures 5.12 and 5.16; Table 2.6).

The obverses of the early gold coinages are closely related to their Gallo-Belgic prototypes. The reverses have no obvious prototype. They appear to depict a complex narrative, involving what is thought to be a wolf or a large dog, seen on no other coinages with the exception of a small issue of North-Eastern Units (5.3).

There are a number of features of the early coinage that may have a cosmological or religious interpretation such as the human head and eyes (5.4.1), the wolf narrative (5.3), the horse (5.4.2) and possible solar and stellar imagery (5.4.3). The human head is seen on every early Unit and Stater and, with the face, is the focus of the hidden imagery on the silver coinage. The use of the ubiquitous horse in the creation of hidden faces and

its association with astronomical imagery has potential religious connotations, whether as part of an illustration of a myth or as an object of veneration in its own right.

There was a radical change in imagery with the introduction of denominational coinage c. 15 BC. The Gallo-Belgic styled obverses and the narrative reverses of the gold coinage were abandoned, the obverses of the gold coinage became more symmetrical and the reverse dies of each denomination of an Issue were linked by the use of similar imagery. From the mid-denominational period (c. 5 AD) imagery on all dies of each type of coin were usually standardised, even when production was from multiple sites. At the same time the designs became less complex with little emphasis on hidden imagery and the back-to-back crescent motif became widely used, eventually becoming a key image on most, but not all, coinages. (5.5).

Later still, say about AD 25, script was introduced and coinages with different inscriptions and an uninscribed Issue were minted in parallel (5.7). In one case at least two types with different inscriptions, Anted and Ecen, were produced in parallel by the same mint. The later denominational Issues were often large, but there were also a number of smaller, probably local, types. One of the smaller coinages, EsvPrasto, includes a probable reference to a moneyer (5.7). Howgego speculates that the introduction of writing was a key development in adopting Roman ways of doing things including the use of coinage as money (2013: 19, 35), but in East Anglia the introduction of inscriptions does not appear to coincide with other discernible changes to the production or usage of coinage.

Alongside Units bearing back-to-back crescents on the obverse was LFH, an Issue which had a head on its obverse. Unlike the heads of the earlier periods these appear to be images of a decapitated head or a mask. The eyes appear blank, there is no neck or shoulders illustrated and a concave line links the chin to the rear of the skull on each of the 96 known obverse dies (5.4.1 and I.43–8).

The major later Icenian coinages carry none of the Augustan imagery seen on the LIA coinage of other regions (5.6). Although there are a number of different inscriptions, there are no references to kingship, with the possible exception of an isolated R shown on one die of the relatively small issue, *Ali Sca* (5.7).

It appears most likely from the sequences of coinage, the apparent parallel production from a single site and other evidence that the most common inscriptions *Anted*, *Ecen*, *Ece*, *Aesv* and *Saenv* represent names rather than places or titles.

### **7.10 The disposition of Icenian coinage**

Icenian coinage of all periods is found in a similar area of northern East Anglia; the work of Ian Leins showed there is generally more penetration of adjacent coinages into East Anglia than vice versa. Within the region the different denominations of Icenian coinage have differing patterns of distribution, Half Units are less dispersed than Units, and both Staters and Quarter Staters are the most dispersed of all (6.10).

The majority of known coins emanate from hoards but this thesis has shown that Icenian coinage was not hoarded continuously as is sometimes thought. Silver coinage only seems to have been hoarded in the early local period and at the time of the Boudiccan Revolt; even at these times the hoards do not include Half Units. Gold coinage seems to have been hoarded at, or close to, specific times which usually coincide with the transition from one Issue of coinage to another. The most active periods of hoarding of gold coinage were at the end of the early local period and at the transition between EBH and BHB, when back-to-back crescents were introduced into the coinage of Mint A. Staters were hoarded, but rarely Quarter Staters. Most hoards are predominantly composed of carefully selected genuine coins of a single denomination (6.8; Tables 6.4, 6.4.3 and 6.5.1).

The hoards relating to the revolt are relatively homogenous in their mix of Icenian coinage; they include coins from types or die-groups of types which appear to have sub-

regional distributions for casual losses (6.5.1 including Figure 6.9). This implies that the hoards may have come from some form of central pool. Some hoards contain Roman Denarii, usually the only non-Icenian coinage present. The link between hoards and the revolt has been confirmed by two of these Roman Denarii dating to AD 60/61 (6.5.2).

The Icenian Units in the hoards of the revolt-period do not have circulation wear, yet hoard content is biased towards the most recently minted coinage, as if they come from a revolving pool of coinage. Icenian gold and silver coinage is rarely seen with extreme circulation wear, unlike the Roman coins found in the hoards which are usually worn (6.5.3).

Four sites with multiple finds of Icenian coins were examined, three of which were found have a different profile to Icenian hoards in that they generate significant proportions of Half Units, plated coinage and non-Icenian bronze coins. These types of coins have a much reduced presence on three likely ritual sites, Fincham, Ken Hill and Shernborne, although early Potins occur on Ken Hill and Shernborne which are both in the Snettisham area (6.9).

Early local silver coinage is under-represented on sites, based on the number of dies used in its manufacture. Factors causing this could include lower production volumes per die, a move towards larger and more developed sites during the LIA after the production of some of the early coinages and the increasing monetary use for coinage after the introduction of denominational groupings, leading to greater casual losses (6.9).

### **7.11 What was Icenian coinage?**

I believe that this thesis has demonstrated beyond reasonable doubt that all Icenian coinage was intended to be used as money. By this I mean that it was designed to be used as a means of payment, for the storage of wealth and as a standard of value; my criteria are based on those of Haselgrove (1979: 202) which follow from the work of Polanyi. The

definition of money has proved contentious and there has been much discussion about the purpose of LIA coinages; various criteria have been described which seek to separate coinage which functioned as money from other types of coinage, assuming that the latter ever existed. The features of Icenian coinage which make it clear that it functioned as money include:

- Linked denominations initially between coins of the same metal, with links between silver and gold becoming overt at the beginning of the denominational period.
- Tightly controlled and standardised weight.
- Controlled and standardised precious metal content.
- Relatively stable imagery for each type of coin.
- Forgery of the coinage throughout its issue.

Early Icenian coinage followed the continental Gallo-Belgic coinages in seeming to lack obvious symbols of an ‘authority’ which would provide some assurance of authenticity, as is seen on Greek and Roman coinage. Researchers have seen the stamp of authenticity as being important if coinage has a fiduciary element (for example Von Reden 2002: 157–8). The consistency of the major design elements may have fulfilled this role and provided re-assurance that the object was genuine and had a specific value.

The Gallo-Belgic style of obverse on the early gold coinage may in part be an attempt to assume and replicate some of the credibility of the prototype coinage, although the Gallo-Belgic Stater most common within East Anglia, GB E, had a practically blank obverse. The wolf reverses of the gold coinage are, with the exception of a rare Corieltavian Unit, specific to East Anglia. They appear to depict a narrative and it is possible that this was something that would have had a local resonance and inspired confidence.

The major design elements of the early local period Units are a head and a horse and it is probable that one of the reasons for the ubiquity of these images is to give Units monetary credibility. The hollow star and diamond shape used on certain early local silver such as LFA and Bury B (5.4.3) may be a direct reference to the issuer of the coinage and hence his credibility. The importance attached to seemingly minor symbols on the coinage is demonstrated by the effort put into changing them on the dies of certain Bury C Units (5.4.3).

With the denominational coinage the imagery became much more stable, and consistency was introduced between gold and silver coinages. All subsequent reverses depicted a horse. The back-to-back crescents, which were increasingly used on obverses, may have provided a symbol which played some part in the generation of confidence and the assurance of authenticity. It appears that with the denominational coinages consistency and stability gradually took over from the desire for artistic creativity in the coinage (5.9–13).

Much of the later denominational coinage was inscribed thus providing an obvious potential sign of authority, although whose name is borne by the coinage is not obvious and is discussed below.

Having established that Icenian coinage was money, in the terms described, enables questions to be addressed about why the coinage was issued, who was responsible for its issuance and for consideration to be given as to the form of social organisation which prevailed in LIA East Anglia.

### **7.12 Was the coinage produced episodically for military or other events?**

Most Icenian coinage does not generally appear to have been produced in the intensive bursts of activity that would be expected if the coinage was for military purposes, or primarily produced in reaction to specific or episodic events.

By comparing hoard analysis with known chronological sequences of dies it has been possible to show that the final Icenian silver coinages were issued over an extended period, there being generally far more coins per die of the latest coins present than there were for earlier coins in the same sequence (Table 6.9). A similar analysis of the latest coinage in the large Dallinghoo hoard, the BHB Stater, showed that the hoard was biased towards the most recently minted coins and that the BHB Stater had been produced over an extended period (Table 6.11).

Most coinage appears to have been struck in an orderly way using only one obverse die at a time. There are a few examples where it appears that two or more obverse dies were being used together. The most obvious examples of this are the Early JA Staters, Bury A Units and the LFH Units from die-group 19 (I.2, I.9 and I.46). Excessive use of a single obverse die may also be indicative of intense activity, an extreme example of which is JB Stater die-group 16 (I.6).

My assessment of the evidence is that most minting was orderly and well-controlled, and the same type was often issued from more than one location. Many types of early silver were quite small and local, whilst the later coinages were generally larger, often having several die-groups being produced in parallel. At the same time there were still examples of smaller local production. The few types which appear to have been produced in a hurry are associated with actual or possible periods of hoarding activity, suggesting that some minting may be related to unusual circumstances.

### **7.13 The impact of Icenian coinage on society – short-term exchange cycles**

My interpretation of the evidence revealed by this study is that it reveals a society that had encountered coinage in various forms over an extended period and which adopted coinage in the middle of the first century BC. That coinage had a monetary role, not just as a store of value and to make payments, but either immediately or soon thereafter as a standard of

value. The evidence suggests that over the hundred years or so of coinage production, Icenian society became increasingly monetised.

Whilst it is clear that there were extensive contemporary trading networks operating across Europe in the LIA there is no clear evidence about how British tribal groups such as the Iceni were impacted. However in view of the scale of this trading, the obvious benefits from participation and the ready access to the sea and hence trade routes, it would appear unwise to assume that traders were not present, and that Icenian society was unsuitable for the early adoption of a monetary economy.

Precisely how coinage was used within short-term exchange cycles is not known, but it is clear that its role grew. Symptoms of this include denominational coinage, the standardisation of imagery, the increasing use of Half Units and the increase in plated coinage over the period of issue, as assessed by the number of plated relative to official dies (4.8). The increase in plated coinage is particularly marked for plated copies of Half Units. None are known from the early local period, but by the final period of coinage there are almost half as many plated as official dies known.

The denominations of Icenian coinage have differing patterns of distribution with Half Units less dispersed than Units and both Staters and Quarter Staters being the most dispersed of all (6.10). This suggests varying uses for the denominations, with the smallest silver being used for local transactions and gold used for larger transactions with more distant parties, which may well include uses related to longer-term belief cycles. Leins noticed a similar pattern in other regions which he thought may reflect different relationships between issuers and recipients (2012: 169).

The lack of Icenian bronze coins must have excluded coinage from very small day-to-day transactions. The smallest Icenian denomination was the silver Half Unit which had a target weight of approximately 0.6g for most of the period of minting. The LIA North Thames area had a bronze coinage with typical weights of 1 to 3g (Van Arsdell

1989). If the relative values of these metals in Rome (Sutherland 1984: 3) were to be relevant it would suggest that the smallest Icenian denomination was perhaps equivalent to approximately 13 Bronze coins of 2g. Even factoring in the later debasement of Icenian silver, the Half Unit was still equivalent to some 6 or 7 Bronze Units.

The lack of very low-value denominations implies that coinage may not have been used for very small transactions in the way that it may have been in the North Thames area. This need not infer a lack of monetization, since the monetized economy of the Middle-Ages had the silver penny as its lowest official denomination, which was frequently heavier than a Unit.

I have found hints that as the monetary economy developed, North Thames bronze coinage may have become acceptable in East Anglia. Analysis of site finds (6.9) implies that LIA bronze coinage found in East Anglia may be understated in numismatic records. Bronze coins are often worn, damaged and hard to identify and this, combined with their minimal modern commercial worth, means that they are treated with disdain, and may well be disregarded by metal detectorists. Nonetheless it is clear that bronze coinage never had the major monetary role that it seems to have had in North Thames.

Although coinage was used as money in a form of monetary economy in East Anglia it was not used in the way that we use money today, or indeed in the way that the Romans used money. Throughout this study remarkably few examples of coinage have been seen which display any significant signs of circulation wear, and the coins in the Boudiccan revolt-period hoards are clearly unworn (6.5.3). Previous reports about Icenian hoards often commented upon coinage wear, but the study has found that this usually relates to die wear.



Figure 7.1. Ecen Half Unit with ‘worn’ obverse (left)

A typical example of what is often thought to be circulation wear is illustrated above; an examination of the illustrations of all other known examples of this obverse die reveals that the flattened area on the obverse is likely to be the result of the die being worn when the coin was struck. Similar flatness is seen on strikes which pair the obverse with the reverse illustrated above and with later reverse dies. This is not seen on the 15 examples where the obverse die is paired with an earlier reverse die.

Both Roman Republican Denarii and early Gallo-Belgic gold is found in East Anglia with clear and substantial circulation wear, although it is impossible to know if this was suffered within East Anglia. Icenian coinage does not appear to have been used or transported in a way that caused it to suffer significant abrasive damage. There was clearly movement of coins, as is shown by hoard assemblages, the general spread of coins from the same dies and by the differential distribution of different denominations. The lack of wear may be due to some form of fabric or other protection afforded to coinage, or to it being rarely transported; observations by Ian Leins in respect of the many coins that he handled at the British Museum suggest that this lack of wear may be a common feature of LIA British coinage (pers. comm.).

#### **7.14 The impact of coinage on Icenian society – long-term belief systems**

There are a few clues about how coinage was used within long-term belief and social order systems and whether it brought about change in those systems. Hutcheson proposed

that the practice of burying metalwork in the ground in East Anglia was a continuous, if mutable tradition. She saw the deposition of torcs, horse equipment and coinage as part of the same practice: the material changed but the essential practice remained the same (Hutcheson 2004: 92–3). I have found that the coinage used for such deposits was carefully selected and generally did not include Half Units and plated coinage; the latter types were also largely absent from site finds from Ken Hill in Snettisham and Fincham which are thought to be areas of ritual focus. The marked contrast between such coinage and that found on more ‘normal’ sites, such as Saham Toney, strongly suggests that Hutcheson is correct and that the selected coinage was being used in the context of longer-term belief systems.

My analysis of large-scale coin hoarding in East Anglia has found that it was intermittent and that silver coinage was rarely hoarded, except at the time of the Boudican revolt. Prior to the revolt the Icenian Stater was the preferred denomination for hoards, which contained minimal amounts of any other denomination or regional coinage.

Despite the acceptability of certain Icenian coinage in votive deposits, I have found no evidence that any type of Icenian coinage was produced specifically for votive purposes. In any event it appears unlikely that a denominational coinage would have been specifically produced for such a purpose, as it would have been linked to Half Units, which are clearly excluded from any such role.

I suspect that, in the early local period, coinage did play a role within the longer-term social order, and perhaps for some types of coinage this was its most important role. The imagery or art on these coins holds clues as to what some of these roles may be.

The early types of coin, particularly those in silver, varied from die to die and were very complex, often containing many hidden images. It is possible that this coinage was used to spread a religious message and served to enhance the power and reputation of those initiates who could decipher the hidden imagery and other symbols. However I think

it unlikely that these were the primary purposes for the production of the coinage, as the use of hidden imagery is a feature of LIA art more generally. This aspect of numismatic art should be seen as part of a wider linkage between functional objects and belief systems.

The uniqueness of the early coins was enhanced by their being struck from dies much bigger than the flan; no two coins were exactly the same (1.4.1). These attributes conflict with those beneficial to coins in a market economy, where standardisation will help to make types of coinage more familiar and individual coins more acceptable.

The most complex and sophisticated types, such as Bury F, were produced from few dies and were sub-regional. Nonetheless these types had the same standard major elements of imagery as other types and their weight was similar. They were clearly designed to have a 'monetary' role in addition to any other functions. The dies for some of these coins seem likely to have been produced for local 'clients' by moneyers who operated in different regions.

The attributes of uniqueness and the small-scale production of some early types could be appropriate to a society where gift exchange is a cultural norm. This is seen in studies of the Kula ring where important shells have names and known histories (Munn 1986: 106–8). Gell's observations may also be relevant to the production of these beautiful coins which were made in limited numbers. He considered art to be an extension of a person involved in its creation and to have agency; by this he means that art is intended to help achieve the objectives of that person when it is encountered by others (Gell 1998). It is easy to see how the complex imagery on early coins could be intended to influence those who possess them, although to what end is not readily apparent. It could be simply the enhancement of the prestige of the person who arranged for the coins to be made.

Freedberg in his work on the power of images discusses the huge impact of the first printed pictures which gave wide access to hyper-realistic images for Christian meditation (1989: chapter 8). From this can be inferred the importance likely to have been attached to early Icenian coinages, these almost certainly carrying the first mass-produced images in a precious metal that had been made in East Anglia. They were able to carry much greater detail than cast objects and were likely to have been highly prized because of their imagery.

I suspect that in these early small issues of coinage we are seeing a transition in Icenian society. The concept of money, in terms of giving a number to objects, was becoming accepted, but also one could associate one's personality to objects, by way of unique designs, and use the coins in the way that prestige gifts would have been used. Some of the small-scale early types may not have been primarily intended for day-to-day commercial usage. It is easy to see how a gift of one of these early coins would have been perceived as impressive and important.

The changes to the imagery after the start of denominational coinage suggest that any such uses were becoming less important. The coins were becoming standardised with simplified imagery, moving away from the 'uniqueness' which makes them suitable to be viewed as art intended to have agency, as described by Gell. The key message that is given by the imagery on the larger Issues of denominational coinage is one of conformity; it appears that the issuers are trying to promote confidence in the coinage in an economic sense. Political and religious messages may be included, but these appear to be subsidiary to the main purpose of the coinage.

The adoption of more standardised imagery need not imply a change to underlying long-term Icenian belief systems, and I suspect that it does not, but rather that the commercial importance of the coinage becomes overwhelming. It may then have been seen as less suitable for incorporation into long-term social structures.

### **7.15 Who issued the coinage?**

In view of the introduction of script I will look first at who is likely to have been responsible for the issue of the later coinages. Clues are provided by the sequences of Anted and Ecen which were produced in parallel. The main sequences of each type are linked by two ‘mules’, implying that it is likely that they were minted in close physical proximity, but with care taken to keep production apart. Other than the inscriptions, and the immediately surrounding decorative detail, the reverses of each type look very similar and weight, metal content and obverse imagery are indistinguishable. Both types have additional die-groups of production that differ from the main die-groups in their distribution.

The importance attached to separating Anted and Ecen Units, notwithstanding the likely proximity of production, may indicate that those responsible for production did not own the product, or at least did not own both product types. This implies that minting was the provision of a service, as it probably was in the early days of Icenian coinage when travelling moneyers seem likely to have converted metal to coinage on behalf of the owner of the metal. It is possible that this early structure was the model followed throughout the entirety of the coinage.

If this is correct, who were the clients who wished silver and copper to be converted into coinage bearing the names Anted and Ecen? Both types have a broadly similar distribution, and are thus unlikely to represent the output of different sub-regional groupings or hierarchies such as pagi. Nonetheless the names carried by the otherwise almost identical coinages were clearly viewed as being extremely important.

My analysis of inscribed coinage indicates that the names carried by the major late Icenian coinages refer to people rather than places, positions or groupings. Similar conclusions were reached by Wigg-Wolf in looking at Gaulish inscribed coinage (2011: 305) who assumed that the names represented individual members of ‘Gallic elites’. There

can be little doubt that those named on the Icenian coinage considered that they belonged to an elite, but in what capacity they issued the coinage is a more challenging question. The overlapping distribution and parallel production of coinage does not suggest to me that the coinage was issued by hierarchical leaders of different factions of society. I think that the features of the coinage make it much more likely to have been issued by traders, or organisations involved in commercial activity, and that it was issued for trading purposes. This does not exclude the possibility that those named on the coinage may have had other roles within tribal society.

Howgego referred to the possibility of less centrally controlled minting in the ancient world, where precious metal objects could be freely converted to coinage as was often the case in the Middle Ages or in the Arab world (1990). I suspect that Icenian coinage is closer to this model than to centrally controlled production to meet state expenditure. However there was clearly some degree of centralised control or agreement, which ensured consistency of weight and imagery in respect of the different types of coinage minted in parallel.

If traders were to have produced some or all of the coinage, this may account for some of the LIA coinages of different regions which carry identical or very similar names. Dubunnic coinage carries the name of Anted and Eisv, the latter being very similar to the Icenian Aesv and EsvPrasto, as is the inscription Iisv Prasv seen on North-Eastern coinage. The possibility that the Dubunnic Anted may refer to a trader is countered to some extent by its additional retrograde inscription of 'RIGV' or possibly 'RICV' below Anted inscription. The suffix or prefix Ric or Rig is usually interpreted as corresponding to 'king', following Evans and others, although Evans also mentions 'powerful' as being an alternative meaning (1967: 243–5).

There are no Icenian inscriptions that clearly claims kingship, and it is uncertain whether the Dubunnic inscription does so either. The possibility that traders were

responsible for the issue of the later Icenian coinage, and that those traders were not necessarily the operators of the mints, provides potential explanations for other unusual features of the coinage. Some of these are otherwise very hard to rationalise:

- The parallel minting and overlapping distributions of differently inscribed types.
- Types being issued in more than one location, with the same iconography and inscriptions if appropriate.
- Inscribed coinage and the uninscribed LFH coinage being minted in parallel.
- Anted and Ecen Staters sharing obverse dies.
- The possible existence of supra-regional commercial mints and trading issuers of coinage may account for some of the major stylistic similarities across regions, such as the boar on Corieltavian coinage and its similarity to that on the BHB Unit.

The Early Local coinage includes a range of types with different features. Some, such as Bury B, LFC and LFA, have many features in common with the later inscribed coinages. These may well have been struck by traders for the purposes of trade whilst smaller coinages such as Bury F appear much more like prestige objects for purely local usage.

Some of the largest issues, such as the first die-group of the JA Stater and the main die-group of the Bury A Unit show signs of intense minting activity, both being issued in significant volume from a single site. These die-groups are two of the few Icenian coinages whose die chain shows signs of the intense activity described by Nash and Sills, in the context of coinage being produced in response to a crisis.

Die-group 1 of the JA Stater represents a major usage of gold which probably coincided with the Gallic Wars, from which it is thought flowed the GB E Staters which may have been its source of alloy. As this die-group was produced at approximately the

same time as the invasions of Kent it is tempting to see this, the first Icenian coinage, as an ‘emergency’ minting somehow connected to the resistance to Caesar, or to the annual tribute which he demanded of Britain after the second invasion (*The Gallic War* 5.22).

Such thinking is evocative of that which led to Collis’ assault on preconceived ideas in the 1970’s, but this particular link to invasion is not entirely speculative. In any event it seems almost certain that the actions of Caesar stopped the flow of Staters to Britain and that this is most likely to have been, in some way, a trigger for the start of local coinage production.

### **7.16 The social organisational structure of the Iceni**

John Davies, the Chief Curator for the Norfolk Museums and Archaeology Service, has observed that the Iron Age archaeological evidence of the county reveals strong sub-regional patterns which suggest social and political diversity (1999). This diversity is to some extent reflected in this thesis, which found no evidence of rigid centralised organisational structures. For the hundred years or so of coinage there were small local productions of coinage alongside larger ones which reached a much larger geographic area. Alongside this variety and apparent flexibility there were also clear signs of co-ordination such as the standardisation of weights and major elements of imagery, and the adoption of denominational coinage.

The flatter organisational structures suggested by Hill would fit well with the evidence yielded by the coinage, particularly if there had been some form of Council or Assembly. This could have dealt with strategic decisions about minting such as the weight, purity and major elements of imagery. Individual decisions about detailed design could then have been taken locally.

It is also possible that the features seen in the coinage could have arisen in a hierarchical structure which chose not to take direct responsibility for the conversion of precious metal into coinage, but established rules for ‘weights and measures’.

What is clear from the coinage is that the linkage between LIA coinage and political power or kingship, as perceived by Creighton and others, does not appear to be appropriate in LIA East Anglia.

### 7.17 Links between the coinage and historical events

Although I believe that the coinage is generally more closely related to trading than to politics, there are four points in time when more wide ranging events can be perceived in the coinage. The first is the linkage between the Gallic Wars and the start of Icenian coinage discussed above, the others being:

Approximate date	Manifestation on coinage	Hoarding horizon
15 BC	The start of denominational coinage	Yes
AD 5	Introduction of back-to-back crescents	Yes
AD 60/61	The end of coinage	Yes

Table 7.1. Points of radical change in the coinage

The end of the early local period and the start of denominational coinage c. 15 BC was clearly a period of radical change; the JB Stater had become increasingly debased and at the end of this coinage there is a major hoarding horizon. A new gold coinage was introduced with close stylistic links to that of the North Thames. These events give the impression of political pressure or change but there are no real clues as to what actually happened. It would be interesting to establish if similar changes took place in other regions or whether this was purely an East Anglian phenomenon. If more widespread it may reflect changes taking place in Gaul and the increasing influence of Rome.

The third major period of change about AD 5 provides rather more clues as to its cause. These imply a link between political change in the North Thames area and the adoption of back-to-back crescents in East Anglia. The widespread adoption of this iconography, previously more commonly used in the North Thames area, coincided with a major hoarding horizon and the introduction of BHB, a new coinage Issue. The BHB Quarter Stater has stylistic links to the coinage of Dubnovellaunus in the North Thames and Kent. Dubnovellaunus may be the 'king' recorded as Dumnobellaunus sending a supplication to Augustus (*Res Gestae* 32). In a 2005 article, De Jersey gives a summary of the latest numismatic evidence concerning Dubnovellaunus. He concludes that this name which appears on North Thames and Kentish coinage refers to the same person. De Jersey speculates that Dubnovellaunus had a short reign in the eastern part of the North Thames area, probably expanding from Kent in say 5 BC–AD 0 and conceding power to Cunobelin sometime around AD 10, perhaps the time of the approach to Augustus.

Despite the Icenian stylistic links to Dubnovellaunus there is little evidence of further change and turmoil as a result of Cunobelin assuming kingship of the entire North Thames area, and there are few elements of Icenian imagery which could be associated with him. It appears unlikely that the widespread Icenian adoption of North Thames imagery would have been undertaken lightly, but it is equally unlikely that this reflected military conquest. Dubnovellaunus's name was never inscribed on East Anglian coinage and the imagery continued in East Anglia after the succession of Cunobelin in North Thames.

The final event is the Boudiccan revolt which resulted in the deposition of numerous hoards, and brought about the end of minting and probably the cessation of the use of the coinage. Some coins deposited in AD 60/61 will be the result of individual trauma and tragedy around the revolt and its aftermath. The uniformity of the main hoards suggests to me that there is a votive element to their deposition, perhaps being offerings

coming from the dispersal of a centralised pool of coinage. It is impossible to know whether or not these hoards were intended to be later recovered.

The evidence suggests that minting continued after both the conquest of AD 43 and the revolt against disarmament and its suppression in AD 47. Neither of these dramatic events appears directly detectable in the numismatic record. There is a tenuous possible link to the conquest in my analysis of the Roman coinage in the revolt-period hoards: these contain more coinage of Tiberius than would be expected based upon finds of such coinage across the country as a whole, and proportionately less of his successors (6.5.2). Could this be the residue of payments prior to the conquest which ensured Icenian support for Rome?

### **7.18 What is Icenian coinage?**

Whilst the evidence indicates that the coinage was always intended to be money and was increasingly used for internal trade, I do not believe that there is a single answer to the question ‘what is Icenian coinage?’. The die-study and the subsequent research have shown that coinage was multi-faceted in its uses and that its function evolved with time as society adapted to the use of money. In addition to trade the thesis has shown that the coinage was suitable for:

- The storage of wealth
- The settlement of religious and political obligations
- Prestige gift – early types
- The portrayal of mystical and secret imagery interpretable by initiates – early types
- Demonstration of political allegiance – later coinages
- Trading – all types
- Demonstration of the strength of traders or trading organisations – later types

My overall conclusions are that Icenian coinage started following the cessation of the flow of coinage from Gaul during the Gallic Wars. The main purpose of very first types may have been connected to Caesar's invasions of Britain. From the start the coinage was used as money and facilitated trade, but it was also used to enable local communities or powerful individuals to enhance their prestige. As coinage developed, its production became increasingly driven by commercial imperatives and by traders, who probably commissioned and organised the production of the later coinages.

There are two features of the coinage which appear to be at odds with its monetary role. Somehow its physical treatment did not involve abrasion, as unlike contemporary Roman coinage it generally lacks circulation wear. There is also an absence of very small denominations. Despite these findings I think that the evidence of its monetary role is clear, but what is also clear is that its use as money was not how we would use money today.

### **7.19 Reflections**

This thesis is the culmination of a long study which has used coinage to gain insights into a British tribal society. Its foundations were the die-study and the development of the hypothesis for the organisation and chronology of the coinage. The die-study benefitted from high sample sizes for most periods and denominations. Whilst I am very confident about the 'big picture' presented by the hypothesis, I suspect that some transitions from type to type or from period to period may not have been as neat as I portray them.

I started my numismatic study of the region with what I thought was its earliest type, the JA Stater. As the study continued I became intrigued by the earlier Ingoldisthorpe Stater and Quarter Stater; these types are included in the die-study and are discussed in Chapter 2. The Stater is minted in the North Thames area, seemingly for use in East Anglia and on balance I concluded that the related Quarter Stater was also

probably minted outside East Anglia. I continue to have doubts about this conclusion; in any event I suspect that future finds of these two types will provide further insights into the very early years of coinage in East Anglia.

Like many studies into ancient material culture, I have found my subject matter to have been sophisticated and complex. There is potential for much further study of Icenian society using the material in this thesis, addressing issues such as the precise locations of finds in the landscape and the nature of the trade that was facilitated by the use of coinage.

Throughout this study I have found few overt indicators of what must have been the growing influence of Rome within Britain. Those that are encountered become noteworthy, such as the prototype to Bury C (Figure 5.10), the Republican and Imperial Denarii in the revolt-period hoards (6.5.2), the Latin inscription and Greco-Roman styled imagery on the EsvPrasto Unit (5.6 and 5.7) and the possibility that the silver in Icenian coinage came from Denarii (4.4.2). What is probably more noteworthy is the shortage of such evidence. Perhaps part of the answer for this lies in my analysis of coinage finds at Snettisham, where I was surprised at the lack of early Roman coinage, despite the presence of Greek coinage and coinage from other LIA regions (6.2.1). I have a strong suspicion that the Romans were acceptable, or necessary, as trading partners and military allies; but were not considered acceptable from a cultural or religious standpoint. Perhaps they were considered barbarians, similar to the way that the Japanese considered Europeans until relatively recent times.

The information that I felt most in need of, when concluding this study, was a similar study of a neighbouring region. I think that when such a study has been completed, its detailed comparison with mine will significantly enhance the value of both.

## Bibliography

### Abbreviations used

BAR	British Archaeological Reports	OJA	Oxford Journal of Archaeology
BNJ	British Numismatic Journal	PPS	Proceedings of the Prehistoric Society
JRS	Journal of Roman Studies		
NC	The Numismatic Chronicle	SNC	Spink Numismatic Circular

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