THE UNIVERSITY
of EDINBURGH

Charon's Obol?
An archaeological study of the role of coins in Roman burial ritual (with case studies from Roman Italy, Germany, Britain and unconquered Scandinavia).

Lisa Brown

PhD in Archaeology
School of History, Classis and Archaeology
University of Edinburgh
2013

Reconstruction drawing of Burial 2 from Himlingøje in Sealand, Denmark (app. 6: 16). The coin is positioned on the necklace, between the arms of the deceased. Drawn by Alan Braby.

Declaration

I confirm that this thesis has been composed by me, and is completely my own work. None of the work has been submitted for any other degree or professional qualification. Parts of the database (appendices 4-6) have been used for a preliminary analysis, the results of which have been published. This paper has been included in appendix 2.

Lisa Brown 10 May 2013

Abstract

Little detailed analysis has been undertaken which looks at the coin in the context of the burial. Their numismatic information is discussed in detail in excavation reports but little or no attempt is made to investigate the function of the coin. In many cases they are simply regarded as payments to Charon, the ferryman of Greek mythology, for the journey to the afterlife; an interpretation based on classical literature.

Earliest research into the subject tended to look for evidence for 'Charon's Obol' using the information in the Greek and Roman sources with little or no reference to the archaeological material. This did not allow for a full understanding of their presence and meaning. Publication of Gorecki's *Studien zur Sitte Münzbeigabe in römerzeitlichen Körpergräbern'* (BRGK 56, 1975) and Cantilena's *Un obolo per Caronte?* (PdP 50, 1995) significantly changed methodology by analysing burial remains but even these are limited. They look very specifically at one part of the Empire and a single aspect of the coin in the burial, i.e. location and thus are not sufficiently detailed to find patterns which can be tested in different areas of the Roman Empire.

This work is a systematic analysis of the coin in the context of the burial using case studies from cemeteries from Roman Italy, Germany, Britain and unconquered Scandinavia (as a comparison to the Imperial evidence). It takes a database of c. 450-500 burials from each of the areas (with the exception of Denmark which has fewer examples) and investigates the pre-Roman tradition, chronological distribution of the practice, the metal type and number of coins used, the length of time between coin and burial date, pierced coins and associated grave goods.

The aims are as follows:

- Thoroughly investigate the coin in the context of the burial in each of the case study areas and compare the patterns identified;
- Explore the origin and spread of this custom, from early Greece to Italy across the Roman Empire and beyond, while investigating the potential religious or social meanings of the practice and its distribution;
- Chart the evolution and the possible reasons for changes and modifications to the practice over space and time;
- Assess the significance of my findings in terms of the transmission of cultural traditions or religious beliefs and practices between ancient societies.

Acknowledgements

Initial thanks goes to the Arts and Humanities Research Council (AHRC), as without the funding that they provided, this work would not have been possible.

I am very grateful to Prof. Eberhard Sauer and Dr Robert Leighton for supervising this work; for reading and commenting on various drafts and lending me books when I needed them. Thanks also go to Dr Fraser Hunter for reading and commenting on chapters, his good advice, giving me access to his personal library and putting up with me on his excavations when I needed a break.

I am extremely grateful to Prof. Alastair Small and Dr Tracy Prowse for allowing me to use the data and excavation photographs from the site of Vagnari. Additional thanks also go to Prof. Small for allowing me to use his personal library, and for reading and commenting on my Italian chapter.

I am indebted to Dr Helle Horsnæs and Mads Dyhrfjeld-Johnsen for their advice concerning the Danish material, giving me access to their unpublished work and keeping me up to date with recent publications. This was extremely useful in data collection and interpreting the coins in this area. Thanks also go to Mette Høj for allowing me access to photographs and information on specific burials in Denmark.

Thanks go to Dr Emma-Jayne Graham for giving me access to her unpublished work, which helped to widen my analysis. The information provided by Dr Jenny Hall at the Museum of London was also important in data collection and I am grateful to the staff at the Museum of London Archives for giving me access to original excavation material.

I am grateful to Niall Anderson for helping me with the statistical analysis and Ben Blakeman for creating the distribution map for Britain. Thanks definitely need to go to Suzy Sutherland for being the best English teacher I have ever had. I appreciate the time taken by Karen Howie to fix my internet and computer problems and Craig Angus for teaching me the wonders of Photoshop. Well deserved thanks also go to Lindsay Scott and Richard Kane for happily answering my incessant questions.

Thanks go to Alan Braby for the fantastic reconstruction drawing. I am very grateful to Dave Anderson for the obscure references to Charon and coins in burials, and offering his personal insight into the topic. I appreciate the help of Michael Marshall and Dr Dorothy Graves in references and joining the debate on the function of coins in burials. I also would like to thank Gemma Cruickshanks for providing tea and listening to me talk endlessly about this work, even though her first love is iron slag. I also appreciate all the advice given to me by Dawn McLaren on finishing up and handing in.

I am extremely grateful to Kate Anderson for her support (which took many forms) and advice. I am also indebted to Andrew Morrison for his love, encouragement, taking my chapters out of the bin and putting up with me, especially in the last couple of months.

Final thanks go to my parents, Joyce and Alan Brown, and my gran, Joyce Brown, as without their continued assistance and support, this work would never have been completed.

Table of Contents

List of Figures

List of tables

List of abbreviations

BMC	British Museum Catalogue of Coins
LRBC	Late Roman Bronze Coinage
RIC	Roman Imperial Coinage
RRC	Roman Republican Coinage
Typ	The coin is similar to this RIC type
app	Appendix

M	Male
F	Female
A	Adult
Y	Youth
C	Child
I	Infant

In	Inhumation
C	Cremation
P	Pierced coin

AE	Copper alloy
AG	Silver
AU	Gold

Den	Denomination
Au	Aureus
Sol	Solidus
D	Denarius
Qu	Quinarius
Sil	Siliqua
Dp	Dupondius
S	Sestertius
Fol	Follis
Sem	Semis
Q	Quadrans
Num	Nummus
Cen	Centenionalis

Chapter 1 – Introduction and Methodology

1.1 Introduction

The study of funeral ritual is not a simple undertaking. Since the publication of Van Gennep's work '*Les Rites de Passage'* in 1909 (van Gennep 1909), the theories surrounding interpretation of the funerary process, from death to burial and beyond, are being continually debated by both archaeologists and anthropologists. The continued discovery of individual tombs and cemeteries from every period in history add more data to the study, which consequently requires frequent re-assessment. Interpretation focuses both on the cult of the dead and the importance of the funeral to the living society.

The answer to the question as to what underlies rituals associated with burials is extremely complex, and not a topic which can be tackled in detail in this work. It is necessary, however, to describe some of the problems encountered when analysing burial ritual, both generally and in reference to Roman funerals. This will be followed by a discussion of the methodology of this work.

1.1.1 Interpreting burials

In simplest terms, the need for a funeral and associated ritual is linked to the separation of the living from the dead (van Gennep 1960, 146; Laneri 2007, 5). It is a means by which the surviving members of a community or family group can deal with death in a structured manner, creating in the process "social, cultural and religious identities", which are essential for a community as a means of confirming and reinforcing their shared beliefs in the afterlife (Laneri 2007, 5). Additionally, there remained a fear that without the necessary rituals, the deceased could come back to haunt the living (van Gennep 1960, 160; Metcalf and Huntington 1991, 81).

In order to ensure the dead would reach the afterlife, a certain set of rites had to be performed. Interpretation of these rites, based on the remains in the archaeological record, is not easy. They comprise a considerable variation within a single society, which can be linked to the sex, age and social position of the deceased (Van Gennep 1960, 145). In addition, Van Gennep points out that within a single society or

community there are "several contradictory or different conceptions of the afterworld, which may become intermingled with one another" (van Gennep 1960, 146). This means that the assemblages found in burials are most likely the result of multiple beliefs in the afterlife. This is a significant consideration when looking at coins in burials in the Roman imperial period, as the Empire incorporated a large number of very different territories and peoples, with well-established cultural identities. It is often unclear to what extent the rites being interpreted should be considered Roman, native or a mixture of both.

As part of these rites, the deceased can be, although are not always, equipped with the necessary clothing, food, tools and amulets to ensure safe and permanent passage to the afterlife (van Gennep 1960, 153-4). The goods placed in the burial are carefully chosen. Parker-Pearson argues that the study of grave goods is "...a difficult jigsaw puzzle with many pieces missing", since each of the items included in the burial is likely to have been selected for very different reasons (Parker-Pearson 1999, 11). The choice of which goods are deposited could also be personal to those involved in the burial process, and the real motivation for their presence is hard to or impossible to determine. Therefore, it could be argued that the best way to try to fully understand the deposition of any objects, such as coins, in a grave, is to consider it in the overall context of the burial and the other finds.

1.1.2 Roman funerals and beliefs in the afterlife

A great deal of evidence exists for the burial process and associated belief in the Roman world. The literary, epigraphic, architectural and artistic evidence can all be used to infer religious belief. Hope warns that using this large volume of evidence to produce a blueprint for a typical Roman funeral can create a model that was not a "reality for most of the inhabitants of the city of Rome, let alone the Empire" (Hope 2009, 66). The overall picture is much more varied and "the temporal, regional, ethnic and economic differences" of the Empire cannot be ignored (Hope 2009, 66). The expansion of the Roman Empire meant the incorporation of many different peoples, with pre-existing traditions in relation to death and burial. It would therefore be wrong to assume that they adopted a 'Roman package'. Instead, the interaction may have produced a combination of beliefs and associated practices which are

difficult to define. As will be discussed in the provincial chapters (chapters 3-5), this phenomenon could be observed in the form of local traditions.

The Roman funeral normally involved the completion of a set of specific rituals, which would vary depending on the economic and social status of the deceased and their family. These were intended to give safe passage to the deceased to the afterlife and ensure that they did not return. From the moment of death a set of rites were performed by the family, who, on the acknowledgement of death, became the *familia funesta*, and were morally and lawfully obliged to perform these rites (Hope 2009, 71). On death, a close relative gave "the last kiss", designed to catch the soul, and closed the eyes of the deceased (Toynbee 1971, 42-43; Virgil *Aeneid* xi. 486-487). This was followed by lamentation until the body had been interred. The deceased was then laid out to be washed and anointed before being dressed (Toynbee 1971, 43). Traditionally, it was the work of the women within a family who were responsible for preparing the body for the burial, although professional undertakers were used if they could be afforded (Graham 2011, 32-33). Toynbee argues that it is at this point in the burial process that 'Charon's fee' is placed on the mouth of deceased, interestingly, before the body is put in the ground (Toynbee 1971, 44). Using the archaeological evidence, it is impossible to confirm this assertion and it is probable that the moment at which the coin offering is made, is the personal choice of those involved in the burial process. As will be discussed further in Chapter 8, the location of the coin in the fill indicates that some individuals refrained from depositing the coin until the end of the funeral.

Various myths existed in the Roman world to explain what happened to the soul after death. The most common is that a ferryman, Charon, transported the deceased across the river Styx or Acheron to the Elysian Fields (Kurtz and Boardman 1971, 163; Toynbee 1971, 44; Hope 2009, 71). Charon, in return for this service, required a monetary payment. This mythology has led to the interpretation of every coin found in a burial context as payment to Charon; an assumption that will be critically discussed throughout this work. Given that between 1% (Brougham) and 54.7% (Sub Ascia) of burials per cemetery contain coins, it is unlikely everyone was observing the same practice.

Another belief was that the deceased moved upward to exist among the stars (Toynbee 1971, 38; Hope 2009, 107). Plato provides evidence for this in his description of the death of Er:

...and like shooting stars they were all swept suddenly up and away,
this way and that, to their rebirth... (Plato, *The Republic* XI.621b)

This was written in the c. 370's BC, and may indicate an original belief in an afterlife in the stars. As will be discussed in Chapter 3, this belief may have come from the Near East or Egypt. Hope argues that to what extent Romans believed in a celestial kingdom, or a crossing of a river is "impossible to answer" (Hope 2009, 112).

As with modern day society, the possibility that people did not believe in an afterlife must also be considered. Inscriptions on gravestones can be used to interpret how individuals perceived the afterlife, or a lack of one. For example: '*...Obitus nil eris...*'[1] (Geist 1969, no. 443, 166) from Rome or *'Haec domus aeterna est, hic sum situs, hic ero semper*[2] (Geist 1969, no. 441, 166) from Pesaro. These clearly indicate that some individuals, and/or their family, had a rather pessimistic attitude towards death and the possibility of resurrection.

1.1.3 Conclusion

Although brief, the previous sections have highlighted a number of problems with investigating the role of specific items in funerary ritual. There was no single funeral in the Roman world; they varied widely based on the social and economic status of the deceased and their family and could often be used as an expression of identity. The grave goods must have been chosen, at least in part, based on these factors, but it is impossible to determine the specific reasons for the choice of every item in an assemblage. The individuals taking part in the funeral are also an important consideration as items may have been placed for very personal reasons. For example, they might have a personal significance to the deceased or a family member.[3] Items

[1] Translating to '...in death you will be nothing...'
[2] Translating to 'Forever this is home, here I lie, I will be here always'
[3] At the beginning of this work, I did not realise how important it was to consider personal choice; until I had a conversation about this work with a rather inebriated passenger on a train.

based on personal choice cannot, unfortunately, be easily identified in the archaeological record.

Multiple beliefs in the afterlife further complicate interpretation. It is often unclear which objects, if any, were deposited in observation of a specific belief in the afterlife. The inclusion of coins in burials is connected to the Charon by contemporary literature (see Chapter 3); therefore, it is understandable why this has become the standard interpretation. However, given that the Roman Empire comprises a large number of provinces, with individual cultural identities, a single over-arching explanation for the deposition of coins in burials is not suitable to identify and explain any variation which might occur in the practice.

1.2 Methodology

Investigation into this topic was originally undertaken in 2005/6 as part of my undergraduate dissertation. This work examined coins in burials from Britain, Germany and unconquered Germany, concentrating on coin deposition over time, metal type, location of the coin in the grave and the possibility of specific coin choice. The aim was to investigate coins in the context of the burial, to show that it was not an unchanging phenomenon; when looking more closely at the custom in different regions of the Roman Empire, patterns began to emerge. This study was limited, both geographically and chronologically, but highlighted some interesting patterns that warranted further study.

Presentation of the preliminary results at the Theoretical Roman Archaeology Conference in 2007, and consequent publication in the proceedings (Brown 2008), showed a wider interest in the topic. It was decided therefore, that a more focused and detailed study into the custom would be beneficial in understanding the role of coins in Roman funerary ritual and religious beliefs, and show how the custom changed as it moved through the Roman Empire.

After working late and taking the last train home to Fife, the passenger asked what I was typing. After attempting to explain the topic, he told me that he wanted to get buried with a 5 pence piece. When I asked why, he told me that it was the only one with a thistle on it.

This section will identify the overall aims for this work, the structure of the thesis, the geographical and chronological limitations, data collection and how the data will be analysed.

1.2.1 Overall aims

Previous investigation raised a number of questions which could not have been fully answered in the scope of the work. First, is the deposition of coins in burials a Roman invention which spreads to the provinces during Roman occupation, or does earlier evidence exist for the placement of coins in burials? If pre-Roman burials contained coins, does the practice and associated belief change in the imperial period? Can it be argued that the adoption of this practice was easier, as they could adapt a pre-existing tradition? Or, does it reflect a change in religious belief from local to that of the Romans? In addition, what do the patterns identified tell us about the observation of the custom in different territories of the Roman Empire? Does the custom remain unchanged in each of the provinces, or can variation be detected? If different patterns are observed, do they indicate a local adaptation of the practice or do the coins have a different meaning? Finally, differences in the practice were identified in areas outside Roman imperial boundaries. How does the deposition of coins in burials differ in these areas? Do the coins serve a different role in burial ritual?

To attempt answer these questions, three main aims have been set out for this work.

The first aim is to investigate thoroughly the coin in the context of the burial in each of the case study areas (see section 1.2.3), using the methodology described below (see section 1.2.6). Analysis will concentrate on the Imperial period (see section 1.2.4), although the pre-Roman deposition of coins in burials will be also be briefly discussed. Each area will be investigated separately to allow for the identification of its own individual patterns and possible local adaptations of the practice. If irregularities are identified, those burials will be discussed in more detail, to investigate whether the coins have a different function.

The second aim is to compare the patterns identified in each of the regions studied (Chapter 8). This will be used to investigate whether Roman occupation is a catalyst in the adoption of this practice and give a better understanding of the custom. Does the tradition remain the same as it moves throughout the Empire, or can changes be observed?

The final aim is to investigate the role of coins in Roman burial ritual. Is it correct to assume that all coins in burials are intended as payment to Charon? Or, based on the results of the objectives above, can alternate suggestions be made as to the function of the coins? As chapter 3 will show, references to Charon begin long before a monetary economy, is there any evidence for payment before the invention of coinage?

1.2.2 Structure

The following section outlines the structure of this thesis and discusses the aims for each chapter.

Chapter 2 is intended to give an indication of the current state of research into burial practices. It looks first at the cemetery excavations, showing the changes in approach to interpreting and publishing burial data. The second set of works analyse general burial practices. These demonstrate different methods of quantifying large databases and interpreting the results. The final set of publications is those which deal specifically with coins in burials, indicating the foundations on which this current work is based.

Since Charon's fee is most often used to explain the deposition of coins in burials, Chapter 3 will give a background to current interpretation, explaining why and how the practice has become intrinsically linked to Charon. The chapter begins with an overview of the origins of the ferryman and reciprocal agreements for safe passage to the afterlife. This is intended to investigate whether the ferryman is a Greek invention or if it has been adopted from an older religion. Two suggestions have been made for the origins of the ferryman in Greek mythology, Egypt and the Near East

(Wilkinson 1996, 377; Lipiński 2003, 299). The evidence for each suggestion will be discussed to determine which is most likely to be accurate.

The second part of Chapter 3 examines the main references to Charon in Greek and Roman literature. These are used to show the evolution of the belief in a ferryman, from his first introduction in the *Minyas* in 6th century BC. It is in these works that the first references to the payment of a fee appear and is the basis for the link between the deposition of coins and Charon.

This is followed by a discussion of Etruscan Charun in southern Italy. The similarity in name between Etruscan Charun and Greek Charon, and their function as guides to the afterlife, suggests a possible connection between the deities. Is there any similarity between the characters? Moreover, the discoveries of bronze ingots in Etruscan burials as early as the 8th century BC (see Chapter 4), implies a tradition for the deposition of monetary offerings in burials. Is it possible that the bronze ingots are also intended as payment to Charun, for the journey to the afterlife?

The final part of Chapter 3 illustrates the longevity of the practice of depositing coins in burials. It must be understood that this custom does not end with the collapse of the Roman Empire and coins can be found in burials as late as the 19th century (McPherson 1929). Although not every instance of coins in burials can be discussed, select examples will be included to demonstrate that this is a wide-ranging tradition, with evidence for a large number of cultures observing the custom. The prevalence of the association of Charon with death also continues into modern day popular culture. This subsection is designed to give some examples of these, to illustrate how this work covers only a very small part of a much more complex study.

Chapters 4-7 are the regional studies. As will be discussed in Chapter 2, section 2.4, the main limitation of previous work was that it concentrated on a single region. Although this allowed for a thorough study of coins in burials, it is unclear whether the patterns observed are localised or indicative of provincial traditions. It was decided therefore, that this PhD would look at a number of different provinces in order to compare the results. The reasons for the areas chosen are discussed in

section 1.2.3, the geographical limits, and the analyses undertaken in each region are discussed in section 1.2.6.

Chapter 8 will compare the results from each of the case study areas. It is hoped that this information can be used to identify similarities and differences in the practice in each of the regions, and give a better understanding of the custom as it spreads throughout the Empire. Are all regions observing the same practice or can regional variation be identified? If differences are observed in the deposition of coins in burials, does this indicate different functions of the coin? Can it realistically be argued that every coin is deposited as Charon's fee, or can alternative suggestions be made about the role of coins in Roman funerary ritual?

As the main results of this study are presented in chapter 8, chapter 9 will initially concentrate on the aims and whether they have been achieved. If they have not, explanations for this will be attempted. It will also discuss the contributions made by this thesis and highlight areas for further work.

1.2.3 Geographical coverage and selection of case studies

The main problem with previous research into coins in burials is the concentration on a single area of the Roman Empire (see section 2.4 for discussion). This study, therefore, needed to include more than one province. It is hoped that this methodology will allow investigation into how the custom changes through time and space; are the same patterns identified in every region? Each of the areas is studied separately so that its individual patterns can be identified; the results are then compared in Chapter 8. The following section outlines the regions studied in this work and the reasons for their choice.

Since this study focuses on the Roman imperial period (see section 1.2.4), the province of Italia was the first region chosen, as it is the origin and centre of the Roman Empire. It is an essential start-point in understanding the movement of the custom in the imperial period into the conquered provinces. Italy is also one of the areas to produce the earliest evidence for the deposition of a type of currency in burials, with the inclusion of *aes rude* in graves dating from the 8th century BC

(Bergonzi and Agostinetti 1987). To study the origins of the custom, and determine whether it spreads from Greece, would require a detailed study of 5th and 4th century BC burials from Greece, Sicily and southern Italy, something which cannot be done justice in this work. However, by discussing the early examples, it might be possible to postulate origins in practice and belief (which could be tested in future work) and understand how the practice evolved in the imperial period.

The second region to be considered is Germania. This area has been included to look at the spread of the custom into another province of the Roman Empire. This area has also been chosen as it has evidence for the inclusion of coins in pre-Roman burials. As with Chapter 4, modern Italy, these will be briefly discussed to determine if they predate Roman contact and understand how the practice changed in the imperial period. Coins in burials in provincial Germania have already been subject to a detailed study (Gorecki 1975), although is limited geographically to the Rhine area. It is hoped that the patterns observed by Gorecki will be an interesting parallel to this work, potentially adding validity to both studies.

Burials containing coins from the province of Britannia are also considered in order to investigate evidence for the custom in this region. If coin deposition in burials can be detected, any identifiable changes in the practice will be examined. Evidence exists for the deposition of coins in possible late Iron Age burials. Can these be argued as dating to pre-Roman contact, or, is this burial tradition brought into Britain by the Romans?

Does evidence exist for the practice outside Roman imperial boundaries? The area of modern Denmark is included in this work as a contrast to the evidence from the Empire. Since this region is located outside direct Roman control, it is difficult to argue that any coins in burials would have the same theological meaning. Any burials containing coins are systematically analysed to interpret the function of the coins in this area, and determine how the practice differs when compared to provincial territories.

Overall, each of the regions has been specifically chosen for a detailed analysis of the presence of coins in burials in a cross-section of Roman society. This study is designed to establish if, how and when the custom spreads to Italy and into north-west Europe. Each of these areas has yielded burials with coin offerings prior to Roman occupation; therefore, the changes that the practice underwent in the imperial period can be examined

1.2.4 Chronological limits

The chronological limits of this work were more difficult to set. As Chapter 4 will show, the tradition of placing a form of currency in burials date from at least the 8th century BC in certain areas, and does not end with the collapse of the Roman rule, with examples noted in Anglo-Saxon burials in Britain (Crawford 2004). Unfortunately, it is not possible to include every burial containing a coin in this work. Instead, the analysis concentrates on burials dating from the early imperial period up to the late 4th century AD. Rome is rapidly expanding at this time, and it is hoped that this would be the period in which spread of the custom might be identified.

Although the imperial period is the focus of this work, acknowledging the early examples is necessary. To do this, pre-Roman burials from each of the case study areas are briefly discussed at the beginning of each chapter. The intention is to illustrate that coins in burials were not a Roman invention, and to analyse how the practice changed after Roman occupation.

1.2.5 Data collection and problems encountered

It is not possible to include every burial containing coins from each of the regions studied. However, it is necessary to include enough burials that they are representative of the overall patterns in each of the case study areas, but not so many that the irregularities, if any, could not be discussed in detail. As it has been already shown that a dataset of around 200 burials can produce significant results (Brown 2008, 122), it was decided that between 400 and 500 burials would be sufficient for this study. Using more examples will help to look more thoroughly at the evidence to see if the patterns are replicated. In order to avoid using cemeteries confined to a

single area, a sampling strategy was used in data collection, attempting to look at burials from throughout case study regions. In total, 420 burials from Italy (521 coins) are considered, 627 burials from modern Germany (887 coins), 455 burials from Britain (781 coins) and 22 burials from the area of modern Denmark (29 coins).

This PhD is not a numismatic study. It is intended to examine the coins in the broader context of the burial and identify patterns in the practice in each of the regions studied, to propose wide-ranging patterns and determine its function in Roman burial ritual. Therefore, a wide range of information on both the coin and the grave is considered. Data was collected under the following headings:

- Area
- Cemetery
- Grave number
- Burial type
- Sex of the deceased
- Age of the deceased
- Date of the burial
- Number of coins in the burial
- Date of the coin(s)
- Position of the coins in the burial
- Metal type of the coins
- Denomination
- Obverse details
- Reverse details
- RIC/BMC number
- Pierced (yes/no)
- Degree of wear
- Other grave goods in the burial
- Additional information
- Thickness, weight and diameter of the coin (if described)
- References for the burial.

The process of data collection was often problematic. Excavation reports do not always contain all the information this work requires. For example, coins may not have been analysed by a specialist, and numismatic detail is lacking. If the report included photographs of the coins, these were consulted to fill in the gaps, but since excavation reports do not often include coin photographs or detailed drawings, there were gaps which could not be filled. This detail is absent where the coins have not been cleaned to the point of identification or are simply too worn. Another problem

was the lack of osteological analysis. This made the discussion of the practice, based on the sex and age of the deceased, almost impossible, leaving gaps in the database which could not be filled. Overall, it was not possible to check all the original excavation data given in the published reports and so it was necessary to trust that the information that they gave was accurate. Where I felt that they may be incorrect, the possibility has been highlighted in the text.

Other problems included the availability of published material in certain areas. For example, in Italy, the publications of cemeteries in the south of the country are much more limited. To try and address this imbalance, unpublished burials from the site of Vagnari in Puglia have been incorporated.[4] In addition, full cemetery excavation reports are used, where available, as opposed to summaries in journal articles. Summary publications and preliminary works do not provide the detail of full catalogues in a report, which is necessary for this work; although even excavation reports can have information missing.

Where cemeteries have been summarised in secondary work, the original sources were also consulted. And, in selected cases, the original excavation material referenced. This included visiting libraries and museum archives, for example the Museum of London Archives, to add further data that may have been deemed unnecessary for the excavation report.

A major problem encountered with the examination of the data was the prevalence of cremation until the late imperial period. In order to analyse the location of the coin in relation to the burial (which specifically looks at inhumations), it was necessary to add late imperial cemeteries. It is for this reason that many more examples from Germany have been included than the other regions.

Every precaution has been taken to ensure that the information of the burial and coin was correct when data collection was stopped. The dates for these are roughly October 2008 for Britain, August 2009 for Italy and June 2010 for Germany and

[4] Permission kindly granted by Prof. Alastair Small (The University of Edinburgh) and Dr. Tracy Prowse (McMaster University)

Denmark. Each chapter was written immediately after data collection had ceased, although more recent excavations were added later if the information was relevant.

1.2.6 Analysis

As discussed above, chapters 4 to 7 are the geographical case-studies. Each region is investigated using the same analytical criteria so that similarities and differences can be easily identified. The following section outlines the main analyses undertaken in each chapter, the problems encountered, and how these were minimised to produce more accurate results.

The chronological distribution of the burials containing coins was first to be investigated, to determine how the practice changed over time. How does this compare in different areas? One would expect the earliest examples to be in Italy, since this is the centre of Roman rule, with the practice spreading to the provinces as they fell under Roman occupation; can this be observed?

The main problem encountered is that this investigation requires the burials be dated to single year, so that they can be considered in the correct category. Unfortunately this is not possible, with the burials in the database dated to between 50 and 200-year ranges. It was necessary therefore, to use the mid-point of the burial date to determine the category for analysis, meaning that some burials may be considered under the wrong date. To minimise any misleading results, the burials were divided into 100-year date ranges, in the hope that more would be considered in the correct category. A second set of graphs, dividing the burials into 50-year categories, was then compiled to look more closely at the changes over time and test the patterns observed in the first study. A further problem is the possibility of bias in excavation, since it is impossible to know if the patterns are the result of more burials excavated dating to a particular period. Without a detailed examination of the date of all burials excavated in each of the regions, this cannot be confirmed. Where this bias is a possibility, it is noted in the text.

The second investigation examined how long a coin has been in circulation before being deposited in the burial. This section will be used to determine if coins are

being taken from general circulation, or if earlier coins are being specifically chosen. A further consideration are the pierced coins, do these have a longer circulation period?

The main problem with this investigation is that not all the burials and the coins have been dated; this can significantly reduce the dataset. In addition, in the absence of other datable objects, the coin can be used to date the burial and so an over-representation of coins contemporary with the burial should also be considered. As with the first analysis, not all the coins and burials have been dated to less than a 50-year date range. In the case of coins, an RIC or BMC number can narrow this down. To minimise errors, the shortest possible circulation period for the coins was calculated, using the latest date for the coin and the earliest date of the burial. It should be understood that the average circulation period for Roman copper alloy coins can vary from period to period and from region to region. Therefore, coins predating the burial by up to 100 years are not considered unusual.

The metal type of coins was analysed to answer a number of questions. Were predominantly copper alloy examples being used or higher value denominations? Does this mirror evidence from other ritual deposits, such as spring offerings? Did the denomination and metal of the coin used in the burial change over time? With the devaluation of the silver coinage, can fewer or more be identified in the material record? In addition, can the subdivision of the copper alloy coins into their denominations show further patterns?

Problems with this investigation are less frequent since the coins generally have their metal type recorded, even if the denomination is unclear. One problem is whether to classify the *antoninianus* as base metal or silver. In order to assess its use and changes through time, it has been analysed separately as billon. Like the previous analyses, the main problem comes with the chronology of the burials. Where long date ranges have been used, errors are possible, but they should not be significant enough to alter the overall results.

The number of coins placed in a single burial was also examined. Is the deposition of one coin most common? How are these arranged chronologically? Is there a period in which a change in practice can be identified with the inclusion of more coins? If multiple coins are most frequently deposited, how many are normally used? Can it be argued that multiple coins are placed for different symbolic reasons? Fewer problems are encountered with this type of evidence; the number of coins in a burial is generally noted, even if other information, such as the denomination, is lacking.

The location of coin in the burial is one of the most important considerations when examining the practice and possible links to the Charon mythology. The Graeco-Roman literary sources suggest that the coins were placed in the mouth (or found around the head) must be payment to Charon; is this reflected in the dataset? If everyone was observing the same strict practice, then one would expect the same location in every example. This section will look at the varied locations that the coin has been placed; can it be argued that different positions have different symbolic meanings? How does the position change over time? This section will concentrate on the inhumations, although the patterns in the cremations will also be considered. An interesting question could be whether coins in cremations are as important as those inhumations?

A major problem is the lack of burials with the find location for the coin noted. For some burials it is possible to check photographs and drawings, but not every excavation report has this amount of detail. In some of the older publications, the possible original position of the coin has been noted, as opposed to the find spot. Furthermore, post-depositional processes, such as agricultural activity and the excavation techniques, might have changed the position of the coin. In all examples it has been necessary to trust that the excavation report is correct and supplement the catalogue record by checking the position on photographs and drawings.

An analysis of pierced examples and the degree of wear was also necessary. The piercing of a coin implies the change in function. It is no longer a form of currency, but instead was viewed as symbolic or aesthetic. These examples are not likely to be Charon's fee and should be looked at in more detail. Can the data on these burials be

used to suggest alternative interpretations for the role of the coin? Surprisingly, the main problem was that the piercing of the coins was not always noted in the reports. In a number of examples, checking of the photographs showed that the coin was pierced, even though this fact was not noted in the catalogue record. In general, photographs of the coins are not included in publication unless they are in good condition. This would suggest that some examples may be missed, although these are probably not high in number.

To thoroughly analyse the coin in its context, the other grave goods are also considered. Were the pierced coins physically linked to other amulets on a chain, suggesting a protective role? Or, are they part of a jewellery piece? This may help the understanding of the function. Also, what do the other grave goods tell us about the wealth and status of the deceased? Was every level of society observing this custom or just the upper or lower classes? The most obvious problem is the difficulty with interpreting wealth through grave goods alone. Those with a higher amount of precious metal tend to be interpreted as wealthier, although this may not always be the case; gender and other sociological factors can rule the type of grave goods deposited.

Comparison of coins in burials to those in circulation, to determine whether coins are being deposited in burials simply because there are more coin in general circulation, has been difficult to achieve in this work. Coin circulation varies within every province of the Roman Empire, so it would be inaccurate to compare the burial data to a single site, as it would be difficult to establish if the patterns are typical throughout the region. Since the burials have been purposefully chosen from throughout the case study areas, a detailed survey of all the coins found in each of the regions, and how the practice changed over time, would be required to interpret general circulation patterns. Unfortunately, this was not possible in the scope of this work. However, the collation of data on coins from 140 sites in Roman Britain by Richard Reece makes a comparison of coins in burials to coins in circulation in Britain possible (Reece 1991). It is argued that this survey is more representative of coins in circulation in Roman Britain.

In order to test the patterns observed in the burial data, a chi-squared statistical test was undertaken, comparing coins in burials in Roman Britain to site losses given by Reece (see Chapter 6, section 6.4.8). A Kolmogorov-Smirnov test was also attempted, but since the data are categorical and presented in a contingency table (i.e. counts within a specific group/time period), this was not successful.

1.3 Conclusion

It is hoped that the methodology above will thoroughly investigate the coin in the context of the burial, to give a better understanding of the custom and how it changed as it spread throughout the Roman provinces.

Chapter 2 – A critical review of previous research

2.1 Introduction

Chapter 1 has discussed the main problems associated with the interpretation of funerary ritual and belief using the material record. It showed that an analysis of all possible approaches to burial data is not possible in this work; this literature review will therefore concentrate on the methodology of a number of cemetery-based publications, which were influential in shaping my approach. The aim is to critically evaluate these works, to examine the problems they encountered, how these were dealt with, demonstrate how interpretation of funerary remains has changed over time, and how their methodology affected the approach to coins in burials in this work.

Three main types of sources will be considered. The first are cemetery excavation reports. These works highlight changes in approach to the publication of the excavations and interpretation of the material remains. The second set of evidence is those works which look specifically at burial practices. Although not discussing individual sites in detail, they do show different methods of quantifying burial data and interpreting the results. Also included within this section is discussion of Eckardt's work 'Illuminating Britain' (Eckardt 2002). This survey is highly relevant to this thesis in that it includes a study of a single aspect of burial ritual, with similar problems being encountered. The third set of works, which deals directly with coins in burials, demonstrates the status of current research into this specific topic. This thesis in particular has aimed to build upon and advance the latter, by contributing original data and new interpretations.

2.2 Cemetery excavation reports

The recorded findings and discussions within cemetery excavation reports are the first step in the identification of burial and funerary practices and usually offer an initial interpretation of the remains. However, despite a large number of excavated burials there are relatively few inspiring cemetery reports. This section will consider

the best examples from Roman Britain, an area with some of the most innovative approaches to interpreting burial data and publishing excavation reports.

The publication of the 1967-72 excavations of Lankhills cemetery in Winchester (Clarke 1979) is regarded as the first, and still to this day one of the most comprehensive, cemetery reports, and is included as a classic example of social interpretation of burial data. New excavations at Lankhills in 2000-05 and improved post-excavation techniques, such as isotope analysis, have helped to test and corroborate the original findings by Clarke; these are also considered in this section (Booth 2010). The Brougham report is included as a good example of an integrated approach to burial material, using modern techniques and including a wide-ranging discussion to publish early excavations (1966-67) and shed light on funerary rites in this area (Cool 2004); the analysis of cremations is the best available to date. Also considered in this section is the publication of the Eastern cemetery in London (Barber and Bowsher 2009), showing one method of publishing an extensive excavation. It is hoped these will give a thorough understanding of the best practice among varied approaches to burial studies.

The Roman Cemetery at Lankhills (Clarke 1979)

The report on the Roman Cemetery at Lankhills in 1979 set a new standard in cemetery publications. It was one of the first to combine descriptive and analytical approaches to burial remains, using the information to assess Romano-British burial practices and societal structure, and to identify possible non-native burials. To achieve this, it is divided into four distinct sections: Part I gives the archaeological background, a description of the excavations and quantification of the results; Part II is an analysis of the results; Part III includes specialist reporting on the finds; and Part IV a discussion of what the results tell us about burial practices, intrusive graves and religion.

One of the main ways in which this report sets itself apart from earlier works is the volume of detail included in the text. Table 2 in Part I is perhaps most significant as it lists all known information about each of the burials excavated, from the measurements of the grave pits to the stratigraphic relationships, the finds, and the

likely date of the burials (Clarke 1979, 24-95). This information tended to be summarised within earlier (and sometimes later) reports, but it is this level of detail, presented clearly to the reader, which is essential in making the report accessible for future studies. This is one of the main reasons for the attention paid to Lankhills cemetery in this PhD. The 'non-burial' features are also individually described to a very high standard (Clarke 1979, 96-110).

With the use of modern data storage, such information tends to be presented on discs attached to the rear cover or on associated websites, but there are merits in including a selection of it within in the text. For example, it is much easier to cross-reference if one is not in front of the computer, and it ensures data and conclusions are clearly linked. This aspect of Clarke's report was extremely influential in determining the volume of information to include in this work. In order that the reader is as fully informed as possible whilst reading my analysis and interpretation, I opted to include a large number of tables, summarising all the available information on the burials relevant to that particular discussion. In addition, all data collected for each of the excavated burials in each area is collated in separate databases, accessible on the disc at the end of this PhD (see appendices 3-6).

The analysis and discussion sections (Part II and IV) of the publication are quite dense, and, in areas, difficult to follow. Nevertheless, the methodology is sound, resulting in observations and interpretations which still hold up today (see discussion of Booth et. al. 2010 below). Clarke outlines his aims as to "classify and compare, define and explain, and provide a foundation for historical conclusions" (Clarke 1979, 111). These aims are accomplished through the creation of a chronology for the site, both horizontally using datable artefacts from within the graves, and vertically, by looking at the stratigraphic relationships between the burials (Clarke 1979, 113-121). This methodology is extremely effective and could only be improved by advances in the dating of artefact typologies and scientific dating methods.

Using the chronological framework, the quantified data from Part I was assessed for patterns and anomalies, and some explanation given for patterns identified. As

expected, analysis began by looking at the age and sex of the deceased and the associated grave furniture, but unusually, Clarke goes a step further by looking at grave types, burial depth, personal ornaments and position of the grave-goods in the burial; these are even used to interpret the ideologies and beliefs of the mourners (Clarke 1979, 153-155). This is an extremely important and complex section and would not be out of place in a contemporary cemetery publication. By thinking much more widely about the raw data, Clarke has been able to interpret changes in burial practices in the 3rd and 4th centuries AD, using Lankhills as a foundation combined with parallels from the rest of Roman Britain. This factor was extremely influential for this PhD, which seeks to reassess the interpretation of coins in burials, not least by comparing the data in different geographical areas. It may be noted that much of Clarke's analysis could not have been achieved without access to a computer and statistical modelling packages (Clarke 1979, 111).

Two aspects of this publication were especially influential in my approach to the significance of coins in graves. The first was a very brief consideration of objects in the fill (Clarke 1979; 21, 145-6). These include coins, bracelets, beads and bones, which are interpreted as likely intentional offerings (Clarke 1979, 145). The second was the extensive examination of the results of the excavations with regards to religious belief (Macdonald1979, 404-433). Although two very different discussions, both illustrate how important it was to think in broad terms and avoid the rather narrow range of interpretation which has tended to characterise past research.

Despite its advances in interpretation, the publication is lacking in osteological detail. The analysis of skeletal remains was confined to identifying the age and sex of the deceased, and discussion of this is a general note that outlines the methodology (Clarke 1979, 342). Seven of the decapitated burials were evaluated, identifying the trauma on the cervical vertebrae (Clarke 1979, 342-344). These data could have fed into his later discussion and I feel that this was a regrettable oversight by Clarke, in an otherwise comprehensive publication.

The late Roman cemetery at Lankhills: Excavations 2000-2005 (Booth 2010)

The report on the recent excavations at Lankhills cemetery was not intended to replace the findings of the previous volume. In fact, Booth clearly states in the introduction that he was in the unique position to build upon an already detailed and accurate report, aiming to answer questions which Clarke could not by using modern scientific testing methods (Booth et. al. 2010, 13). A further aim was to reassess the cemetery in the light of new excavations of the site, subsequent thinking about the cemetery, and the excavation of other Romano-British cemeteries (Booth et. al. 2010, 13). The benefit of this process is clear: it provided the chance to evaluate if and how the original interpretation of the site changes using modern investigative methods. Using a combination of older and modern excavations was an important consideration in this PhD, although the problems associated with early reports must be acknowledged in the methodology (see section 1.2.5).

Booth's report follows a similar format to the first, including extensive finds reports (Booth et. al. 2010, 247-338). Most notable amongst these, in regards to this PhD, was the conclusion by Cool that the choice of coins was ruled by 'other factors': i.e. specifically chosen, and not picked out of small change in the pocket (Cool 2010, 268). This is something which I have attempted to investigate (see section 7.10).

The most valuable aspect of this work, however, is the osteological analysis. This was undertaken in two separate parts. The first looked at the pathology of the bones, investigating disease and trauma, trying to identify the general health and well-being of those buried at Lankhills. This also incorporated some data from the 1960's/70's excavations as the remains were studied as part of a PhD (Gowland 2002). The second was isotope analysis, testing carbon and nitrogen levels to determine diet (Cummings and Hedges 2010, 411-420) and oxygen and strontium (Chenery *et al* 2010, 421-428) to determine the origin of those buried at Lankhills. Analysis showed that the people of Lankhills had a varied diet with access to animal proteins and in some cases fish (Cummings and Hedges 2010, 419). It also showed that the population came from Lankhills, other parts of Britain, and from a warmer climate, possible Pannonia (Chenery *et al* 2010, 427). This confirms Clarke's finds-based interpretation of the origins of the cemetery population and the likelihood of the presence of individuals from much further afield.

The discussion within chapters 7 and 8 continues to corroborate and update the observations made by Clarke (1979). The use of radiocarbon dating allowed for the creation of a much more refined chronology, showing the earliest pits and graves date to c. AD 300 (Booth et. al. 2010, 456/7) and confirming that it was abandoned c. AD 410 (Booth et. al. 2010, 460/1). The new evidence also supported the identification of the sometimes rapid evolution of burial practices over time (Booth 2010, 505), a major consideration when studying the changes of one aspect of burial ritual over time.

The main disadvantage of this volume perhaps is the extent to which it is based upon the earlier work by Clarke. It may have been difficult to publish an excavation in the shadow of such a highly regarded work, but it would have been interesting to see how the site would have been interpreted as a separate entity, without the discussion concentrating on testing Clarke's hypotheses.

The Roman Cemetery at Brougham, Cumbria (Cool 2004)

The publication of the 1966-67 excavations at Brougham gives a detailed insight into the funerary rites of the area, with a comprehensive discussion of the burial remains, the artefacts and their interpretation. The long delay between excavation and publication allowed modern techniques, greatly expanding the information obtained.

The report has an extended discussion of the excavation and post-excavation methodology and nature of the record (Cool 2004, 9-18). Since the excavations took place almost 40 years before the publication of the results, problems relating to the level of recording and survival of the excavated material have been encountered. This section is invaluable as it gives the reader a clear indication of the advantages of the work, such as the benefits of modern analytical techniques, and its limitation, such as the absence of environmental samples (Cool 2004, 9). This information is important to those, such as myself, who are using parts of the data as evidence for specific funerary practices. Most researchers cannot always check the primary record, and therefore must, therefore, accept the information in the publication as accurate. How the data is being used and analysed can be adapted by taking into

consideration a discussion such as this. Cools discussion clearly shows the gaps and problems.

These problems are very similar to those experienced during data-collection in this work and have been influential, resulting in the inclusion of an extended methodological discussion within Chapter 1. In addition, a discussion of potential problems relating to the datasets from each of the study regions have been included within the introductions to chapters 4, 5, 6 and 7. This gives the reader a clear indication of my approach to the analysis and how potential problems were minimised.

The main bulk of the publication concentrates on the layout of the cemetery and the features encountered. It is here especially that the discussion of non-burial features suffers from the lack of information, since it appears that these features were abandoned in order that more of the burials could be excavated (Cool 2004, 25). Linear stone built features and cobbling layers were identified, but formed no pattern (Cool 2004, 27). An inventory of deposits and correlation with newly assigned contexts has been included (Cool 2004, 41), prior to the individual discussion of the burial remains (Cool 2004, 46-265). These discussions are extremely detailed, including phasing, osteological information, interpretation and separate discussion of pyre and grave-goods, a key distinction which is vital for this study but not always presented.

The discussion of the pyres and biers has benefitted from the delay in publication. It allowed for the re-examination of the charcoal and burnt remains in the wake of advances in identification and classification of charred remains (Cool 2004, 267). This showed that birch and alder were the main source of raw material for fuel, while bone and antler veneers indicated decorated biers were sometimes included (Cool 2004, 272-273). This is an important development in the way that excavation material is utilised for publication. Rather than simply a discussion of the remains with interpretation of the finds, there is an attempt to interpret funerary ritual and resulting burial practice, with a clear distinction between pyre and grave-goods. This distinction is not frequently made but hints at a very interesting avenue for

investigation. In direct response to this, burnt coins are noted within the relevant parts of chapters 4-7.

Cool's discussion of personal ornaments and other equipment was also influential. It became clear in this PhD that the contexts in which the coins are found, and the associated artefacts, are as important a consideration as the coins themselves, especially when looking at the pierced examples. Cool illustrates that distinguishing between functional items and those of religious significance is important, especially when an artefact can be attributed to both (Cool 2004, 400).

The detailed catalogues and wide-ranging interpretation make this an important cemetery excavation report. Finding criticism is difficult considering that the publication was restricted by the amount of information available for study. One area which could be usefully expanded is the discussion of the personal ornaments. A strength of the earlier sections of this work is that interpretation is left open, allowing for more wide-ranging thought on the subject; but in this section explanation is much less speculative, erring more on the side of caution. I do not feel that this allows for a full discussion, especially considering the transcendent function of objects. However, to accomplish this would require a departure from the aim for the publication and perhaps not achievable in the confines of the work.

The eastern cemetery of Roman London: Excavations 1983-1990 (Barber and Bowsher 2009)

Publication of the 1983-1990 excavations of the eastern cemetery of Roman London (Barber and Bowsher 2009) differs from the previous reports in the method of dissemination of information. It was originally published as a monograph in 2000, but in 2009 became available as part of the 'archaeology data service', an online database (http://archaeologydataservice.ac.uk/), with the intention of updating the records as post-excavation work progressed.

The format of the publication is very similar to the previous examples in that it begins with a brief summary of urban Romano-British cemeteries and Roman London (Barber and Bowsher 2000, 2-3) and a discussion of methodology (Barber

and Bowsher 2000, 3-7). The latter is much more detailed than in the previous examples, but this is to be expected considering the report includes material from 11 different sites. The remainder of the volume is slightly confusing in its arrangement. It jumps straight into study of funerary ritual in relation to cremation and pyre remains (Barber and Bowsher 2000, pp. 60-81). This is an extremely important and innovative study, not something which had been previously attempted, and it can be understood why the authors would want it at the forefront of the publication. However, the discussion would have been more accessible and easier to understand had it been positioned after the description of the evidence, i.e. after Chapters 4-6.

Despite this confusion, some interesting observations have been made which have been influential in the analysis within this PhD. For example, a discussion of pyre offerings is not often attempted, Brougham being a notable exception (Cool 2004). As discussed by the authors, evidence for pyre offerings is difficult to find, but fortunately it can be identified in London (Barber and Bowsher 2000, 69). It is proposed that, like the human remains, not all of the objects are collected for burial (Barber and Bowsher 2000, 69). Before reading this report I had not considered the distinction between coins as pyre offerings and coins as grave goods, and consequently changed my approach to look specifically for burning in the description of coin condition.

As discussed earlier in connection with Clarke (1979), I found the analysis of objects in the fill extremely influential; especially since data collection provided a great deal of evidence for coins in grave fills (see section 7.10). This concept is briefly mentioned in this volume, although bone was the predominant find in the fills (Barber and Bowsher 2000, 78). Interpretation concentrates on possible ritual fills of pit features, rather than graves themselves, with no discussion of what this practice means in relation to burials and how it should be interpreted in regards to ritual and belief. A number of possible interpretations have been suggested in this work (see section 7.10), which are intended to be the foundation for future studies.

As with the previous cemetery reports, the final discussion is the most important for those studying burial ritual. This work uses the evidence to explore funerary rites,

how this relates to burial practice, evidence for Christianity and status of the deceased (Barber and Bowsher 2000, 298-333). Most relevant to this PhD is the analysis of religion and superstition, in particular afterlife belief. This section concentrates on those items deposited in the burial which are specifically related to afterlife belief (Barber and Bowsher 2000, 322-323). For example, the 'pecten motif' inscribed on one of the coffins might indicate the journey to the afterlife, snake-head jewellery may have been included for "apotropaic and chthonic symbolism" and, of course, coins may have been payment to Charon (Barber and Bowsher 2000, 322). These extremely interesting observations are unfortunately not analysed in any detail. This volume overall contains a good catalogue and good specialist analysis, but the discussion is often superficial.

The online archive comprises the primary site records, site plans, environmental reports, specialist finds reports and osteological reports, all downloadable in PDF format (Barber and Bowsher 2009). The benefits of this system are clear. As a follow-up to the original publication, online access provides a method by which the reader can keep up to date with recent developments on the site. It is much quicker than waiting for a second publication and is much more accessible as it is free and can reach a wider audience than a book might. The main problems with this method are that the reports are in a very raw state since they are not integrated into any wider discussion. This can make the information difficult to understand and utilise if the reader is not familiar with the relevant terminology. Nevertheless, the Eastern Cemetery at London is a good example of how online publication can be used advantageously.

Summary

These works are good examples of innovative approaches to cemetery excavation reports. Clarke (1979) illustrates the important step from a purely descriptive to an analytical approach, creating a comprehensive report which is rarely equalled even today. The corroboration of the results using new analytical techniques by Booth (2010) demonstrates that early reports still have their merit, and also show the benefits of re-analysing cemetery reports in light of new evidence. The Brougham report is one of the most innovative of recent excavation reports, giving wide-ranging

interpretations of the data, and advancing several new ideas. The final example of the Eastern Cemetery at London shows a possible method of publishing a large database, with online updates; a method of publication which takes good advantage of recent developments in the internet age.

2.3 Interpretation of burial practices

This section briefly reviews those works that have attempted to analyse burial practices over large area, using a large dataset, or those, such as Eckardt's 'Illuminating Roman Britain' (2002), where analysis of a single aspect of material culture included extensive discussion of burial data.

Classical religious belief and burial practices in Roman Britain (Alcock 1980)

One of the first studies to attempt to analyse the impact of Roman contact on local burial practices was that of Alcock in 1980. The work offers a brief overview, with discussion, of burial practices, concentrating on evidence for classical deities within the grave assemblage, symbolism on tombs and tombstones, grave goods and funerary banquets. Alcock's aim was to highlight which aspects of the burial process can be identified as influenced by Roman religion (Alcock 1980, 50).

Alcock's methodology includes a brief survey of those classical deities which could be connected with death and burial, and gives specific examples of deities represented within burial assemblages (Alcock 1980, 50-53). For example, pseudo-Venus statuettes might be connected with women who died in childbirth and are found in tombs in Carlisle, York and Kent (Alcock 1980, 52). Unfortunately she does not offer any quantification of the age and sex of those graves which contain such statues, which might have given evidence to support his assumption. Similar observations, with examples, are also made concerning Hercules and Minerva, who might have been included for protection of the deceased (Alcock 1980, 51). This discussion forms the foundations for further work on the subject and is a theory which is continuing to be updated; for example, by Eckardt, in connection with the figurines in the child burial at Colchester (Eckardt 1999).

The symbolism on tombs and tombstones is also considered (Alcock 1980, 53-55), although there is significantly less evidence available. She begins with a discussion of those tombstones which reference deities of the Underworld. For example, the spirits which inhabit Pluto's Acherusian realms are referred to in an inscription found in York (Alcock 1980, 53; RIB 684). Images on tombstones such as the hammer (representative of the closing of the tomb ceremony), sea creatures (representing the journey to the afterlife) and pine cones (symbol of mourning or immortality) are also mentioned, with reference to specific examples. This is an interesting survey but one which lacks discussion. Moreover, there is no attempt to quantify the data nor to give a more complex discussion of the meaning of the symbols.

Different types of grave goods are also discussed including coins, charcoal, lamps, bronze objects, glass items, gemstones and ivory, to name but a few (Alcock 1980, 36-62). There is no clear indication why these specific items were included, other than perhaps the author's assumption that they appear because of contact with the Roman world. An attempt is made to quantify the information pertaining to coins in burials, although not the other items. Three graphs have been produced which show coins found in the mouth, coins within graves, within cremations, and changes over time (Alcock 1980, 53). The significance of this work would have been greatly improved by comparable observations for the other grave goods. What it does highlight, however, is the potential of a more detailed study of these items individually.

The latter part of the article deals with funerary banquets and the remains in the archaeological record (Alcock 1980, 63-64). Using evidence from literary sources and archaeology, Alcock discusses funerary banquets at the graveside and pipe burials for periodical nourishing of the dead (Alcock 1980, 63). As with the previous sections, she gives a survey of examples, including at Colchester, Caerleon and Chichester (Alcock 1980 63-64). Observation and interpretation is again rather limited in scope, simply attributing these activities to the "survival of the soul" in the afterlife (Alcock 1980, 64).

Although potentially interesting, the observations made in this article now appear rather superficial. It is acknowledged in the introduction that it was not the aim to provide a detailed study of Roman burial practices (Alcock 1980), but by attempting to incorporate so many different aspects of the funerary process, it is more of a description of the evidence as opposed to interpretation of its significance. Interpretation, where it is present, is limited; for example, Minerva figures were included because this deity conquers death (Alcock 1980, 51), while lamps provided a link between the living and the dead (Alcock 1980, 61). This does not allow much variation in practice and belief to be identified.

Nevertheless, interesting observations have been made. The detailed study of the coins, although creating a rather uneven and disjointed analysis, highlights the merits of a more thorough investigation of all grave goods. One benefit of this work is that it shows the range of material available for study and, as one of the first to look at the changes in funerary practice caused by Roman influence, gives a foundation for more detailed examinations.

Burial Practices in Roman Britain (Philpott 1991)

A significantly more thorough publication of burial practices in Roman Britain was produced by Philpott in 1991; it has become the standard reference text for all cemetery and burial studies (Philpott 1991). This work is an informative analysis of grave treatment and furnishings during the Roman period, c. AD43-410. It is extremely detailed and well-organised, attempting to cover all types of burial and possible furnishings.

The introduction covers problems such as access to published material, poor recording in early publications, and biases towards richly furnished burials. Exactly such problems were encountered in the current work (see chapter 1).

The section on the Iron-Age background (Philpott 1991, 6) gives a summary of inhumation and cremations within late Iron-Age contexts, included to give a background to the Roman practice. This was an important consideration for this

thesis, as I wanted to illustrate that the deposition of coins in burials was not a Roman invention.

The main bulk of the publication is divided into two separate sections. The first section looks initially at cremation and the differing types of cremation burials, from cists, to wooden and glass vessels to *in situ* cremations. This is followed by a similar study concerning inhumations, including the position of the body in the grave and decapitation. Separate analysis of these burials types is an important move forward in interpreting funerary remains, and something which has been attempted in this work.

The second section of the book looks specifically at the grave goods, including discussion of pottery, glass and metal vessels, personal ornaments, amulets, footwear, knives, combs, lamps, animal remains, coins and other equipment (Philpott 1991, 103-216). Each item is discussed separately with reference to its distribution (geographically and chronologically), while discussion sections allow for interpretation of the patterns observed, reasons for the inclusion of the item in the burial and whether these were native or intrusive burials. Links between the sex and age of the deceased and the burial custom are also explored. This section allows for the individual study and interpretation of each of these grave good types, highlighting where patterns occur and could be usefully looked at as part of future research.

A discussion section at the end of the book attempts to bring all the data together, and to give a general overview of burial practices. Key questions which have been introduced throughout the work, are discussed in the context of the evidence, such as the continuation and/or fusion of native and Roman practices (Philpott 1991, 218), the complexity of cremation (Philpott 1991, 217, 220), interpretation of afterlife beliefs from grave goods (Philpott 1991, 235) and the role of Christianity (Philpott 1991, 239). These discussions are not hugely detailed but do highlight major questions pertaining to the interpretation of the funerary process in regards to the items deposited.

Overall this work represents a considerable undertaking incorporating a significant amount of data, covering the whole of Roman Britain geographically and chronologically. Its strengths lie in the detail which it provides for the variety of burial types and furnishings. The quantification of cemetery excavation reports, looking at changes in practice over time and space, gives a detailed picture of the data available and highlights possibilities for future study. However, one might question the attempt to cover such a large range of material over such a long time period since this does not allow for a detailed discussion of the findings. The discussion raises big questions, but the answers cannot be adequately detailed. Nevertheless, it succeeded in its aim to be a survey of burial practices, and is the foundation of further study.

Illuminating Roman Britain (Eckardt 2002)

'Illuminating Roman Britain' is a comprehensive study of lighting equipment in Roman Britain (Eckardt 2002). Its basis is a quantitative analysis of all evidence for lighting equipment within the study area, such as lamps and candlesticks (of all materials), undertaking a typological, chronological and spatial analysis of their occurrence, based on contextual evidence (Eckardt 2002, 27). This data are then used to investigate wider themes such as identity and social activities (Eckardt 2002, 15). The main aim of the publication is to 'combine a material-based study with an explicitly theoretical and contextual analysis' in order to produce new approaches to Roman material culture (Eckardt 2002, 15). This is a good example of recent, contextual approaches to artefacts.

The analysis begins by looking widely at the subject, dividing the material by site type (military, London and Colchester, other towns, rural/ villa and unknown) and by date in order to identify patterns in the data (Eckardt 2002, 33). The difficulty with the interpretation of any patterns identified should be noted. It can be unclear whether changes in artefact use are a result of social change, economic factors or supply (Eckardt 2002, 36). A focused comparative study of the artefacts in context can go some way to minimising these problems; can further patterns in the data be identified or is the evidence contradictory? Eckardt uses the case-studies of Colchester and London; the former to examine the relationship between the use of

two contemporary lamp types across a number of sites of different status, and the latter to look at changes in lamp type over time (Eckardt 2002, 61). This proved effective, although the lack of data from London did hinder the results.

The influence of this part of Eckardt's analysis is clear in this PhD thesis. Examination of the artefact in its context is paramount. The current study tries to present a contextual and comparative analysis of coins in burials, to identify patterns which move interpretation away from antiquated assumptions and towards the realisation that the use of this artefact is a much more complex phenomenon (*cf.* Eckardt 2002, 133).

The analysis of the ritual use of lighting equipment is another interesting comparison and parallel to this work. Its function in a 'ritual' context can be difficult to determine, since, in the case of the lamps, there is no strictly functional difference between the 'ritual' and 'profane' use of the object (Eckardt 2002, 95). A similar problem has been encountered in the case of coins, where the possibility that they were placed as a monetary contribution for the afterlife must be considered. Consideration of the images on the artefacts is one method to approach any religious meaning. Eckardt uses the motifs on the lamps to put the images in a 'wider art historical context' and identify whether the images have any bearing on their use (Eckardt 2002, 117). A similar undertaking was attempted using the reverse images on coins within this work. Unfortunately it was impossible for Eckardt to do more than identify consistency between the images used throughout the Empire, such as the popularity of Hercules and horses, and there was nothing to suggest a connection between the images and its use (Eckardt 2002, 132-133).

It is difficult to offer substantial criticism of the methodology and results of this work, as it is very useful. It achieves the aim to give a detailed analysis of lighting equipment in Roman Britain within a wider social and economic context. Its real merits will be fully recognised when it can be examined in the context of similar studies. As chapter 6 has highlighted, in the case of coins, the British evidence does not always follow the overall trends. It would be useful to know whether lamps are the same. Nevertheless, this is an important work which shows that contextual

analysis can produce interesting results, and sets out potential guidelines for similar studies.

Summary

These three works show an evolution in the approach to burial practices. As one of the first to attempt to tackle Roman burial practices, Alcock (1980) sets the groundwork for analysis and interpretation. Although superficial, she showed the potential for a more detailed analysis. This is illustrated perfectly by Philpott's (1991) successful survey of Roman burial practices. Eckardt's extremely thorough study of lamps and lighting in Roman Britain (2002) illustrates the benefit of looking contextually at one aspect of material culture.

2.4 Coins in burials

This thesis is not the first to attempt to tackle the topic of the deposition of coins in burials. A number of notable articles and books have been published have attempted to quantify the practice and understand its significance.

The ferryman and his fee: A study in ethnology, archaeology and tradition (Grinsell 1957)

One of the first articles to look specifically at coins in burials was that by Grinsell, published in the journal 'Folklore' in 1957 (Grinsell 1957). This work attempted to use the literary and archaeological evidence to make a detailed study of Charon and his fee. He begins by discussing the ethnographic parallels for the Charon myth, citing examples from Burma, Australia, New Zealand, Polynesia, and Central America (Grinsell 1957, 257/258). The paper then discusses the origin of the ferryman in Egyptian belief, also looking briefly at the pyramid texts and the use of boats in burial ritual (Grinsell 1957, 258-260). The article focuses on the Greek and Roman incarnations of the myth and concentrates on the archaeological evidence from Roman Britain.

This important work looks at the evolution of the ferryman in afterlife mythology and sets out a possible methodology for future. Some are reflected in my approach, such as examining the origins of the ferryman and ethnographic examples.

Unfortunately Grinsell includes very little archaeological material, and his analysis comprises only a superficial discussion of the evidence from Roman Britain. The paper gives an overview of the evidence for Charon mythology but does not challenge the 'Charon's obol' interpretation or look for alternative explanations for coin offerings in burials.

Studien zur Sitte der Münzbeigabe in römerzeitlichen Körpergräbern zwischen Rhein, Mosel und Somme (Gorecki 1975)

One of the first archaeological studies of coins in burials was undertaken by Joachim Gorecki (1975). This is an archaeological study specifically concerned with the location of the coin in the grave, focusing on inhumations. His database contains 492 burials from the areas of the Rhein, Mosel and Somme.

The work begins with an assessment of the current state of research, which emphasised the lack of systematic investigation (Gorecki 1975, 190). In this work it is assumed that the custom originated in Greece (1975, 192) and the 'Charon obol' interpretation comes from the literary sources (Gorecki 1975, 191).

The burials were divided into those containing a single coin offering, those that contain between two and four examples, and those that contained five and more. They were further subdivided by position, with consideration of the burials with the coins found in the mouth, on the eyes, in the area of the head, on the chest, the upper body and arms, the hand, the legs, the feet, those in vessels and those in the fill. Gorecki hypothesised that single and multiple coins had different meanings, as did those placed at specific points of the body (Gorecki 1975, 236). If a single coin can be attributed to payment to Charon, the multiple coins might mean something else. These differences were attributed to ethnic, cultural, religious, social and personal circumstances, which varied greatly across the Roman Empire (Gorecki 1975, 231).

Interpretation of the results is presented in a section looking at the function of the coin(s) when found in each of the different locations. It is concluded that single coins placed in the mouth or the hand can be considered payment to Charon. They could also be interpreted as a defence against evil forces or a method by which the living

could prevent the ghost of the deceased from rising from the grave (Gorecki 1975, 248). Pierced examples are seen as jewellery items and the high percentage found in female burials is noted (Gorecki 1975, 249). Coins found in purses, pockets and boxes are not linked to any form of payment and are instead seen as personal objects belonging to the deceased, intended for use in the afterlife (Gorecki 1975, 259). Where the deposits include a large number of coins, these could be viewed as collected and given to the deceased by a close relative (Gorecki 1975, 266). Evidence for specific coin choice was more difficult to pinpoint, although there was an attempt to suggest this on the basis of reverse legends (Gorecki 1975, 274/275). This was followed by a study of the chronology of the coins divided by century.

Overall, this work is extremely important for the study of coins in burials. It was the first to look at the coins in the context of the burial, using a larger database to identify patterns and offer alternative explanations for the presence of coins. It has limitations. It looked only at inhumations, which restricts the data collection to the late imperial period, with only a few earlier examples. Geographically, the study encompasses a small part of the Roman Empire, namely the Rhine in Germany; the patterns observed need to be compared to other provinces to identify how they fit into a wider study. This thesis builds upon this work, by comparing different provinces to help understand the spread of the custom and differences in the practice which occur; Gorecki provides an excellent starting point.

Charon's fee in Ancient Greece – Some remarks on a well-known death-rite (Grinder-Hansen 1991)

More recently Grinder-Hansen (1991) has concentrated on the deposition of coins in burials in Greece, using a similar methodology. He considers the frequency of coins, their numbers and selection, the location in the burial and a chronological framework for the practice (Grinder-Hansen 1991, 207). This is an important step forward in the analysis of coins in burials, as Grinder-Hansen realises that it is no longer appropriate just too simply give an overview with literary references to the custom: a much more detailed analysis is required.

Instead of 'Charon's obol he refers to 'death-coins' which is an important development in terminology (Grinder-Hansen 1991, 211). The use of archaeological material is much more developed than in the previous studies and begins by discussing the appearance of Charon on 5th century BC white lekythos (Grinder-Hansen 1991, 210). Most notable in this analysis is lack of representation of the fee. Grinder-Hansen does draw attention to a 'dubious example of a lekythoi' which shows a coin in the hand of the deceased, although the authenticity of this example is in question (Grinder-Hansen 1991, 210).

The advances in this analysis are obvious. He rightly observes that previous studies have not looked at the practice in enough detail, and notes the need for a more systematic analysis of the archaeological data. The use of the term 'death-money' as opposed to 'Charon's obol' is also important as it allows for variation in interpretation. Although putting forward an improved methodology, it could have been improved by looking at more examples from a wider geographical area.

Parola del Passato (Cantilena et al. 1995)

The other key work to look at coins in burials from an archaeological perspective is a collection of papers in vol. 50 of the journal '*La Parola del Passato'* (1995); part two is dedicated to the placement of coins in burials. Although concentrating on the Greek deposition of coins in burials, the interpretations and methodologies are not very different when considering the Roman period. The most pertinent of papers in this work is '*Un Obolo per Caronte?*', which looks at the problems with current interpretation of this phenomenon, questions the use of the phrase 'Charon's obol' and suggests a methodology for interpretation (Cantilena 1995, 165-167).

The paper suggests the replacement of the phrase 'Charon's obol' with a more neutral term, such as 'money of the dead', since the connotations associated with the former can be misleading (Cantilena 1995, 165). The aim is to broaden understanding of the custom by entertaining alternative interpretations; for example, the coin could be fare for passage, a status marker, or deposited by mourners as respect for the position that the deceased held in life (Cantilena 1995, 166). Cantilena also believes it is necessary to try to determine, through analysis, the belief in the

afterlife of individual groups before considering the role of coinage in that society (Cantilena 1995, 167). It is only with all this information that a more informed explanation could be attempted.

This volume, especially the introductory paper, is extremely useful for this thesis. It shows the introduction of fresh explanations for the phenomenon and outlines a new possible method of investigation. Although it relates more to the Greek world than the Roman, the information can be tested in both contexts. Some aspects of the methodology have informed the current, such as the examination of afterlife belief in the society studied and the use of individual cemeteries. The case study papers attempt to look at coins in the context of the burial at each of the sites, but there would have been merit in the comparison of data from all sites to look for patterns and anomalies.

2.5 Conclusion

An evolution in methodology can be seen throughout each of these works. The excavation reports have moved away from simply listing the results of excavation to including interpretation of the evidence. Similarly, discussions of burial practices now include more comprehensive contextual analyses of data collected. The publication of works such as 'Illuminating Roman Britain' has highlighted the benefits of looking specifically at one aspect of material culture, giving an insight into the society to which it belongs.

In regards to coins in burials, a number of possible methodologies have been tested: using only literary evidence, using only the archaeological evidence and using information from both sources. In my opinion, the most effective method is to take into consideration the information from the literary sources, as it provides an insight into that society, but not allow it to regulate or dictate interpretation. Separate analysis of the archaeological evidence is key, using the results to provide wide-ranging alternative explanations as to the function of the coin.

This PhD starts from a solid understanding of the data, and current best practice for contextual approaches. A dataset of c. 500 burials from each of the four case study

areas has been created and analysed for patterns and anomalies (chapters 4-7). The results are used to suggest a range of possible explanations for the function of the coin in burial ritual (chapter 8). It is hoped that this methodology will result in a much more comprehensive understanding of the custom by introducing new ideas; and perhaps the approach, or parts of it, can be effectively used in future studies of other aspects of burial ritual.

Chapter 3 – Ferryman mythology and the origins of Charon

3.1 Introduction

As discussed in Chapter 1, coins in burials are most often summarised in a single sentence, attributing their presence to payment of the ferryman for transport across the River Styx to the afterlife (for example Kurtz and Boardman 1971, 163; Toynbee 1971, 44; Hope 2009, 71). This is an interpretation based on the Greek and Roman literary sources, although the ferryman has much older origins. Since the image of the ferryman and his mention in literary sources are so fundamental to the interpretation of coins in burials, it is the aim of this chapter to give a background to this mythology. It is structured to examine the origin of the ferryman, his evolution in the Greek and Roman literature and the longevity of the custom. This is not intended to be an exhaustive list of all mentions and/or depictions the ferryman, nor is it supposed to be an in depth literary discussion of Charon in classical literature; it is included to give a context to understanding the current misleading interpretation of coins in burials.

3.2 Reciprocal agreements and afterlife boat mythology

The boat and a ferryman in afterlife mythology are not limited to the Graeco-Roman world, nor is the notion of payment in return for safe passage to the afterlife; the origins for these can be traced back much further.

This chapter cannot take into account every possible origin for ferryman mythology. Instead, this section will assess the validity of two theories that have arisen concerning the origins for the boat and precursors to coin offerings in burials. The first is in ancient Egypt (Wilkinson 1996, 377) and the second in the Near East (Lipiński 2003, 299). By looking at the suggestions for the emergence of the belief in the infernal waters and the ferryman mythology, evidence may also be provided for the origin of the payment of a toll.

3.2.1 Near East

In his discussion of Phoenician cult expression in the Persian period (6^{th} – 4^{th} centuries BC), Edouard Lipiński discusses burial practices, which includes reference to grave goods (Lipiński 2003). He subdivides the grave goods into those belonging to the deceased which were used in everyday life, such as clothing, jewellery and amulets and those which were included as 'furnishing' for the afterlife (Lipiński 2003, 299). The coins are interpreted as part of latter category. Lipiński gives examples from the site of Kāmid el-Lōz where nine burials contained coins originally interpreted as being placed in the mouth of the deceased, and argues that this parallels the Charon obol myth (Lipiński 2003, 299). He goes further to argue that the origins for this mythology are not Greek and in fact the ferryman parallels Ur-shanabi in the Epic of Gilgamesh (Lipiński 2003, 299). He argues that the placement of the coin is the evolution of an older form of currency, such as a cock. His evidence for this was the discovery of the skeleton of a 'fowl' in Tomb 1 at Kāmid el-Lōz (Lipiński 2003, 299).

To analyse the validity of Lipiński's statement, this section will briefly outline the burial process and afterlife in the Near East, before looking specifically at the Epic of Gilgamesh. To what extent is it possible to attribute the origins for Charon mythology to this part of the ancient world?

For burial, the deceased could be covered in a shroud or wrapped in reed mats and possibly also placed in a reed, wooden or clay coffin (Cooper 1992, 23; Davies 1999, 57). Evidence for this has been found from the site of Labib Habachi, dating to the early dynastic period in the Near East, dating to c. 2900 BC (Cooper 1992, 23/24). Grave goods were also included in the burial for the use of the deceased and for sacrifice to the deities of the netherworld (Cooper 1992, 24). Very little is known about Early Dynastic theology, and more specifically about funerary beliefs and practices. Evidence for Mesopotamian beliefs in death, burial and the afterlife are "unevenly scattered over 2,500 years of history" (Cooper 1992, 20) making interpretation difficult.

One belief was that the "ghost of the deceased entered a liminal phase" where it was believed that the soul was "in transit" (Cohen 2005, 101). Evidence for the journey to the afterlife comes almost exclusively from the Epic of Gilgamesh, where the deceased must traverse a river barrier with the aid of a ferryman. Cohen warns that since the epic was written in the 7th century BC, the evidence is "unlikely to reflect ED [early dynastic] practices" (Cohen 2005, 100). This makes it difficult to ascertain when the belief in the ferryman was established as it is almost impossible to know "if something documented in one period is valid in another" (Cooper 1992, 20). Once the deceased reached the netherworld, they were given a place within society, where they continued to exist much as they had done in the living world (Cohen 2005, 102). There is also the suggestion that the deceased could make contact with other dead members of their family or friends (Cohen 2005, 102).

The Epic of Gilgamesh is complex to unravel as the text is reconstructed from "several different periods in several different languages" (George 1999, xv). Some of the earliest evidence for the Gilgamesh epic is the 'Sumerian literary tablets from the schools of eighteenth century Babylonia' (George 1999, xx). These are few and fragmentary, forming 'separate and individual' stories, nothing compared to the later epic (George 1999, xix).

Figure 1: Extract of text from the Death of Ur-Nammu (Kramer 1967, 105)

What is most frequently used for interpretation is the standard text which comprises 73 manuscripts; 35 of these have survived from the libraries of King Ashurbanipal at Nineveh, eight tablets come from the Assyrian cities of Ashur, Kalah and Huzirina and 30 from Babylonia (George 1999, xxvii). Given the dating of King Ashurbanipal to between the mid and late 7th century BC, these are the earliest written of the standard texts, the latest written dates to c. 130BC (George 1999, xxvii). Unfortunately, the Epic is not complete. Some information has filled using older texts, but there are still large gaps, and interpretation/reading of the text is based on the information which we currently hold. George argues that our understanding of the text might change dramatically if more was discovered (George 1999, xxviii). What this serves to show is the difficulties with making interpretation for the origins of the ferryman using only this text. It is impossible to attribute the origins of the ferryman to a particular period, we must interpret the evidence as belonging to the 7th century BC, with the possibility of earlier origins, but these cannot be confirmed.

Nevertheless, the information provided in the epic does show an established belief in a river that must be crossed to the afterlife and an associated ferryman.

The crossing is perilous, its way full of hazard,
and midway lie the Waters of Death, blocking the passage forward (83-84)[5]

So besides, Gilgamesh, once you have crossed the ocean,
when you reach the Waters of Death, what then will you do?

[5] Unknown author (Translated with an Introduction by Andrew George 1999). *The Epic of Gilgamesh: The Babylonian Epic Poem and Other Texts in Akkadian and Sumerian*. England: Penguin Books. pg. 78

Gilgamesh, there is Ur-shanabi, the boatman of Uta-napishti... (85-87)[6]

Both these passages illustrate a belief in a water barrier to the afterlife/netherworld. The first gives the name of the barrier the 'Waters of Death' which is situated half-way through the journey. The second quote gives the name of the ferryman, Ur-shanabi, whose task appears to be the safe transport of souls. As argued by Lipiński, Ur-shanabi performs a very similar function to that of Charon (Lipiński 2003, 299). However, there is no mention of a fee to be paid for his services.

There is, however, evidence for the payment to other deities in the story of the 'Death of Ur-Nammu and his Descent to the Afterlife'.

The righteous king – his heart "knew" the gods of the netherworld,
The king offers the gifts of the Netherworld as sacrifices (83-84)[7]

This passage implies that gifts to the afterlife deities were necessary for the deceased's continued existence (Kramer 1967, 111). Again there is no mention of a payment to the ferryman as part of this.

Overall, the Epic of Gilgamesh could be seen as an origin for the Charon mythology but only if it could be confirmed that what is written in the 7th century BC is what was also believed at an earlier date. As will be demonstrated in the following discussion of Egypt, evidence exists for much older origins. Lipiński's suggestion that the inclusion of coins was a parallel to the Charon myth (Lipiński 2003, 299) is a possibility and the comparison between the ferrymen is legitimate. However, there is no mention of any type of payment to the ferryman in the Epic of Gilgamesh. Granted, the payment could have been a later invention but there is no concrete evidence for this. The further suggestion that the coin is an evolution of an older form of currency is also entirely possible, but the link to the payment of a ferryman to the afterlife is speculative at best.

---

[6] Ibid pg. 78/79
[7] Kramer, S. N., 1969. *The Death of Ur-Nammu and His Descent to the Netherworld.* 'Journal of Cuneiform Studies', Vol. 21: 104-122. pg. 118

3.2.2 Egypt

The second suggestion for the origins of boat mythology for the journey to the afterlife was Egypt. Wilkinson in his assessment of the funeral rites of the Ancient Egyptians makes specific reference to Charon mythology (Wilkinson 1996). He draws parallels between Horus represented as the steersman of 'the sacred boats of Egypt' and the function of Charon in Greek mythology, and goes further to suggest that the placement of the coin in the mouth of the deceased was borrowed from the gold or silver plate put into the mouth of the dead by the Egyptians at Abydos (Wilkinson 1996, 378). This seemingly clear connection requires some examination. To what extent can the origins of the boatman mythology be linked with Egypt, as opposed to the Near East?

To untangle ancient Egyptian theology would be far too complex to attempt here. Therefore, this section will look at the mythology surrounding the journey to the afterlife in ancient Egypt, looking exclusively at the use of the boat and the ferryman and the associated problems with interpretation. Reference will also be made to the Egyptian sources which discuss the journey of the deceased. Further considered is the Greek contact with the Egyptian world and the literary sources which discuss the cultural and religious relationship between Greece and Egypt.

Sources for information on the journey

The earliest sources for the reconstruction of the topography of the Egyptian underworld and the journey there are the Pyramid texts of the Old Kingdom and First Intermediate Period, c. 2686-c. 2055 BC (Johnson 1978, 139; Oakes and Gahlin 2002, 400) and the Coffin texts of the Middle Kingdom of c. 2055 BC (Johnson 1978, 139; Oakes and Gahlin 2002, 402). These can be found painted on the sides of tombs and carved into sarcophagi. The papyrus texts known as the Book of the Dead were introduced at the end of the Second Intermediate Period and the New Kingdom, c.1550 BC (Johnson 1978, 139; Oakes and Gahlin 2002, 404). From the Middle Kingdom, 'democratization' took place where there was the formalisation of the religion, giving opportunity for the ordinary Egyptians to use and rework the texts for their own burials (Johnson 1978, 131, 136; Oakes and Gahlin 2002, 404;

Verhoeven 1998, 483). It is at this point that Johnson argues a "growth in popular magic and gross superstition... then individual conscience made its own adjustments to the idea of god, cults inevitably developed on class lines" (Johnson 1978, 131), suggesting again that the beliefs of the upper classes (for which we have the most information) may not be representative of the lower ones.

In addition to the literary texts, archaeological evidence dating to the Predynastic period, is also available for the belief in boat travel to the afterlife. Verhoeven draws attention the boats placed in burials which are intended to symbolically transport the dead to the afterlife (Verhoeven 1998, 482). These models were representative for the living, like other objects such as food, and designed to play an active role in the journey to and life in the Netherworld.

Problems with interpreting the evidence

The main problem with examining Egyptian afterlife mythology is the significant variation in belief and associated practice. Similar to the Greek and Roman afterlife beliefs, there is no single myth for the journey to the afterlife. This section concentrates only on the mythology involving the boat in order to find a possible origin for Charon mythology, but it must be understood that this is not the only method by which the deceased travelled.

Further problems arise considering that most of the evidence comes from royal tombs. The wealth of the grave goods, the sculpture, the texts and the paintings on the walls of the tombs tend to dominate the archaeological record and form the majority of the evidence. This evidence makes it difficult to distinguish between the beliefs of the upper classes and the everyday Egyptian. This is perhaps not significant in this overview, but a potential bias which should be considered if looking at this topic further. Murnane argues that the afterlife belief for the everyday Egyptian was not the cycle described in the Pyramid texts' (Murnane 1992, 42); suggesting that the boat mythology is mainly concerned with the upper classes in society. He argues that 'it was the underworld, where the dead god Osiris held sway' (Murnane 1992, 42) that was the main belief of the everyday Egyptian.

Ancient Egyptian belief in the journey to the afterlife

Egyptian society contained a complex cyclical theology based upon a belief in death and resurrection (Johnson 1978, 125). Although this is an over-simplification of a complicated system, identification of these concepts is fundamental to understanding the mythology surrounding death and burial, since each method of transport can be related to this. There was a variety of methods by which the soul of the deceased travels to the afterlife. These include "being wafted upwards with burning incense; climbing up a ladder formed by the outstretched arms of the gods" and "travelling on a reed float or barque that was sailed, rowed or towed" (Oakes and Gahlin 2002, 391). After death each Egyptian individual had to undergo a journey to and through the underworld, in order to get to those gods that would grant them eternal life. This world was "an eerie landscape of rivers, deserts, and lakes of fire, inhabited by demons and monsters" (Pinch 2002, 93). The geography of the underworld is drawn/ described in underworld texts, such as the Book of Gates and the Book of Caverns, which are interpreted as maps of the underworld (Pinch 2002, 24/25). Wilkinson, in his analysis of Egyptian deities and their associated mythology, talks about the gate deities (minor gods) which are depicted as guarding the barriers to the afterlife (Wilkinson 2003, 81). Twelve gates are described on a number of the tombs in the Valley of the Kings (Wilkinson 2003, 82). This provides an interesting parallel to the Etruscan journey (see section 1.4).

As Jones quite rightly points out it is difficult to find another civilisation, whether ancient or modern, which relies as heavily on a river for its subsistence, from growing crops to transport of raw material for trade to military expeditions (Jones 1995, 9). He goes further to suggest that considering the dominant nature of the Nile in everyday life, it is not surprising that it "profoundly affected their [the Egyptians] mental processes and religious thinking" (Jones 1995, 9). When related specifically to death and burial, a journey in a boat is the most dominant method by which to reach the afterlife, with frequent pictorial references on papyri or painted on tomb walls, showing the deceased lying in a barque.

One of main journeys, that include the mention of a boat and a possible ferryman, is described in the *Am-Duat*. The myth tells the story of the journey of the sun god Re across the night sky (i.e. the netherworld) in his sun boat (Oakes and Gahlin 2002, 326/7). The journey is considered a 12 hour process with each hour bringing about different obstacles to the crossing. For example, the first hour is concerned with the embarkation of the sun boat and its crew, which interestingly included a 'Guide of the Boat' (Oakes and Gahlin 2002, 326). Very little is known about this figure but it is generally assumed that he is a minor deity, one of a large crew of other minor deities e.g. Path-opener, which are entrusted with the safe keeping of Re as he travels the dangerous night sky (Oakes and Gahlin 2002, 326). Although he is not named, it could be assumed that the 'Guide of the Boat' is providing a similar psychopompal role as Charon in Greek mythology.

Ritualistic behaviour was also included in a number of the hours; for example, in the third hour he revived the god of the Netherworld, Osiris, but throughout the journey his crew are charged with protecting the god from his enemies such as Apophis "whose main aim is to swallow the sun" (Oakes and Gahlin 2002, 327/8). This myth is significant to death and burial as setting of the sun is "equated with death and sunrise with rebirth", therefore the journey of the sun across the night sky is associated with the journey to the afterlife (Oakes and Gahlin 2002, 329). This is further linked to belief in the afterlife as it was traditionally assumed that the Netherworld was situated in the heavens, close to the sun.

It is suggested that the "justified dead" could form part of the crew of the Boat of Millions (Jones 1995, 15; Pinch 2002, 94). In this case, the deceased souls could perform a number of tasks from "rowing or towing the sun boat or even defending it against the forces of chaos" (Pinch 2002, 94). Similarities can be seen between this and the 2nd century AD satirical story of Menippus and Charon in Lucian (Lucian, *Dialogues of the Dead* 2.22), where Menippus took part in the crew in the absence of an obol to pay his fare.

Ancient Egyptian literary references

An advantage in the study of Egyptian burial practices is the literature which has survived in the papyri texts and painted on the walls of tombs. The earliest of these are the *Pyramid Texts* inscribed on the walls of the royal pyramids of the Fifth and Sixth Dynasties (c. 2494-2181 BC), which were then replaced by the *Coffin Texts* painted on wooden coffins of the sarcophagi of the Middle Kingdom. In the New Kingdom these were replaced again by a variety of 'Books' e.g. *The Book of the Dead*, which had their origins in the original texts and continued to "develop the same theme" (Jones 1995, 14). As well as the depictions of the 'sun boat' and the journey of the deceased as part of the crew, there are prayers to the celestial ferryman, known as the *ferryman texts*. Can parallels be drawn between this information and the Greek evolution of the myth?

In some of the prayers the ferryman remains nameless, but in others, Horus is considered the 'Guide of the Boat'. The following examples are prayers to summon the boatman:

Oh Ferryman of the sky in peace!
I have come to you that you may ferry me across in this ferry-boat in which you ferry the gods...there is no one living who makes accusation against me, there is no-one dead who makes accusation against me... (Utt. 270; Faulkner 1969, 78)

It is [celestial ferryman] who ferries them across <to> me in company with [celestial ferryman]... (Utt. 520; Faulkner 1969, 194)

O [Ra], commend me to [celestial ferryman], the ferryman of the Winding Waterway, so that he may bring me his ferry-boat which belongs to the Winding waterway, to the eastern side of the sky, so that he may ferry me over to yonder side of the Winding Waterway... (Utt. 359; Faulkner 1969, 116)

In these examples, the ferryman remains anonymous, but it does show the requirement for the affirmation of his/her own character by the deceased to illustrate

his moral integrity and therefore guarantee a place in the afterlife. This does not appear to be something which is necessary for the Greeks and Romans.

Other examples refer directly to the deity Horus as the ferryman:

O Morning Star, Horus of the Netherworld...Take me with you in the cabin of your boat... (Utt. 519; Faulkner 1969, 192)

Horus is performing the function of the ferryman in this excerpt and in this sense parallels can be drawn between him and Charon; they both are performing a psychopompal role. It is interesting that no reference to a monetary fee is made.

Jones, in his analysis of boats in Egyptian culture, has also looked at the parallels between the ferryman in Egyptian and Greek mythology (Jones 1995). He argues that in some depictions of the journey to the afterlife, Horus is depicted in the role of "the Guide of the Boat" (Jones 1995, 14). Jones goes further to suggest that, unlike Charon in Greek mythology, there is not a financial payment because Egyptian ferryman was a more "fastidious character", which required the deceased to prove that they were a figure of moral integrity during their lifetime (Jones 1995, 13).

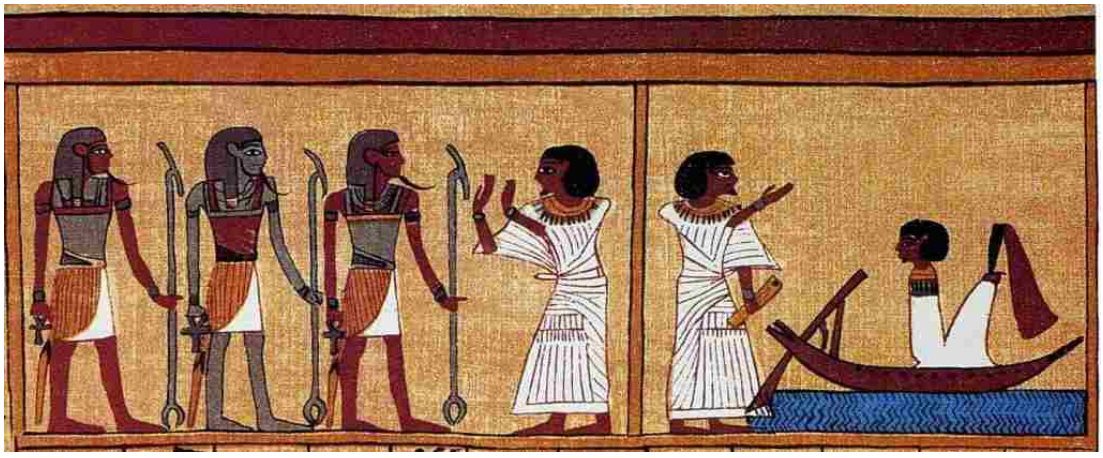

Figure 2: The ferryman in the Papyrus of Ani, chapter 93 (Goelet *et al* 1998, plate 16)

As discussed above, these texts are amongst the earliest, dating to between c. 2686-2055, and do indicate similarities between the ferryman of Egyptian society and

Charon in Greek mythology; therefore, could be considered a plausible origin for the ferryman. Close Greek contact can be identified from as early as the twenty-sixth dynasty in the 7th century BC and permanent settlement from c. 560BC onwards (Willeitner 2004, 313). It is possible that the Greeks who were trading with the Egyptians were exposed to this belief and some aspects were incorporated into their own theology. Unfortunately, it is not possible to be certain. What should be noted is the very big chronological gap between the Egyptian texts and Greek settlement. Ferryman mythology would have evolved over this period and if providing more than a background overview of the belief system, an analysis of this would be required. This is something to consider for future work.

Placement of grave goods as payment to the afterlife

The basis of Wilkinson's assertion for the parallels between Charon's obol and Egypt is the placement of gold and silver plates in the mouth of the deceased (Wilkinson 1996, 377). The parallels are clear, although it should be noted that they were not intended as a payment to the boatman but as a type of "passport" reflecting the honourable nature of the deceased (Wilkinson 1996, 377). This is similar to the practice of making offerings in the name of the deceased to Osiris in order to gain safe passage to the afterlife (Wilkinson 1996, 358). This can be viewed as a form of payment for safe passage to the afterlife, but it is not linked directly to the ferryman, instead the offerings are for the god of the Underworld so that the deceased would be accepted into his realm.

Other goods placed in the grave designed to ensure the safe transport of the deceased to the afterlife are models of boats. Only a small percentage of society, royalty and the upper elites, were able to include full size replicas of the 'sun boat' in their burial to 'serve as magical substitutes and thereby guarantee them a means of passage into the other world' (Jones 1995, 13), but smaller models were included in the burials of the everyday Egyptian for the same purpose. The importance of the boat and this journey to the netherworld is also highlighted in the scenes painted on the tombs in which the deceased takes a final pilgrimage (on a ship-shaped bier) to the sacred site such as Abydos, traditionally linked to Osiris, in order to gain favour with the god and ensure admittance to the afterlife (Jones 1995, 18). The models are designed to

Figure 3: Boat figure dating to the Predynastic Period, c. 3300 BC (Verhoeven 1998, fig. 108, pg. 482)

be representative to the living but could be used by the deceased. Figure 3 shows one such example, which dates to c. 3300 BC, the find spot is unknown. Grinsell places the placement of boats in burials as early as 3000BC, with evidence from the archaic cemetery at North Sakkarah (Grinsell 1957, 258).

Perhaps a further parallel is the differential positioning of amulets throughout the body. Ikram discusses amulet placement on different locations on the body in order to promote resurrection in the afterlife (scarabs) placed over the heart or protection (Eye of Horus) which could be anywhere on the body throughout the mummy wrappings (Ikram 2003, 95-97). Other amulets were used to provide luck, resurrection or healing and even replace lost limbs, but they were all essentially to aid the transport and well-being of the deceased in the afterlife (Ikram 2003, 95-100). As will be discussed further in the main body of this work, the coins in Roman burials are found at a number of different locations on the body. Can the origins for this also be seen in Egypt? Do the different locations have a different meaning?

Although there are similarities in practice, there is no evidence for offerings made directly to the ferryman of ancient Egypt. There is evidence for offerings in the name of the God of the dead for safe passage, and although the journey can be considered part of this, it is more likely that the offerings are specifically for entry to the afterlife as opposed to the journey there.

Greek Parallels, literary references

Within the Greek literature further evidence exists for the origins for the Greek religion in Egypt. Herodotus in book two of his 'Histories' maintains that the Greeks were indebted to the Egyptians, especially when it came to religion and associated ceremonies.

...Egyptians first brought into use the name of the twelve gods, which the Greeks took over from them, and were the first to assign altars and images and temples to the gods, and to carve figures in stone...They proved the truth of most of these assertions... (Herodotus 2.4)

The Histories were written between the 450's and 420's BC and suggest that in this period there was the understanding that Greek religion was influenced by Egypt. Whether these claims are an admiration of the richness of the culture of Egypt (as book two suggests) and the necessity to have foundations in an older religion, or if the origins truly lie in Egypt, is unclear. What is does show is that some of the most important of the Greek gods (Zeus, Poseidon, Apollo, Hera, Athene, Artemis, Ares, Demeter, Hephaestus, Aphrodite, Hermes and Dionysus) are claimed to have much older origins, at least in name.

Further evidence in Greek literature for the origin of Greek religion in Egypt is provided by Diodorus Siculus. Writing later than Herodotus in the 1st century BC, he attributes Charon directly to Egypt when discussing Egyptian burial practices.

Then, when the judges, forty-two in number, have assembled and have taken seats in the hemicycle which has been built across the lake, the baris is launched, which has been prepared in advance by men especially engaged in that service, and which is in the charge of the boatman whom the Egyptians in their language call Charon... (Diodorus Siculus 1.92)

As mentioned by Oldfather in the note one of this section, there is no evidence to support the claim by Diodorus that Charon is the direct translation of the name of the Egyptian ferryman (Oldfather 1933, 315). The name of the ferryman does not appear

to have been taken directly and the evidence above suggests that although both Charon and the Egyptian ferryman perform a similar function, they are very different characters. What this statement does show however, is that a boatman and a ferry to the afterlife in the Egyptian world was known to the Greeks, which may have provided the origins for Charon, even if he was not taken directly.

Conclusion

Despite the problems with interpreting the mortuary practices of the ancient Egyptians, they can be seen as a plausible source for boat mythology; although some distinction should be made between the ferryman mythology and the payment of a fee. The celestial ferryman is attested in the literary sources from c. 2500 BC and there is archaeological evidence for the placement of boats in burials even earlier, suggesting much older origins. The prayers in the Pyramid Texts are significant as they describe the need for a ferryman for travel to the afterlife and in some cases the ferryman is known by name, Horus.

Evidence for the payment of the fee is more difficult to find. Mentioned within the texts is the making of offerings in the name of Osiris (Wilkinson 1996, 358), but there is no reference to a fee paid directly to the boatman. Although the offerings are for safe passage to the afterlife, it seems likely that they are linked to accessing the underworld, not the journey there.

With Greek contact, from the 7th century BC and permanent settlement in the 6th century BC, it is possible that this had an impact on the evolution of Greek afterlife mythology. The claim by Greek literary sources that the origins of their religion can be found in Egypt, also adds weight to this hypothesis. However, this contact was minimal and the possibility that influence came from another source should be considered, especially considering that the differences between the boatman of the Egyptian world and the Charon. If the Greeks did take the original idea from Egypt, it definitely developed into their own mythology.

3.3 Literary References to Charon

To fully understand the evolution of the ferryman in Greek and Roman afterlife belief, it is necessary to look at the literary and artistic sources. These works give contemporary information and can aid interpretation and explanation of the patterns in the practice identified in the archaeological record. This is the starting point for most who look at coins in burials (see Sullivan 1950; Grinsell 1957, Grinder-Hansen 1991).

Charon is frequently mentioned in Greek and Roman sources and it is not possible to list every reference. This section will discuss those most relevant to understanding the evolution of the ferryman, the characterisation of Charon, and payment of the fee. The division of the literature into Greek and Roman authors is intended to show the introduction of a water barrier and consequent creation of a ferryman and his growing popularity in the Greek word, which is adopted by Roman writers and developed further.[8]

3.3.1 Charon in Greek Literature

In order for there to be a ferryman to the afterlife, there first needs to be a water barrier to be crossed. The possible origins for this have been discussed above, but it is also necessary to look at the formation of barriers to the afterlife in the Greek world. The earliest sources to mention Charon and his role as the ferryman for the dead are the Greek sources; it is also in these that the first references to the fee occur.

Homer – Iliad

Homer, writing in the 8th century BC, is one of the first of the Greek sources to mention the deportation of the souls of the dead and the method by which they make it there. Initially there appears to be no barrier to the afterlife; the souls of the warriors, immediately on death, are transported to the "House of Hades" with ease (Terpening 1985, 25).

This remains standard until the *Iliad* 23, where emphasis is placed on the requirement of specific funeral rites to expedite the transference of the soul to the

[8] For a more in more detailed literary study of Charon, please refer to Terpening 1985

afterlife. Interestingly, it is also at this point that the concept of a river barrier is mentioned, when the ghost of Patroklos visits Achilles in a dream and asks that the appropriate death rites are performed:

Bury me as quickly as may be, let me pass through the gates of Hades.
The souls, the images of dead men, hold me at a distance,
and will not let me cross the river and mingle among them... (Homer, Iliad 23.70-73)

This excerpt indicates a significant development in underworld belief. In introduces the idea that there is now a barrier to the afterlife, which requires the performance specific rites to ensure the safe passage of the deceased. Although this passage refers to cremation, there is nothing to suggest that the same advances did not occur in inhumations. By the writing of the Odyssey, the picture of the underworld has become significantly clearer with information on the boat, the river and the deceased souls (Terpening 1985, 28/29).

Terpening has suggested that although Homer does not mention Charon, it does not mean that he was not known or that he was a later addition to the pantheon of gods (Terpening 1985, 34). The critics of this view have suggested that Charon was not known to Homer or Hesiod and originally it was the winged deity Thanatos, with the help of Hypnos, which guided the deceased to the afterlife in the Iliad. He was then replaced by Hermes in the Odyssey and later by Charon (Terpening 1985, 34).

The legitimacy of the claims by Terpening that Charon was known to Homer is difficult to determine. It could be argued that familiarity with the figure, and no specific reference to the ferryman, meant that there was no need to mention Charon by name. However, the river is discussed and the use of Hermes in the *Iliad* book 24 in a physchopomal role suggests that perhaps Charon was not an established figure in Greek mythology at this time.

Minyas

The first source to mention Charon by name is the *Minyas*, which had been tentatively dated to the 6th century BC and is preserved in fragmentary form in

Pausanias' *Description of Greece*. Pausanias, in book 10, describes the paintings by Polygnotus in a building called the *Lesche* in Delphi, which depict a river, a boat and a ferryman, using the *Minyas* as its foundation (Sullivan 1950, 11):

The dead men's ferryboat which the old man
Charon rows was not moored on the bank
(Pausanias, *Description of Greece* 10.28.2)

The lack of detail in the above quotations has been viewed as significant by Terpening. He has suggested that the brief mention of the appearance and his responsibilities does not indicate "a lack of interest in, or knowledge of, the boatman but rather a familiarity with him" (Terpening 1985, 33). The 6th century texts have been consulted to confirm that therefore this seems an appropriate assumption, such a short reference does suggest that he was a well-known figure by those reading the work.

Aeschylus

At this early point, it is also worth noting that Homer is not the only source to mention Hermes as the guide for the deceased souls to the afterlife. Hermes is also invoked as the 'lord of the dead' in Aeschylus' *The Persians*, written in the 5th century BC:

Hear, King of Shades, and all you nether Powers,
Hermes, and Earth: send up this soul to the light...
(Aeschylus, *The Persians* 627-628)

This suggests that Hermes is either an alternative to the Charon myth, as evidenced by contemporary references to both, or is responsible for a different part of the journey The use of Hermes as a guide for the dead can also be seen throughout the *Iliad* 24.

It is in the 5th century BC that Charon begins to appear in Greek art, with depictions on white-ground Athenian *lekythoi* (Sullivan 1950, 12). In these he is most

frequently pictured in his boat, occasionally with the deceased standing on the shore. Figure 4 shows what appears to be Hermes leading the deceased to the Charon, supporting the above hypothesis that each figure is responsible for different parts of the afterlife journey.. The representations are very close to the descriptions in the literature; he is portrayed as 'bearded, occasionally rough and unkempt', although it is rare to see him as grotesque (Sullivan 1950, 13).

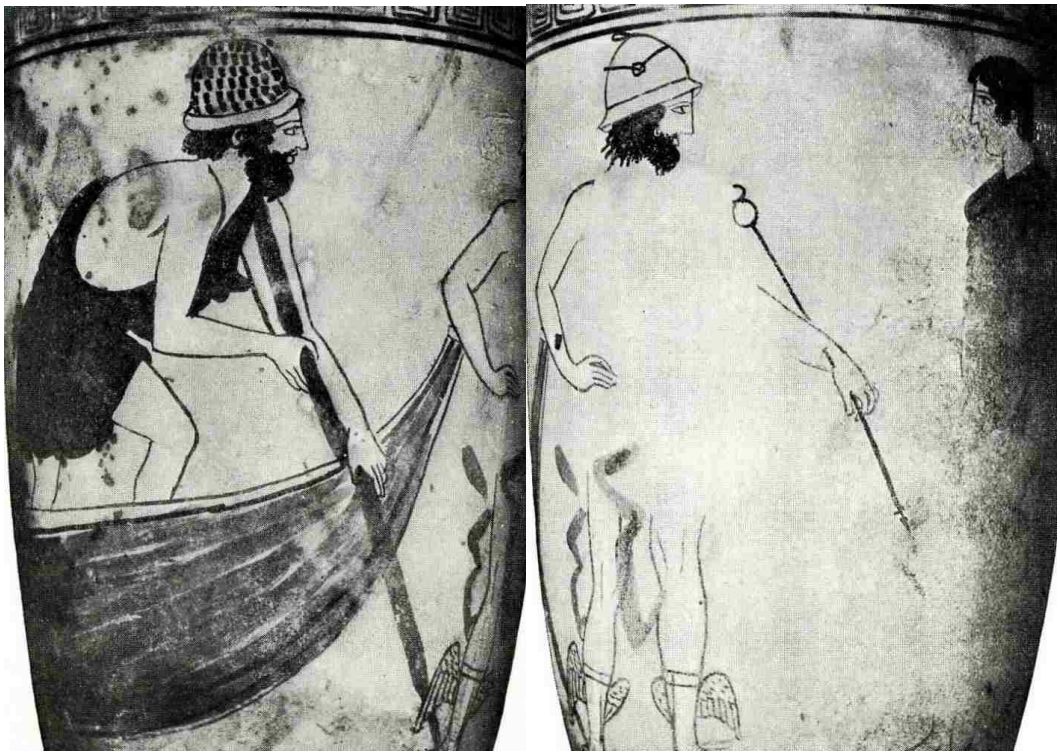

Figure 4: Depiction of Charon and Hermes on 5th century Athenian Lekythoi (Fairbanks 1914, Plate III)

Euripides

Reference is made to Charon in both Greek lyric and tragedy, although not always by name, during description of the descent to the underworld. Terpening argues that the Underworld becomes more significant in the works of Euripides (Terpening 1985, 43) owing to the descriptions of the journey to the Underworld and topographical observations. In *Alcestis*, written c. 438BC, we get a further sense of the character of Charon:

I see the two-oared boat coming over the lake;
And Charon, the ferryman of the dead,
Leans on his pole, and already calls me:

'Why are you so slow? Hurry; you make me late!'
(Euripides, *Alcestis* 252-256)

This passage describes Charon as a gruff, impatient man, waiting on the side of the river, a character trait which continues into the later Greek writing and even into the Latin literature. It is interesting to note that at this time there is still no reference to a fee for payment for the journey. This would suggest that the fee was general knowledge and there was no need to mention it, or its requirement was a later addition to this myth.

Aristophanes

In comedy, one of the most extensive descriptions of Charon, his boat and the journey to the afterlife is by Aristophanes in 'Frogs' written c. 405 BC. It is also within these works that we find direct reference to the fee. The fee is first mentioned in a dialogue between Heracles and Dionysus, the latter asks about the method to cross the *Acheron*, to which Heracles replies:

Heracles: *An ancient mariner will ferry you across in a little boat no bigger than this, for a fare of two obols* (Aristophanes, *Frogs* 139-140)

Dionysus: *Wow, what power those two obols have everywhere*
(Aristophanes, *Frogs* 141-142)

It has been suggested that mention of the fee was a reflection of Aristophanes' distaste at contemporary inflation in Greece, as emphasised by the reaction of Dionysus.

Even if the amount to be paid is linked to contemporary inflation, the mention of a fee is important as it suggests it was general knowledge at this time. Interestingly, this coincides with the deposition of the first coins in a burial context.

The fare is also mentioned later in the play, specifically by Charon:

Stop now, stop! Bring her alongside, with your oar. Off you go. Pay your fare!
(Aristophanes, *Frogs* 268-269)

It should also be noted that in this work, Dionysus is also required to row his way across the river, similar to the Egyptian mythology mentioned above.
Terpening argues parallels between this poem and Homer's *Odyssey*. He specifically mentions the description of the afterlife as one such parallel (Terpening 1985, 57). It is interesting to note that Homer's description does not mention the ferryman or the fee, perhaps this is because, at this point, the ferryman was not known and neither was the payment requirement. He also continues to discuss the need for a 'moral judgement', again similar to the Egyptian belief in the afterlife (Terpening 1985, 57).

Hermesianax of Colophon

Charon is further mentioned in later Hellenistic poetry and Greek epigram. Again, there is no space to discuss these in great detail but mention only those references which allude to the character of Charon and/or the fee for travel. One of the earliest of the references to Charon comes from Hermesianax of Colophon, c. 330 BC, who describes the descent of Orpheus to the Underworld and his encounter with Charon:

Ay, he sailed to that evil and inexorable bourne where Charon *drags into the common barque the souls of the departed...his voice baying forth angry fire, with fire his cruel eye gleaming...* (Athenaeus, *The Deipnosophists* 597c-d)

This is a much more extensive description of Charon and he is portrayed almost as a demon of death. He is depicted dragging the souls to the afterlife, almost like a bringer of death rather than just the guide. Although this type of description is unusual, it is similar to those seen in the medieval period by writers such as Dante.

It seems probable that this development in the description of Charon is an innovation of Hermesianax. In fact, Terpening applauds the 'inventiveness' of Hermesianax, and although this description is not something which continues in the later literature, it does draw upon the fears associated with the afterlife and the demons that may be

associated with it. Noteworthy perhaps, is the fact that once again the fee is not mentioned.

Leonidas of Tarentum

Reference to the ferryman's fee is not completely absent from these later Greek works. Leonidas of Tarentum, writing in the middle of the 3rd century BC, describes Charon as part of an epitaph for Diogenes (Terpening 1985, 63):

...take me in with these, Me, the dog Diogenes; Light I travel, Charon, see! Flask, wallet, raged cloak, Obol, fare of hell-bound folk... (Leonidas of Tarentum II)

Unlike the previous example, this is a more solemn portrayal of Charon; he is not dragging the souls to the Underworld but is described almost as a slave to Hades. In this example, Charon is described as 'troublesome' and even a 'painful' servant, very different to the demon of death in the above example (Terpening 1985, 63). One interesting parallel to Egypt is also worth noting here as Terpening argues that it could indicate the origins of the ferry. In the same passage the word 'βαρις' is used for boat which Terpening argues is the term which "refers to the Egyptian barges used on the Nile" (Terpening 1985, 64).

Conclusion

In conclusion, the ferryman is slowly becoming characterised through literary works. It begins with Homer and the creation of a barrier that needs to be overcome through the fulfilment of specific funerary rites. This barrier evolves into a body of water, known as the *Acheron*, described with dark imagery. With the creation of a water barrier a boatman was required to transport the souls of the deceased to the afterlife. To begin with, this individual is not named but the preservation of the *Minyas* by Pausanias gives him the name Charon in the 6th century BC. At this time he is not frequently described and merely mentioned in passing when discussing the descent to the Underworld. It is unclear whether this is because he is so well-known that he needs no description, or whether it is because his character was not sufficiently evolved.

In the 5th century BC Euripides characterises the figure as bad-tempered. This is something which continues into the Roman period. In the 4th century BC Hermesianax further describes him as a terrifying death demon; perhaps more comparable with the Etruscan Charun as opposed to the Greek figure. This is changed slightly by Leonidas of Tarentum who suggests that Charon is a servant of Hades.

First mention of the fee is made by Aristophanes in the late 5th century BC. It has been suggested that the fee of two obols is linked to contemporary inflation, but this jovial attitude towards the fee implies a familiarity with it. This suggests that the fee is well-known at this time.

Each of these descriptions is something which is further developed in the Roman literature.

3.3.2 Charon in Roman Literature

Charon receives much greater reference and description in Latin literature. Again, only those main sources that describe Charon and the fee will be mentioned.

Virgil

The first of the Latin authors to describe Charon to any extent is Virgil. He includes a chapter of descent where Aeneas travels to the Underworld to talk to his father Anchises. He consults the Sibyl for directions and after a detailed description of the journey, she agrees to accompany him. As part of this description there is a detailed portrayal of Charon:

...and these are the rivers and waters guarded by the terrible Charon in his filthy rags. On his chin there grows a thick grey beard, never trimmed. His glaring eyes are lit with fire and a foul cloak hangs from a knot at his shoulder. With his own hands he plies the pole and sees to the sails as he ferries the dead in a boat the colour of burnt orange. He is no longer young but, being a god, enjoys rude strength and green old age. (Virgil, *Aeneid* 6. 299-306)

This is a much more developed description than in the Greek literature but there are similarities. Charon is still described with the oar, although the boat also appears to have sails, he is still elderly and the 'glaring eyes' are reminiscent of the description by Hermesianax of Colophon. However, Virgil has gone further to describe the dirty rags and cloak; these are aspects of Charon which continue in the later literature. His divinity also seems to have been confirmed by Virgil, who directly refers to him as a god.

Virgil also describes a large number of deceased waiting on the banks of the river to be transported to the afterlife, and explains their fate if they are not transported:

No man may be ferried from fearful bank to fearful bank of this roaring current until his bones are laid to rest. Instead they wander for a hundred years, fluttering round these shores until they are at last allowed to return to the pools they have so longed for (Virgil, *Aeneid* 6. 328-331)

The lack of mention of the fee is interesting as it is presumed that the payment was a guarantee for travel to prevent this purgatory. We know through the Greek literature that the fee was known, although a monetary payment might not be part of the Roman myth at this point. It is possible that it is not mentioned as it is such a well-known fact. It could be argued that if Virgil believed that the lack of payment to Charon (whether coinage or other material) then surely it would have been mentioned by the Sibyl as one of the causes for the presence of the deceased on the banks of the river.

Seneca

Seneca follows in the tradition of Virgil by describing the ferryman in great detail:

This stream an old man tends, clad in foul garb and to the sight abhorrent, and ferries over the quaking shades. His beard hangs down unkempt; a knot ties his robe's misshapen folds; haggard his sunken cheeks...
(Seneca, *Hercules Furens* 762 ff.)

It appears that this description may have been based on Virgil, although it has been further embellished by Seneca. The use of the word 'abhorrent' emphasises the repulsive nature of Charon's appearance, accentuated by the description of his beard and clothing. Although not going into as much detail as Virgil, Seneca furthers the characterisation of Charon as an elderly man who almost does not have the energy to row the oar; it is unclear if this is linked to his age. This factor is further emphasised by Seneca in *Oedipus*:

...and the boatman who plies the troubled stream with roomy skiff, though hardy in his vigorous old age, can scare draw back his arms wearied with constant poling... (Seneca, *Oedipus* 160 ff.)

As well as emphasising again the elderly nature of Charon, he is also described as weary from performing this function. It is interesting to note that a 'god' would be described in such terms, as fatigued and elderly, as these appear to be human ailments. Again, Seneca also places Charon on the Styx, perhaps related to Terpening's argument that he may have misinterpreted Virgil's use of Stygian in the late 1st century BC. Also notable is the lack of mention of the payment of a fee.

Lucian – Dialogues of the Dead

Lucian, writing in Greece and Italy the late 2nd century AD, has been credited with giving the most extensive description of Charon and the Underworld in antiquity. Terpening argues that Lucian uses mythology to mock "certain customs, practices, or beliefs" integral to Roman society, resulting specifically with an "original representation of the ferryman and the Underworld crossing by fusing classical material and his own keen sense of reality" (Terpening 1985, 104). Charon as the ferryman is mentioned in a number of Lucian's works and it is not possible to mention them all.

Charon is one of the main figures in the Dialogues of the Dead. The conversations he has with the deceased and Hermes gives an insight into the character of Charon. Reference is also made specifically to the boat and to the fee to be paid.

Looking first at the ferry, it gains more description in Lucian than previous works. For example, in part 14 (4) of the dialogues, Hermes has delivered a number of items for the repair of Charon's boat. These include an anchor, thong for an oar, a darning needle for the sail, wax for the leaks, nails, rope and a brace (Lucian, *Dialogues of the Dead* 14.4). This suggests that the boat was in a severe state of disrepair, a fact which is reiterated later, in 20 (10), by Charon himself:

...your boat is small, as you can see, and unsound, and it leaks almost all over; if it lists one way or the other, it will capsize and sink. Yet you come in such numbers all at once, each of you laden with luggage... (Lucian, *Dialogues of the Dead* 20.10)

This is one of the most detailed descriptions of the ferry and suggests that it is a small craft with very little room for the passengers to the afterlife and any belongings that they would take. This excerpt also suggests that the boat requires a great deal of repair. As Lucian is using the figures in his works to comment on contemporary society, it is difficult to ascertain whether the comment on the boat is what the everyday Roman believed, or if it is simply being used by Lucian as a way of commenting on the current economic situation.

The cooperation between Hermes and Charon is also notable. In this section, the deceased are taken by Hermes to Charon; artistic depictions, such as figure 4, have shown that each is responsible for different parts of the journey. This can again be seen in the 'Downward journey' where Charon fears punishment because Hermes is late in delivering the dead to him. Terpening suggests that Charon is the psychopomp and Hermes is the "nekropomp" (Terpening 1985, 113), the only difference being the part of the journey which they lead. As this the only mention of Charon and Hermes working together, it is again difficult to decipher whether this is the belief of the everyday Greek or Roman. It could be a way by which Lucian could rationalise the use of both these figures for transport of the dead and is actually merging two separate myths.

As mentioned above, in part 20 (10) of the dialogues, Charon remarks on the fragile condition of his boat. It is at this point that he orders that everyone leave their personal belongings on the shore:

Strip yourselves before you come on board, and leave all this useless stuff on the shore... (Lucian, *Dialogues of the Dead* 20.10)

This suggests that the deceased enter the afterlife with a degree of equality, although to what extent this is a belief shared by Roman society as a whole is difficult to ascertain. It also allows for the possibility that one item could be seen as representative of much more.

Equality in the afterlife is also mentioned in part 21 (11), a conversation between two of the deceased, Crates and Diogenes. They are discussing inheritance and come to the conclusion that the properties of wisdom, independence, truth, plain speaking and freedom are the best qualities in which to inherit since these are the only things which can be taken to the afterlife:

In consequence we shall retain our wealth even down here, but they will bring with them no more than an obol, and even that won't go beyond the ferryman
(Lucian, *Dialogues of the Dead* 21.11)

There are a number of references to the fee throughout the dialogues. Part 2 (22) is an argument between Charon and one of the deceased, Menippus, who he had just transported across the river. Charon has asked Menippus to pay the fee for the crossing:

Charon: Didn't you know you had to bring it with you?
Menippus: Yes, but I didn't have it. What of it? Did that make it wrong for me to die?
(Lucian, *Dialogues of the Dead* 2.22)

This statement implies a familiarity with the practice, although its use suggests that it was not a belief shared by all Romans at this date. It appears to be questioning the

inclusion of a coin and how death cannot be avoided. Lucian is writing in the 2nd century AD and as will be demonstrated in the main body of this work, it is at this point there is a steady decline in the placement of coins in burials. There is no suggestion here that Lucian had a bearing on the belief systems of Roman society, but this is perhaps instead representative of a more wide-spread decline in belief in this method of transport to the afterlife.

Menippus does respond to the anger of Charon, who questions why he should be the only person to be allowed free passage:

Not free, my good fellow; I baled, I helped at the oar, I was the only passenger who wasn't weeping (Lucian, *Dialogues of the Dead* 2.22)

Charon is forced to allow Menippus to the afterlife, despite the fact that he had not paid the fee. This suggests the possibility that those who did not pay could still reach the afterlife. Parallels with this in Greek literature can be seen in *The Frogs.* Terpening argues that this mention of the fare and the later discussion in *De Lucto* is an attempt to "incarnate the ridiculousness of popular belief" (Terpening 1985, 113).

Lucian – De Lucto

De Lucto (On Funerals) deals directly with death and the associated funerary beliefs. Although this text only mentions the ferryman in passing, it does discuss the fee:

...So thoroughly are people taken in by all this that when one of the family dies, immediately they bring an obol and put it into his mouth, to pay the ferryman for setting him over. They do not stop to consider what coinage is customary or current in the lower world, and whether it is the Athenian or the Macedonian or the Aeginetan obol that is legal tender there; nor, indeed, that it would be far better not to be able to pay the fare, since in that case he ferryman would not taken them and they would be escorted back to life again... (Lucian, *On Funerals* 10)

It is clear from this excerpt that the belief in the need for a payment is well-known in Roman society but again the sceptical nature of Lucian's analysis suggests that not

everyone took this custom seriously. As there is the continuation of the placement of the coins in burials at this time, they could be attributed to those who still believed in Charon, those who were hedging their bets, and those who did it as part of a tradition with no specific meaning.

Apuleius

It is difficult to find evidence for the location of the coin in literary sources; one exception is *De Lucto* above and the other is *Metamorphoses* by Apuleius, written in the mid-2nd century AD. This work describes the myth of Cupid and Psyche. As part of Psyche's descent to the underworld, she resolves to kill herself to speed up the journey and consequently has a conversation with the tower from which she is planning on jumping. The tower advises Psyche about the underworld and mentions the ferryman and the fee as part of this:

Very soon you will come to the river of the dead, where the administrator Charon immediately demands the toll and then ferries travellers to the farther bank in his patched skiff (Apuleius, Metamorphoses 6.18)

For your fare you will give that filthy old man one of the coins you are carrying; but make him take it out of your mouth with his own hand.
(Apuleius, *Metamorphoses* 6.18)

This reference, and that of Lucian above, indicate knowledge of the placement of coins on the mouth of the deceased and could be argued as the origin for the interpretation of coins in the mouth as 'Charon's obol'. However, it has also been suggested that at the end of the 4th and the 3rd centuries BC, it was common to carry small change 'wrapped up and tucked into the cheek' (Grinsell 1957, 262). The find of two coins wrapped in silver foil in the mouth of the deceased from an inhumation at Rams Hill in Uffington, could be evidence for this practice (Piggott and Piggott 1940, 465-480; Sutherland 1940, 481-485). It is plausible to assume that this was also the custom in Italy. If any of the coins had been wrapped in cloth, then this would not have survived in the archaeological record.

Conclusion

In conclusion, these later classical works add significantly more detail to the character of Charon. At the end of the 1st century BC, he moves from being a passing reference to a ferryman, to a major figure in descent mythology. Virgil's contribution through specific descriptive detail is crucial to this development and the later writers can be seen adopting his methodology and using his imagery e.g. Seneca. The *Aeneid*, for example, describes Charon as an elderly, unkempt man, dressed in dirty clothing, a description which becomes standard when discussing Charon in the subsequent literature. There is no mention of the fee in this work but there is a clear need for proper rites to be performed in order for the deceased to make it to the afterlife.

It is within the works of Lucian, written in the 2nd century AD, that Charon receives greatest attention. He is able to speak and the reader gains a greater understanding of his character through his interaction with other gods and the deceased souls. There is also much more description of the boat itself. The fee is brought up frequently in this work, although most notable is its mention in the argument between Charon and Menippus.

Evidence for the position of the coin is difficult to find in the literary evidence. Apuleius, writing in the late 2nd century AD, is the exception to this. The mention of Charon taking the coin directly from the mouth of the deceased suggests a knowledge and practice of this custom and deposition of the coin at this location.

3.3.3 Conclusion

There is a clear literary tradition in the descriptions of Charon. It begins with inception of a water barrier in Homer in the 8th century BC and emphasis on the need for specific rites to be undertaken to prevent the deceased from living in purgatory. Charon is first mentioned in the 6th century BC, when he is described as elderly. In the work of Euripides, dating to the 5th century BC, Charon is portrayed also as impatient, another trait which continues into later works. It is not until the last few

years of the 5th century BC that there is reference to the fee. By the end of the 4th century BC the first descriptions of Charon are appearing. Hermesianax of Colophon is one of the first who describes the 'gleaming' eyes of the ferryman, almost a demon of death. These descriptions can also be seen in Leonidas of Tarentum, writing in the 3rd century BC.

It is not until the Roman period however that Charon is given lengthy and vivid description and we get a better sense of his character. Virgil, writing at the end of the 1st century BC, gives a detailed description which becomes the basis for most future work. Little changes in the 1st century AD, with the work of Seneca using similar descriptions to that of Virgil. The extensive reference to Charon by Lucian in the 2nd century AD supports the descriptions of the gruff old man given by the earlier sources. Descriptions of the boat are also included. Charon changes little towards the end of the 2nd century AD, but there is mention of the location of the coin being in the mouth of the deceased; something which is not specifically mentioned in other works. This evidence would suggest that the average Roman would have a familiarity with Charon and the custom.

3.4 Etruscan Charun

Although the main focus of this work is the Greek and Roman incarnation of Charon, it is also necessary to make reference to the Etruscan Charun. Given the similarity of their function and name, and the inclusion of a form of currency in Etruscan burials, it would be wrong to ignore the figure. This section will give an overview of the main attributes of Charun and the role that he plays in the Etruscan journey to the afterlife, in order to assess the similarity between the two characters.

Analysis of Etruscan afterlife theology can be difficult as from the archaic period onward there is growing influence from Greece (Haynes 2000, 268). This could make the analysis of the origin of a single myth or deity difficult, where do the original beliefs end and the Greek influenced one begin? Haynes argues that the "outward form of Etruscan religion was visually indebted to Greek models, in character it differed profoundly..." (Haynes 2000, 268). This analysis suggests that any similarities identified between Charon and Charun in art might simply be a

reflection upon the interaction between the two cultures. Simon goes further to suggest that the name is taken directly from the Greek ferryman himself (Simon 2006, 57) but is this where the similarity ends?

The Etruscan journey to the afterlife differs in many aspects from the Greek but both cultures share the commonality of a psychopompal figure. In the case of the Etruscans it is Charun, sometimes assisted by Vanth, who guides the souls of the dead to the next life. There are no surviving literary sources which mention or describe the Etruscan Charun; therefore, it is necessary to look at the pictorial representations in tomb paintings, sarcophagi and portable objects, such as ceramic vessels, to get a sense of his character. The main comparison will focus on the appearance, the tools he carries and function of Charun in these depictions.

Figure 5: Charun in the Tomba degli Anina (after Steingräber 1986, plate 11)

To begin the comparison, it is necessary to consider the physical appearance of Charun. It is the aim to identify those aspects which are most recognisable as this deity and to what extent they can be paralleled with the Greek god, which then passed into the Roman pantheon. As discussed above, the Charon of Greek mythology is essentially an elderly human male. He is depicted most frequently dressed in rags or a short tunic, depicted beside a boat and sometimes holding a rudder. Further descriptions of Charon from the literary sources suggest that he was a bad-tempered, impatient old man. This description changes little between both the Greek and Latin literature, although, as illustrated above, becomes more developed, perhaps shedding light on the evolving belief system in the afterlife. The representations of Charun are very different. He is immediately recognisable by his blue skin and demonic appearance, portrayed with zoomorphic features including pointed animal ears, hooked nose and wings. This is definitely contradictory to the depictions of Greek Charon, who may

be unattractive, but is not a demon. Charun can also be identified by his tousled black hair and black beard. This is a significant difference to the grey hair of Charon; it appears that the Charun of Etruscan mythology is much younger in physical years.

Charun is normally portrayed as wearing a short tunic which can be white or red with white vertical bands extending from the shoulder to the bottom of the clothing (Jannot 1993, 70). On rare occasions, seen predominantly on ceramic vessels from Volterra, the vertical white stripes are replaced by a braid bordering the bottom of the tunic (Jannot 1993, 70). Charun's dress has been interpreted as that of a carpenter or a craftsman, suggesting that he performed a manual function (Jannot 1993, 70). His footwear is that of a traveller, implying that he had to travel great distances very quickly; evidenced by the attached wings (Jannot 1993, 70). In these cases perhaps a comparison to Hermes would be more appropriate? Hermes is also noted as a guide to the underworld, as well as functioning as a patron of boundaries and may be more closely connected to Charun than Charon. In some rare instances, Charun is depicted with wings on his back, again suggesting a possible link with Hermes.

As well as his physical appearance, Charun can be identified through the instruments he carried; these include the mallet, a smaller hammer, a key, tongs and in some depictions even armour and weaponry.

The most frequently depicted is the mallet. From the tomb paintings, the ceramics and the sarcophagi, the mallets are estimated at around c. 0.90m in length and made out of wood with bronze or iron rings to reinforce the handle (Jannot 1991, 459). It has been argued by Jannot that the significance and function of Charun is dependent upon the interpretation of the mallet (Jannot 1993, 59). At the beginning of the 20th century, the mallet was considered a torture device with Charun interpreted as a death demon using the mallet to cause suffering on victims which are suspended by their arms (Jannot 1991, 452). The sarcophagus of Laris Pulenas from Tarquinia shows two Charun swinging their axes towards the head of a figure, interpreted as the deceased (De Grummond 2006b, 215) This theory may have been substantiated by the demonic appearance of Charun where a function as torturer of the dead may not be a great leap in interpretation.

The evolution of the function of Charun in relation to the mallet has also been emphasised by De Ruyt who suggested the mallet as a possible sacrificial implement (Jannot 1991, 452). Jannot concedes that there are few scenes of Etruscan sacrifice, but in these few examples it appears that a knife or a hatchet is used, not a mallet (Jannot 1991, 453). Current belief rests on the assumption that, although the appearance of Charun with the mallet is threatening, he is not a hostile character. Instead, he accompanies and leads the deceased to the afterlife and only acts threateningly to those that may block their passage (Jannot 1993, 69).

The clear link between Charun and doors/gates presents a further possible interpretation for the mallet. The mallet could be used to aid the opening and closing of the doors that the deceased must pass through on the way to the afterlife (De Grummond 2006b, 215). Although little is known about the Etruscan afterlife, the voyage or the destination, it is generally agreed that it involved a journey being led by Charun and Vanth. Doors frequently painted in Etruscan tombs suggesting that the passing through door/gates barriers were a common belief. Jannot draws upon information from the Greek general, Énée the Tactician, who devotes chapters XVIII and XX to describing in detail the structure of fortified city gates, to explain the function of the mallet (Jannot 1993, 73). In general, the doors were closed and locked by the use of one or more large and heavy wooden bars, sometimes secured with iron blades (Jannot 1993, 73). Due to the heavy nature of these bars, removal to open and close these gates required the assistance of heavy tools, such as a mallet. It seems most likely that this is the correct explanation as Charun is rarely depicted as threatening the deceased and the presence of the doors painted onto the tomb walls with Charun figures painted at the sides adds further weight to this conclusion.

As well as the mallet, Charun is also depicted holding a smaller hammer, although this is rarer. This attribute is also held by the female winged deity in the Tomb of the Scudi (Jannot 1993, 75). The function of this item is difficult to determine but it seems likely that it is also linked to the opening of doors/gates. Jannot argues that they may have been used to push the small bars of the secondary doors where a small

metal or hard wood latch is slotted into a perforation in the larger vertical bar (Jannot 1993, 75).

Other than the mallet and hammer, Charun is also portrayed holding a key. The key is a large hook-like object with two projections and have been argued as representative of those which would have been used to open the monumental doors (Jannot 1993, 71). Enee also mentioned the use of the keys which appear to be specialised for the purpose of opening the main city gates (Jannot 1991, 454). This again links Charun to the doors, like the mallet, and implies that the Etruscan journey to the afterlife is through gates as opposed to across a water barrier.

Another more unusual item associated with depictions of Charun is the scissors. The main evidence of the scissors is attested on a stele from Felsina (Jannot 1993, 75) and it has been argued that it is also linked to the opening of the doors. This is based on the descriptions by Enee, who describes an instrument of this type, named a καρκίος, each with a unique shape, used to open doors (Jannot 1993, 75/6).

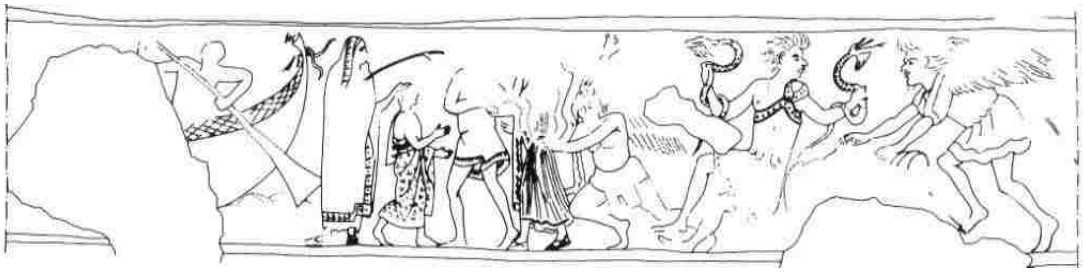

Figure 6: Boat in the Tomb of the Blue Demons (Krauskopf 2006, V.13, 74)

Conclusion

Although this only a brief discussion of the attributes of Charun, this section has highlighted a number of significant differences between the Etruscan deity and the Greek of similar name. These distinctions are initially seen through their appearance. Greek Charon is portrayed as an elderly man, whereas the blue skin and zoomorphic features of Charun confirm him as a demon of death. They are also depicted in different situations. Charon is almost always in the vicinity of a boat and infernal waters to the afterlife. Whereas Charun tends to be associated with doors/gate barriers rather than water, he is most certainly not playing the role of a ferryman. He

is depicted infrequently in connection with a boat, the Tomb of the Blue Demons (fig. 6), dating to the 5th century BC, being a notable exception (Krauskopf 2006, 74), and when this does occur he is not at the helm.

What can be inferred from this evidence is that there exist two distinct mythological beliefs for the journey to the afterlife. In Etruscan theology, this journey involves passing through a number of gates, led by Charun and also Vanth, as evidenced by the close proximity of depictions of Charun to the doors within the tombs. In Greek mythology, the barrier is water based. The instruments with which Charun is depicted can all be linked in some way to the opening and closing of these city gate barriers, gates to the underworld; the hammer and the mallet for removing the bars which block the gates and the tongs and scissors for removing the smaller pegs. Overall, it seems that they are very different deities playing a similar psychopompal role but that is where the similarities end. Perhaps it is more appropriate to make a comparison between Charun and Hermes? They both wear the clothes of a traveller and both portrayed with wings.

Although this will be discussed in more detail in Chapter 4, section 4.2, it is worth mentioning that *aes rude*, considered a form of proto-currency, is found in burials between the 8th century and 3rd century BC in Etruria; after which they are replaced by coins (Bergonzi and Agostinetti 1987). No evidence exists to suggest that the placement of *aes rude* in Etruscan burials is specifically related to Charun.

3.5 Longevity of the practice and reference to Charon

The practice of putting a coin the grave is not limited, geographically or chronologically, to the Roman era and fascinations with Charon and his links to death can be found throughout history. This section will give a range of examples for the placement of coins in burials from other provinces in the Roman Empire and unconquered areas, to Jewish, Christian and Anglo-Saxon burials; examples from much further afield, such as Russia and China, are also referenced. Parallels to the Graeco-Roman practice are also made in early twentieth century literature from Scotland. Even in modern-day popular culture Charon is still relevant and can be found within literature and television. The aim is to illustrate just how wide-ranging

this topic is and although extensive, this work only covers a small part of a much larger and complex phenomenon.

This work covers selected sample territories within the Roman Empire but as discussed in chapter 1, cannot cover everything. It must be understood that this practice does exist in other areas under direct Roman rule. For example, in the province of Pannonia, two cemeteries alone have yielded 112 coins from 99 burials dating to between the 2nd and 4th centuries AD (Topál 1993; Topál 2003). Other evidence can be found at a Roman cemetery in Slovakia (Kraskovska 1976). This evidence suggests a strong connection between the expansion of the Roman Empire and the spread of this custom.

As will be discussed further in chapter 7, in the Roman period, coins are deposited in burials in areas outside direct Roman rule. Denmark is discussed in detail but it must be understood that this is not the only area where this practice happens. Coins are also found in burials throughout unconquered Germany (Brown 2008). As this is contemporary to the practice within imperial boundaries links could be suggested. These are discussed in more detail in chapter 6.

Coins continue to be deposited after the conversion of the Roman Empire to Christianity in the 3rd and 4th centuries AD. Interpreting early Christian burials is difficult due to the persistence of traditional practices and the fact there was no Roman law which demanded the separate burial of Pagans and Christians (Johnson 1997, 41/42). Nevertheless, many examples exist for coins in Christian burials, below are only two of these examples.

Coins have also been found in catacombs in Rome. Exploration of the Crypt of saints Felix and Adauctus in the Catacomb of Commodilla in 1904 produced a number of coins. Amongst these was a silver penny with the name of the Emperor Louis the Pious and the pope Gregory IV, dating to the late 9th century AD (Osborne 1985, 299). The coins have been used to date the latest phase of the crypt use to within the 9th century. Gorecki suggests a connection between the coins in Christian burials and

round shape of the Eucharistic communion, and also the donation given to the church called ‘peters-penny’ (Gorecki 1975, 245).

The use of coins in Christian burials is not restricted to Rome; coins have also been found in the early Christian period in Egypt. At the early Christian cemetery of Kellis c.450 burials of an estimated 3000-4000 burials have been excavated (Bowen 2003, 167). One set of burials has been tentatively suggested as Christian. It was a group of 13 burials, nine adults and four infants; five of these were buried in pit graves, four in three reused wooden coffins and the remainder were placed on the floor (Bowen 2003, 170). They are argued as Christian due to their burial orientation (heads to the west), the inclusion of infants, the lack of pharaonic items and minimal grave goods (Bowen 2003, 170). This interpretation is debated, however, because of the discovery of a gilded bronze coin of Nero that has been made into a pendant and the reuse of Pagan coffins (Bowen 2003, 170). Bowen argues that the reuse of coffins in Christian burials is not uncommon and the fact that the coin was struck c. 225 years before it was deposited in the burial suggests that the image of Nero was not important and perhaps it was a family heirloom (Bowen 2003, 170). The presence of coins in Christian churches in the same area confirms the presence of Roman coins in other Christian contexts (Bowen 2003, 170).

The function of the coin certainly changes when it is converted into a jewellery piece and may not have a bearing on the religious persuasion of the grave occupant. It may simply be a valued item to an individual and not a reflection of faith, this argument can also be applied to the Roman period burials. This is not the only example; coins have also been found in a number of burials at a second cemetery Kellis 2. These have been dated to Constantine I and Constantius II (Bowen 1999, 170).

Coins in burials can also be seen in the Anglo-Saxon period. For example, a female burial from Sarre in Kent, dating to the ‘Final Phase’, contained 4 gold coins which were used as pendants (Crawford 2004, 92). The ‘Final Phase’ refers to the period between the Pagan and Christian; this burial is interpreted as that of a Christian due to the presence of cruciform artefacts, although there is a degree of debate on the subject.

In his analysis of the link between grave goods and gender and social status, Stoodley created a database of 1230 burials from Wiltshire, Hampshire, Oxfordshire, Rutland and Cleveland (Stoodley 2000, 458/459). Within this database, there are 7 burials which contain coins; 2 of these are child burials, 2 are adults and 3 are mature adults (Stoodley 2000, 460). No further information on the coins is given but it appears that their use is a rarity.

Figure 7: Coin 19 from the Sutton Hoo ship-burial (Kent 1975, 626)

One of the more well-known of the Anglo-Saxon burials is the ship-burial of Sutton Hoo. Found at the waist of the deceased, was a leather pouch containing 37 small gold coins, three unstruck circular blank fragments of gold and two small gold ingots (Kent 1975, 578). The coins have been used to date the burial to c. 620-625AD (Kent 1975, 587), although there is some debate on this chronology. This grave is very rich and the inclusion of gold coins supports this. With such few examples it is perhaps wrong to make definite interpretations about the uses of coins in the Anglo-Saxon era, but it does show the reinvention of the practice into a later period.

Looking beyond the chronological and geographical limits of the Roman Empire, many more examples of coins in burials can be found. The examples below are designed to illustrate the varied locations in which the practice can be found.

The placement of coins on the eyes of the deceased in Jewish burials of the Second Temple Period (515-70 BC) has received some debate. This is based on the finding of four coins inside two Jewish bombs at Jericho, which have been interpreted as indicative of a common custom of placing coins on the eyes of the deceased (Hachlili and Killebrew 1983, 147). It has led to the suggestion that the objects visible on the Turin Shroud are coins (Hachlili and Killebrew 1983, 147); although the evidence is still quite vague and it is possible that they are pottery sherds which are a more common occurrence (Bortin 1980, 110). It should be noted that even if the Turin Shroud does contain the image of coins, it has been radiocarbon dated to the medieval period, between AD 1260-1390, and therefore significantly later than the Second Temple Period (Damon et al 1989, 614).

At Jericho, two of the coins were discovered in Tomb D/18; one in the debris of the roof collapse, a coin of Yehohanan Hyrcanus II 63-40 BC and the second in the fragmented skull of the deceased, a coin of Herod Archelaus (4 BC -6AD). The other two were discovered within the remains of the skull both were bronze coins of Agrippa dating to 37-44 AD (Hachlili and Killebrew 1983, 148). These coins were interpreted as a parallel to the payment to Charon (Hachlili and Killebrew 1983, 149). The influence of Hellenistic Greek contacts should not be overlooked but it is unlikely that the coins are linked specifically to Charon. Although the original position of the coin cannot be confirmed, they may have been placed in the mouth. The fact that the practice is a rarity supports the view that this was not widespread custom at that time, in this period.

Andrew Meacham strongly disagrees with this statement and suggests that the custom was much more common than the archaeological evidence implies (Meacham 1986, 58). However, his argument is speculative and based on an assumption that the coins were part of the original burial and were removed when the bones were collected and reburied; he has no evidence to support this. It remains a rarely occurring phenomenon and cannot be viewed as common.

The extensive nature of coin offerings in burials can be illustrated with evidence the placement of Sassanid and Byzantine coins in burials in Russia. From the cemeteries

of Verh-Saya, Bartym, Nevolino, Avergen and Suh Log, there are 44 burials containing 67 coins (Goldina and Nikitin 1993). Over 92% of the coins are silver and date to between the 5th and the 9th centuries AD; pierced coins also feature (Goldina and Nikitin 1993). It is difficult to explain the presence of these coins in this area as there are no direct trade routes between the Sassanid and Byzantine Empires and the Karma basin (Goldina and Nikitin 1993, 111). The reason for the placement of coins cannot be linked to Charon so alternative explanations are required.

Looking even further to the east, coins have also been found in burials in China. In the province of Jiangsu on the east coast there was the discovery of a burial dating to the Han-dynasty (206 BC – AD 220). Two graves were discovered, one was well preserved but the grave equipment in the other was missing (Ehrenwirth et al. 2011, 44). 487 bronze coins were found at the foot of grave 1; these were all round with a square hole in the centre with the legend *wuzhu*, a type which was introduced by the in the year 118BC by the Emperor Wu (Ehrenwirth et al. 2011, 49). Using comparative data from coins in other burials, the grave has been dated to not before the 1st century BC, since this tradition does not appear to start until the reign on Zhao in 86-74BC (Ehrenwirth et al. 2011, 49). The reason for the presence of the coins is unknown but the large number and the relative wealth of the other grave goods suggest that they were provision for the afterlife for a wealthier individual. It should also be noted that this publication does make note of other burials with coins in this area, suggesting that these graves are not an isolated occurrence.

The use of Charon as a default explanation and parallel for coin offerings in burials continues into the twentieth century. McPherson's description of death and burial in his work on the beliefs of the people of north-east Scotland mentions the placement of a coin beside the deceased (McPherson 1929, 124). Of course at this time in this area, the coin is definitely not linked to Charon, but parallels are made to the Greek practice. McPherson describes that in the north of Scotland it was tradition for a 'regular churchgoer' to put half-a-crown in the coffin with their dead father (McPherson 1929, 124). This evidence shows how the placement of coins must have alternative explanations.

The Charon parallel is also used in connection to the placement of small circular pieces of shale in graves at Portpatrick in Dumfries and Galloway dating to the 18th century. They were described as 'circular pieces from 3 to 4 inches in diameter' and found in the area of some of the oldest graves (Duns 1893-4, 127). Duns quotes the original parish record by Rev. Andrew Urquhart, which states that the he did not know of any tradition for the placement of money in the coffin to pay for travel to 'the better land whence no one has yet returned' (Duns 1893-4, 127). The function of these items is difficult to decipher, but the parallel to the Charon custom is interesting.

Although not linked specifically to the deposition of coins in burials, an article from the journal 'Folklore' shows the connection which is made between the ancient Greek Charon and his modern Greek equivalent Charos. An extract from the Montreal Daily Star from August 20th 1912 described a boycott on the steamship 'Charon' by the dockers on the Greek ports, who had refused to work the ship due to its name (Rose 1913, 247). As quite rightly stated by the author, it is more likely that the fear does not come from the ancient ferryman but from his modern incarnation 'Charos' (Rose 1913, 247). This is interesting to note as it shows a continuation of the evolution of Charon and how he is still recognised in this period.

The mythology and links that Charon has with death, and the knowledge of his association to the placement of coins in burials, has continued into modern-day popular culture. For example, in the third Tiffany Aching novel in the Discworld series by Terry Pratchett, the ferryman is mentioned (Pratchett 2006). Within this novel there is a description of the ritual which followed death and 'two pennies on their eyes for the ferryman' (Pratchett 2006, 155). Within fictional literature interpretation is difficult, but it does show a continued existence of the knowledge of the ferryman figure and the use of coin offerings.

The connection between the ferryman and popular culture can also be seen in television. In season 1, episode 2 of the psychological drama 'Criminal Minds'[9] the

[9] Episode titled 'Compulsion', written by Jeff Davies. Originally aired 28th September 2005, produced by CBS.

image and description of Charon is used. When the murder suspect's house is raided, a picture of Charon can be seen on the pin board and later, there is a phone message by the murder in which she claims that she is killing in the name of Charon. This use of Charon is very dark and he can almost be equated with death himself.

In conclusion, the variety of examples described above show how wide-ranging this custom can be. Coins are not just found in Greek and Roman burials but can be found as far east as Russia and China. Although some of the coins in burials mentioned above could be connected to the Greek and Roman world, some must have developed independently. The presence of coins in Christian burials also suggests that this is not just a Pagan practice and the meaning for the coins has evolved. It could be explained through the continuation of traditional practice or simply included as something which was important to the deceased or the mourners. More interesting perhaps is the continued relevance of Charon into modern contemporary popular culture. His appearance in literature and on television demonstrates that his links to death have not been forgotten and he is still able to capture the imagination.

3.6 Conclusion

In summary, this chapter has given the background to the study of coins offerings in burials. It has highlighted two possible origins for boat mythology, the Near East and Egypt. The Near East is a possibility but, since the evidence comes primarily from the Epic of Gilgamesh which dates to the 7th century BC at the earliest, it cannot be proven. Traditionally, the origins of the ferryman are placed in Egypt and the analysis above supports this with boats included in burials as early as 3000 BC. Parallels can be drawn between the role of Ur-Shanabi and Charon but until earlier evidence for afterlife belief is discovered, the origins are firmly set in Egypt. The same can be argued for reciprocal agreements with Gods in exchange for safe passage, although in the case of Egypt the payment is to the God of the Underworld as opposed to the ferryman.

As will be discussed in chapter 4, a pre-Roman tradition for the deposition of currency in burials can be identified in Italy. In Etruria this is especially significant

as Etruscan mythology also includes a similarly named guide to the afterlife, Charun, dating to the 6th century BC. Analysis of the depictions of Charun shows him to be a blue figure with zoomorphic features, most often seen carrying a mallet. Charon, on the other hand, is an elderly human male almost always described in the vicinity of a boat. The boat appears infrequently in Etruscan underworld mythology and does not seem to be linked to Charun. This shows that although they perform a similar function, they are completely different characters. From the available sources there is no evidence to link the deposition of *aes rude* in Etruscan burials with Charun, he does not require payment.

By looking chronologically at the Greek and Roman authors, it has been possible to observe the evolution of Charon and the payment of the fee. The first descriptions of the journey to the afterlife can be found in Homer in the 8th century BC, although there is no mention of a ferryman. The name Charon is introduced in the Minyas in the 6th century BC and the first mention of the fee can be found in the late 5th century BC in Aristophanes, at the same time as coinage becomes widespread. It should be noted that this coincides with the earliest examples of the placement of coins in Greek burials (Grinsell 1957, 262; Grinder-Hansen 1991, 210). Charon continues to evolve in the Roman literature and gains more detailed description in the works of Virgil in the late 1st century BC; he is shown to be a gruff, grotesque old man. This is something which continues throughout subsequent literature. It seems likely that the link between the deposition of coins in the mouth and Charon mythology come from the works of Lucian and Apuleius, who describe the carrying of the coins in the mouth.

The placement of coins in burials and parallels to Charon mythology do not stop at the end of the Roman period and section 2.5 has given a wide variety of parallels to the practice. What these examples show is that the use of coin offerings in burials has developed independently in areas where Charon was unknown. Within these areas, the coins must have a very different meaning to the mourners which placed them. Taking into consideration the large areas with very different cultural backgrounds within the Roman Empire, why should we believe that every placement of a coin in

the Roman world is linked to paying the ferryman? Does it not deserve a more thorough analysis?

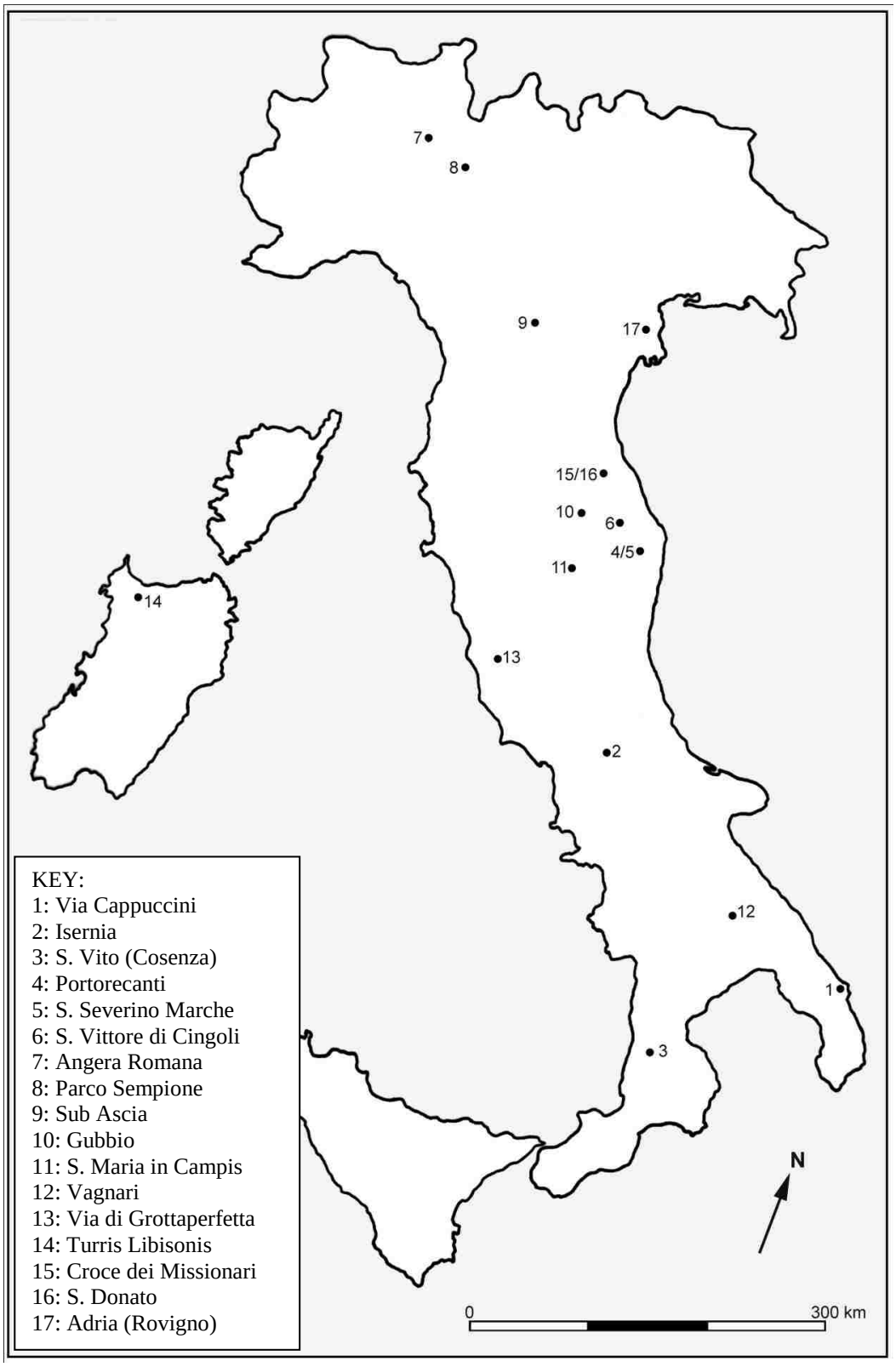

Figure 8: Location map for the roman imperial period cemeteries considered in Chapter 4. The number corresponds to the ID reference in table 1 and appendix 3.

4.1 Introduction

Italy has been included as a case study region as it has produced some of the earliest evidence for the deposition of coins in burials outside of Greece.

This chapter will begin by introducing the dataset used in the analysis, indicating how the cemeteries were selected (see fig. 8), the level and quality of the data, the problems encountered during the collection process and how these may affect the approach to, and results of, the investigation into coins in burial in the Imperial period. The aim is to give the reader a clear understanding of the dataset and its potential biases. This is followed by a comparison of the total number of burials per cemetery to those containing coins, thereby demonstrating the prevalence of the custom in this region.

Section 4.3 will give a brief overview of the evidence for the pre-Roman tradition of depositing coins in burials. It should be understood that this is not intended to be a comprehensive analysis of all examples, it is included to illustrate that the custom, and its associated significance have much older origins that might influence the interpretation of the practice in the later period.

The main bulk of the chapter is the analysis of the aforementioned dataset and interpretation of the results (section 4.4). Investigation will follow the methodology outlined in chapter 1, section 1.2. The aims are to analyse the coin in its burial context as thoroughly as possible and to identify any patterns in coin deposition which can be compared to other areas within the Empire (see chapter 8).

4.2 The dataset

The geographical coverage, selection of the case study areas, and problems associated with data analysis has been outlined in chapter 1, parts 1.2.3-1.2.5; the following discussion will therefore concentrate specifically on the dataset from Italy.

The cemeteries considered in this analysis were randomly selected from throughout the province of Italia. There were two reasons for this approach: the first was to gain a representative sample of cemeteries from the area in order to identify whether or

not the observed patterns in coin deposition were province-wide or region specific; the second was to avoid concentrating solely on cemeteries with a large number of coin offerings, as this might distort the overall distribution pattern.

A problem with this methodology was the lack of cemetery publications from sites in the south of the country. In order that the sample be representative of Italia in its entirety, it was necessary to change my approach and actively seek sites to the south of Rome. In addition, unpublished sites in the south, such as Vagnari in Puglia, have been included to try to redress the imbalance. In spite of this, 75% (16) of the cemeteries are located to the north of Rome; a potential bias which should be considered when analysing the results.

The level of data and quality of publications for the selected cemeteries was of a relatively high standard, although information was often found to be lacking in a detailed description of the condition of the coins. For example, if a coin is noted as having been burnt, it can be possible to differentiate between pyre offerings and grave goods. Without specific details on burnt coins, it meant that this aspect of funerary ritual could not be investigated.

Moreover, the instances of pierced versus non-pierced coins was not always recorded (at Isernia, the existence of pierced coins was only recognised through the scrutiny of illustrations and photographs). Without supporting illustrations or photographs, the appearance of pierced coins in the burial record may have been completely overlooked. This highlights the potential for pierced coins to have been missed, and a bias in the analysis of their appearance.

Further limitations to the available data for this area included the recording of the age and sex of the deceased. With so few examples, a thorough analysis of coin deposition based on age and sex of the grave occupant was not possible. Nevertheless, the age and the sex of the deceased were taken into consideration where the information was available, such as within the study of pierced coins.

Data collection resulted in the gathering of information from 17 cemeteries, totalling 420 burials containing 521 coins (table 1; appendix 3).

Percentage and location of burials containing coins

The collection of comprehensive details for cemeteries and burials which did not contain coins was considered and attempted. However, it quickly became apparent that this was restricting the time available for data collection on those cemeteries which did contain coins. This approach might have been possible if looking at only one region, but when analysing data from four regions, it became unfeasible. The importance of this information should not, however, be underestimated, since it gives a context in which to understand the frequency of the custom. As a compromise, it was decided to record the total number of burials within each of the cemeteries included in the dataset. This approach is not as detailed as looking at every cemetery, but does aid in the analysis of the uptake of the custom.

Table 1 summarises the main details for the cemeteries included in the dataset; this comprises the total number of burials in the cemetery, the number of burials containing coins, the percentage containing coins, and the site type (urban, rural or fort). The ID reference numbers correspond with the map at the beginning of this chapter (see fig. 8) and the database in appendix 3 (where the references can also be found). It should be noted that 'urban' is used to describe those cemeteries which can be clearly linked to a settlement, although they might be located just outside the city walls, since they are the likely burial location for those living within the settlements.

ID reference	Site	No of burials total	No with coins	%	Site type
1	Via Cappuccini, Brindisi	283	21	7.4	Urban
2	Isernia, Quadrella *(Aesernia)*	114	21	18.4	Urban
3	S. Vito (Cosenza), Luzzi	18	8	44.4	Rural
4	Portorecanti, Macerata	361	83	23.0	Cemetery is rural but it is (potentially associated with Roman colony of *Potentia*)
5	S. Severino Marche, Macerata	9	3	33.3	Rural (interpreted as part of the necropoli of *Septempeda* but located outside the city walls
6	S. Vittore di Cingoli, Marche	6	1	16.6	Urban
7	Angera Romana, Milan	271	107	39.3	Urban; *Vicus Sebuinus*
8	Parco Sempione, Milan	1	1	100	Urban
9	Sub Ascia, Modena	53	29	54.7	Rural; 3 isolated burial sites in the foothills in the side of the valley, outside the city
10	Gubbio, Perugia	233	35	15	Urban
11	S. Maria in Campis, Perugia	144	41	28.5	Urban; lies just outside the city of *Fulginiae*
12	Vagnari, Puglia	82	15	18.3	Rural

13	Via di Grottaperfetta, Rome	101	13	12.9	Urban
14	Turris Libisonis, Sassari	9	4	44.4	Urban
15	Croce dei Missionari, Urbino	92	19	20.7	Urban (outside the city)
16	S. Donato, Urbino	101	14	13.7	Urban (outside the city)
17	Adria (Rovigno), Veneto	55	3	5.5	Urban (outside the city)

Table 1: Table summarising the cemeteries considered in this chapter (appendix 3)

Table 1 can be used to give an indication of the frequency of the custom in this region. It shows that the number of burials containing coins in each cemetery varies widely, between 5.5 and 100%. Although it should be noted that the higher percentages tend to be linked to those cemeteries which have fewer overall burials and might not necessarily indicate a popularity of the custom. For example: at Parco Sempione in Milan (app. 3: 8), 100% of burials contain coins, but only one burial excavated.

Interpretation of this range is difficult when looking at so few cemeteries, but what it does highlight is that not everyone was observing the custom. This could be explained in terms of variation in afterlife belief; if the deposition of a coin is in reference to a particular conviction, the absence of the coin might indicate an alternative belief. There are problems with this approach: it implies that every coin is deposited for the same reason, whether it was intended as payment to Charon or for some other purpose, which one should be careful not to assume (see chapter 8, section 8.10). Similarly, it also implies that the occupants of those graves without coins also share comparable afterlife beliefs, which is also wrong (see chapter 1, section 1.1.2). It is more appropriate to interpret this evidence as a general indication of the popularity of the custom in the cemeteries studied. On average c. 30% of the total numbers of burials contain coins.

In regards to the location of the sites, there is no pattern to the data; those cemeteries with a much higher or much lower percentage of coin burials are not confined to a single region. This would indicate that deposition of coins in burials, in these cemeteries at least, are not linked to any specific geographical location. A regional analysis of coins in burials within Italy would be a method to test this theory.

In addition, there appears to be no link between coin deposition and site type, with high percentages of coins found in both rural and urban contexts. The dominance of urban sites in the database is perhaps noteworthy, although the possibility that this is linked to the type of sites excavated and published should be considered. Similarly, the absence of military sites might be of significance, although many more

cemeteries from each of the site types would be need to be considered to confirm whether this is a pattern.

The variation identified in the number of burials containing coins, which appear to lack any observable patterns, suggest that the practice might be connected to the personal choice of those involved in the burial process rather than local or regional traditions. This theory is explored further throughout the analysis in section 4.4.

4.3 Pre-Roman burials containing coins

The Roman imperial period is the focus of this work but, it is also necessary to briefly consider at the earliest deposition of currency in burials in Italy. This is to investigate the possible origins and evolution of the custom and if/how it changed in the Roman period. Can correlations be made between the use of *aes rude* as early as the 8th century BC, and the placement of coins during Roman rule? It is not intended to be a comprehensive discussion of the origins of the custom, it is included merely to give a background to the main analysis of the Imperial examples in section 4.4.

This section will give a chronological overview of the presence of bronze ingots and coins in burials in Italy, dating from the 8th century to the early imperial period in the middle of the 1st century BC.

The aim is to summarise the information from this period, concentrating on the number of burials which contain a monetary contribution, the metal type of the coin, how many are placed in a single burial, the sex of the deceased and the other grave goods. This will be used to interpret when and where the practice occurs, and the function of the ingot/coin. As it is not possible in the scope of this PhD to look at a large number of examples from this period, the summary will be based on the work of Bergonzi and Agostinetti, who have investigated the deposition of bronze ingots and coins in graves from throughout Italy (Bergonzi and Agostinetti 1987).

Aes rude

Aes rude and the larger *aes signatum* are small bronze ingots which have been dated, based on their site and burial contexts, to between the 8th and 4th centuries BC,

although they could have origins in the Bronze Age (Milne 1942, 27). Pliny discusses, in his Natural History, the use of copper alloy fragments in the time of the Kings, before the use of coins (Pliny 33.13). Consequently, they are most often regarded as the immediate precursor to coinage.

A study of the chemical properties of *aes rude* was undertaken in 2006, using a sample from Sardinia. This experiment exposed sectioned fragments to a number of micro-chemical analyses. The results showed that they could not be used for any other functional purpose, including casting and reworking, because of the deliberate inclusion of iron into the alloy composition (Ingo et al. 2004, 867). This supports the hypothesis that their function was to form a medium of exchange, like coins, since their worth was based upon appearance and assumed value as opposed to potential use (Ingo et al 2006, 517).

Bergonzi points out that the identification of a scale weight associated with the fragments of bronze has not been possible, but does concede that it is probable that fragments and entire ingots were weighed (Bergonzi and Agostinetti 1987, 172). The use of weights and scales are attested in Etruria from at least the 6th century BC (Bergonzi and Agostinetti 1987, 172), suggesting that regulation may have been a later development. It seems likely that the *aes rude* fit into the sequence of evolution of coinage in this area, and did indeed perform a currency-like function.

Aes rude and coins in burials

Aes rude are found in burials from the 8th century BC, with examples from Tarquinia, Vetulonia and Caracupa (Bergonzi and Agostinetti 1987, 174). The percentage of burials containing *aes rude* varies in each of the areas; with c. 1% (2 out of 205) of burials at Vetulonia containing bronze ingots, c. 1.8% (2 out of 110) at Tarquinia and c. 3.2% (3 out of 95) at Caracupa (Bergonzi and Agostinetti 1987, 174).

Concentrating on the burials from Tarquinia, Grave I contained pottery vessels, a crested bronze helmet, a bronze spear and sword, a lead disc and shells (Hencken 1968, 115-123). The second example, Grave II, contained similar equipment with the inclusion of pottery vessels, a bronze helmet, a spear, a razor, brooches and

decorated gold fragments (Hencken 1968, 172-178). This pattern can also be seen in the examples from Vetulonia. For example, grave 7 contained pottery vessels and evidence for two spearheads (Pasqui 1885, 118).

Based on the grave goods, the burials have been interpreted as that of warrior males, suggesting a link between the practice and higher status individuals. Out of the 8 burials dating to this period, all contain male remains (Bergonzi and Agostinetti 1987, 174). The location of the coins in these examples vary, with *aes rude* found in around the head, and to the right of the body (Bergonzi and Agostinetti 1987, 174). This implies no connection between the position of the coin and a specific belief. The fact that the burials often contain multiple offerings is also worth noting.

Between the 7th and 5th centuries BC, the use of *aes rude* in potentially wealthier burials continues, although they are now also found in female tombs. Bergonzi and Agostinetti give examples from the necropoles of Narce, Orvieto, Cerveteri, Populonia and Asciano (Bergonzi and Agostinetti 1987, 174/176-177). Between 2 and 8% of the burials excavated at each of the areas contained *aes rude*, with one notable exception; Cannicella in Orvieto, where 38 of the 87 tombs excavated (43.6%) contained bronze ingots (Bergonzi and Agostinetti 1987, 174). Cannicella is a clear exception to the 'rarity' rule, perhaps providing evidence for a local tradition for the deposition of bronze ingots.

Based on the type of grave goods that are also being deposited, Bergonzi and Agostinetti argue that the practice is still associated with wealthy burials (Bergonzi Agostinetti 1987, 176). For example, grave 7 from Narce contained, in addition to the *aes rude*, a gold ring, brooches, bronze, glass and ceramic vessels and two small bone dice (Mancini 1884, 386). Grave 34 also contained two silver spirals, a patera, a brooch, an iron spearhead, two iron brooches and ceramic vessels (Mancini 1884, 419). The inclusion of precious metal objects, such as gold and silver, is rare and can be legitimately attributed to wealthier individuals.

No pattern can be identified in the quantity of *aes rude* placed in a single burial; normally it is between one and three ingots, but sometimes getting as high as eight

(Bergonzi and Agostinetti 1987, 177). The exception to this is tomb 107 from Narce, which contained 88 *aes rude* (Bergonzi and Agostinetti 1987, 177). This tomb also contained 16 fragments of gold foil, three fragmented silver brooches, a decorated fragment of bronze, four bronze brooches, a glass ring and bronze and ceramic vessels (Pasqui 1885, 618-620). It is difficult to determine reasons for the inclusion of so many *aes rude*. Provision for the afterlife is a possibility but considering the relative wealth of the other grave goods, it could also be linked to a display of wealth and status. Burials with the position of the ingot noted show placement at the feet and the head. However, this is based on only two examples so caution should be taken when making interpretations.

In the 5th century BC we also get the beginning of the insertion of coins in burials. In both the Pontecagnano and Paestum cemeteries, deposition of coins is limited to relatively few burials. For example, 1 out of the 1500 burials at Paestum contained coins. These coins were copper alloy and of southern Italian mint (Bergonzi and Agostinetti 1987, 186). Unfortunately, there is no information on the sex/age of the deceased and the positions of the coins are unknown, therefore no conclusions on possible associations can be made.

The period between the 4th and the 3rd centuries BC shows a different story again. For analysis, Bergonzi and Agostinetti look specifically at the sites of Civita Cast, Tarquinia, Rome Esquiline, Palestrina and Ardea (Bergonzi and Agostinetti 1987, 177-179). In this period, the inclusion of *aes rude* is still relatively infrequent, ranging from 3.4% to 38.8% of burials in each excavated site (Bergonzi and Agostinetti 1987, 174).

In the 4th century BC, we also see the beginnings of the production of local types of *aes rude*, for example, the mark of two crescents and a star (Bergonzi and Agostinetti 1987, 178), as well as the use of local forms of coinage from the late 4th and early 3rd centuries BC (Leighton 2004, 154). For example, one burial from Ripagretta at Tarquinia contained six *aes rude*, one *aes signatum* (larger bronze ingots) and three coins (Bergonzi and Agostinetti 1987, 174). This shows that even with the movement towards the use of coinage in burials, it does not immediately replace *aes rude*; it is

only with the dying out of the local currencies through the increasing pressure from Rome, that *aes rude* begin to disappear. Another example of this is Orvieto, where there are two *aes rude* and two coins in a single burial (Bergonzi and Agostinetti 1987, 179). In such a brief overview, it is difficult to hypothesise about the relationship between the possible age/sex of the deceased and the use of the bronze ingots.

In the 4th century, the number of burials containing coins increases slightly. Examples can be found at Pontecagnano, Paestum, Ponticelli, Taranto and Metaponto (Bergonzi and Agostinetti 1987, 186). Again these are relatively few in number, only between 1.5% and 8.9% of the burials excavated contained coins. These coins are of Greek colonial origin and some Sicilian examples from a burial at Paestum (Bergonzi and Agostinetti 1987, 186). In most cases, the coins are copper alloy but there are some silver examples (these have not been analysed).

Very little information exists on the position of the coin, but there does not appear to be a pattern; they are found around the head, the hand and the legs. This is repeated in the 3rd century with examples from Paestum, Taranto and Metaponto (Bergonzi and Agostinetti 1987, 186). At these sites, the percentage of coins in the burials ranges between 5.2 and 45.5% (Bergonzi and Agostinetti. 1987, 186). In general, they are copper alloy with the odd silver example, and are of southern Italian origin. Not enough information exists to hypothesise about the relationship between this practice and the age/sex of the deceased.

Conclusion

In summary, this brief chronological overview shows a limited practice beginning in the 8th century BC with the deposition of *aes rude*. In this period, it appears to be restricted to males of an upper level of society, perhaps a warrior class. Between the 7th and 5th centuries BC, the practice becomes more widespread, including female burials, although it appears that they remain confined to the graves of wealthy individuals.

In the 5th century BC coins begin to appear in Greek colonial sites, with examples from both Pontecagnano and Paestum. This would support the hypothesis that the use of coinage in burials originated in Greece and was brought to Italy by the colonists. Coins have been found in burials dating to the early 5th century BC in Corinth (Palmer 1964, 84, 238), which pre-dates the deposition of coins in burials in Italy. However, the clear pre-existing tradition of currency used in burials prior to this point throughout Italy should not be overlooked.

In the 4th and 3rd centuries BC we get examples with more than one type of currency; *aes rude, aes signatum,* Greek coinage and the use of local types of *aes*, occurring, contemporaneously with the increase in spread of Greek coinage. It is not until the end of the 3rd century that *aes rude* is replaced entirely, at the same time as it also disappears from circulation. It is likely that this can be attributed to the increase in influence of Rome and the more widespread use of Roman coinage in the 3rd century BC, causing the eventual dying out of the local currencies (Leighton 2004, 155).

The function of *aes rude* is difficult to determine. They could be intended as provision for the journey to the afterlife but there is no literary or artistic evidence which links the deposition of *aes rude* to a specific deity. Given the rarity of their deposition, and the wealthy nature of the associated grave goods, it seems more likely that they are a display of identity, wealth and status. The degree of Greek influence in the 4th and 3rd centuries BC, suggests that these coins are linked to payment to Charon. To confirm this assertion, a detailed study of coins in burials in Greece from the 5th century BC, burials in Sicily and those in southern Italy, would be required. Unfortunately this is not possible in this study and is something highlighted for future work (see Chapter 8).

4.4 Coins in Roman burials

The previous section has shown a limited practice, with very few people observing the custom. In the imperial period, deposition of coins in burials becomes much more frequent and widespread.

4.4.1 Chronological distribution of burials containing coins

A study of the chronological distribution of burials containing coins was undertaken to observe how the custom changes over time. Is there any period in which this practice is more common?

The date of the burial is used in this investigation, as there can often be a gap between the minting of the coin and its deposition (see section 3.3.2). As no burial can be dated to a single year, the midpoint of the date range is used. In Italy, this range is between 50 and 150 years. The possibility that some of the burials have been placed in the wrong date range should be considered. Information exists for the date of 353 burials.

The data has been used to create two graphs. The first divides the burials in 100-year phases. This should minimise the problems with identifying the correct date of the burial, making it more likely they are considered in the correct time period. The second further subdivides the burials into 50-year phases. This will give a more detailed picture of the chronological changes.

100-year date ranges

Figure 9 shows the percentage of burials in each of the 100-year periods. It should be noted that the category 'BC' does not include the pre-Roman or Republican examples, it refers only to the early imperial period.

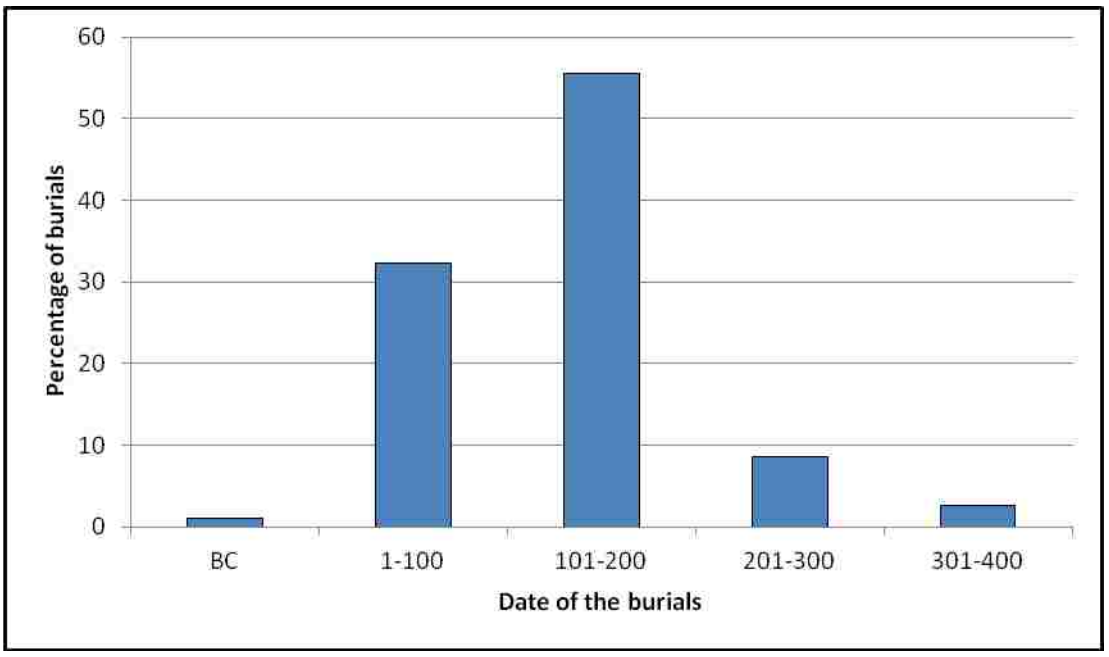

Figure 9: Graph showing the burials divided by date into 100-year periods (references: app. 3)

The graph shows a rapid uptake of the custom, from only 1.1% in the early imperial period, to 32.3% by the end of the 1st century AD. The popularity of the custom continues to grow, until it reaches its peak in the 2nd century AD at 55.5%. A significant decrease can be observed in the 3rd century, a trend which continues into the 4th century AD.

50-year date ranges

Figure 10 gives the percentage of burials within each of the 50-year date ranges. Again, 'BC' refers only to the early imperial period.

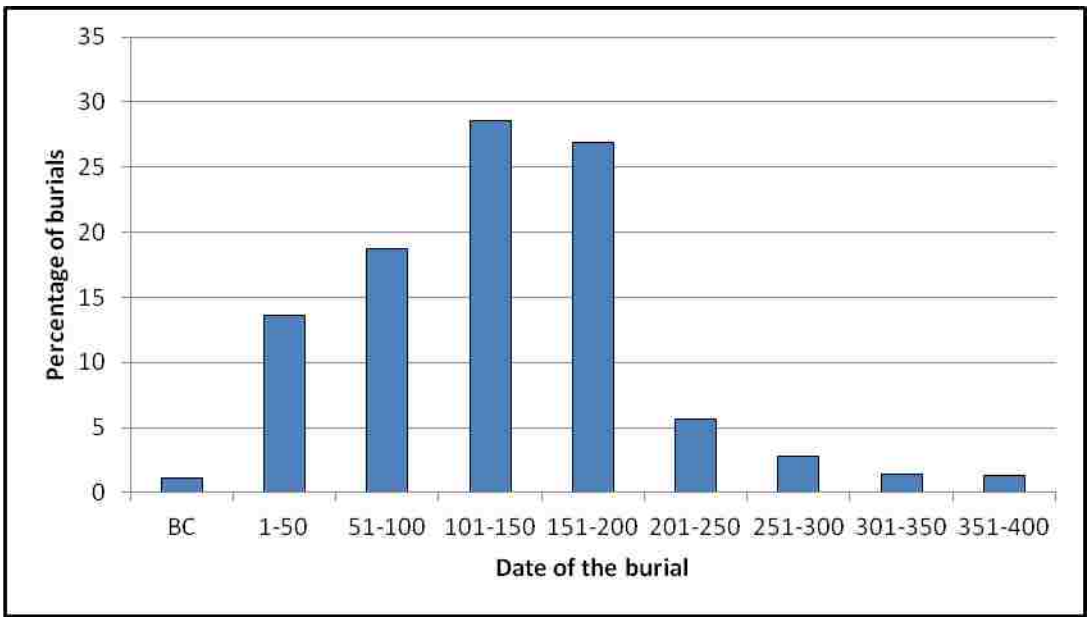

Figure 10: Graph showing the burials divided by date into 50-year periods (references: app. 3)

The graph shows the same general trend as figure 9, although the uptake in the practice is much more gradual. A significant increase can still be identified between the early imperial period and the 1st century AD, although this is staggered from 13.6% in the first half of the 1st century to 18.7% in the second half of the 1st century AD. The peak in the practice is observed in the first half of the 2nd century at 28.6%, dropping slightly to 26.9% in the second half of the century.

The most dramatic change can be observed in the first half of the 3rd century, when the custom drops to only 5.6%. This decline continues with only 2.8% of the burials containing coins dating to the second half of the 3rd century, 1.4% in the first half of the 4th century and 1.3% in the second half of the 4th century AD.

Conclusion

Both graphs show a similar trend, with a rapid increase in the practice between the early imperial period and the 1st century AD. This suggests that the custom was most popular when it was first introduced. The existence of an established tradition for the deposition of coins in burials may have made the adoption of the practice easier, although it is significantly more widespread, both socially and geographically, in the imperial period. Interestingly, it is in the reigns of Domitian (81-96), Trajan (98-

117), Marcus Aurelius (161-180) and Commodus (177-192), a clustering of coins in the spring of Anna Perenna is also identified (Catalli 2002, 36; Piranomonte 2010, 201).

The drop in practice, observed in the first half of the 3rd century, is equally as significant. It implies a change in practice, with fewer people observing the custom. Explanations for this are difficult to determine. It could indicate a change in belief, but it is more likely that there is a change in practice, that the deposition of coins in burials is a practice only observed by a few traditionalists. This is in contrast to the spring data, which shows a clustering of the deposition of coins in the second half of the 4th century AD (Catalli 2002, 36; Piranomonte 2010, 201).

4.4.2 Comparison of coin date to the burial date

A comparison between the coin and the burial date has been undertaken to determine the amount of time that the coins were in circulation, before being deposited in the burials. If the coins have a long circulation period, they may have been specifically chosen for the burials.

Unfortunately, not all the burials in the database have the date of the grave and the coin; this reduces the dataset. Further problems are encountered where the coins and the burials have been dated to long date ranges. In order to prevent misleading results, the latest date for the coin and the earliest date for the burial have been used to calculate the shortest possible circulation period. Where the burials contain more than one coin, the coin with the earliest date is used for consideration. The longer circulation period of silver coins should be considered, in particular Republican *denarii*. In the absence of more securely datable objects, the coin will have been used to date the burial; therefore, the over-representation of contemporary coins should be considered.

274 burials in the database have the information for the coin and burial date. For analysis, the dataset has been divided into the following categories: contemporary; under 10 years; 11-25; 26-50; 51-75; 76-100; 101-200 and over 200. The term contemporary is used where the coin has been minted and deposited within the date

range of the burial. In most of these, it is likely that the coin has been used to date the burial. Less than 10 years is also considered roughly contemporary. The remaining are 25 year increments, since this allows for closer analysis of the changes over time. Those which pre-date the grave by over 100 and 200 years are considered unusual, and are therefore analysed separately.

Figure 11 shows the number of years that a coin has been in circulation before deposited in the burial (as a percentage):

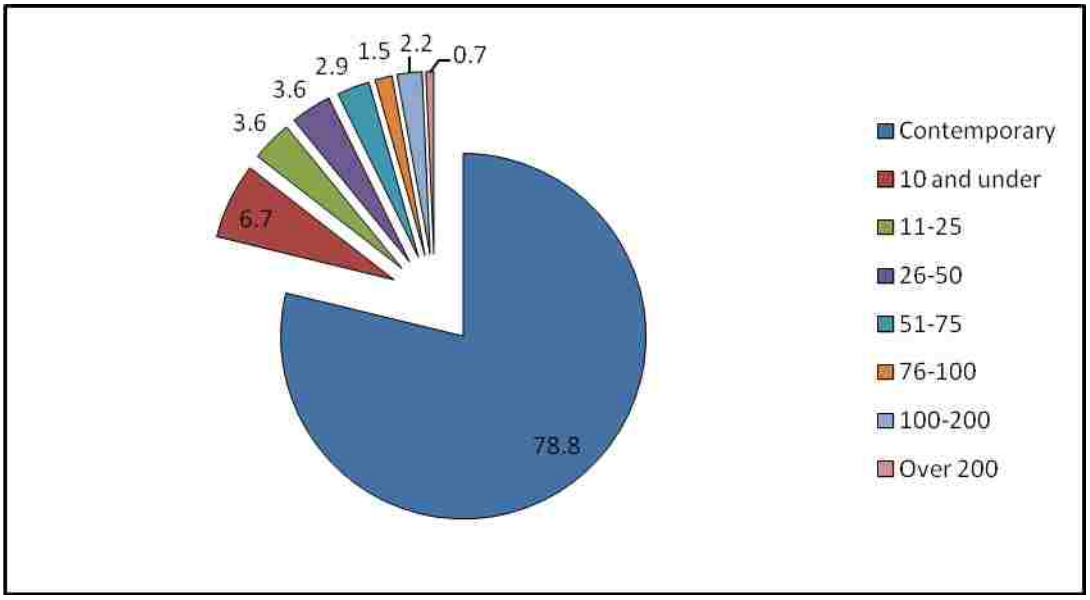

Figure 11: Chart showing the number of years the coins were in circulation before being deposited (references: app. 3)

Coins contemporary with the burials are most common at 78.8%. This suggests that the coin has been taken from general circulation to be used. As the circulation period of a Roman copper alloy coin cannot be determined, it could be argued that all coins minted between 10 and 100 years before being deposited, are to be expected. This gives a total of c. 97% of the coins placed within their expected circulation period.

Significantly fewer burials contain coins minted over 100 years before being deposited in the grave (2.9%); only eight within the Italy database. Given the rarity of their use, can specific coin choice be argued? Could they be family heirlooms? The details of the burials are presented in table 2:

Burial	Sex/age	Burial date	Mint date of coin	Pierced (Y/N)	Denomination	Min no. of years	Grave goods	Reference
S. Maria in Campis, Perugia (33A)	-	AD 250-300	AD 141	N	As Antoninus Pius (RIC 159)	109	10 fragments of iron, a lamp, a cinerary amphora and other ceramic fragments	app. 3: 11.38
Sub Ascia, Modena (9)	Adult	AD 14-37	101-97 BC	N	Quinarius C. Fundanio (RRC 326)	110	9 other coins, bronze mirror, gold ring, fragments of iron nails, fragment of a bone pin, glass and ceramic vessels, cinerary urn	app. 3: 9.5
Angera Romana, Milan (III-26)	-	AD 150-200	AD 14-37	N	As Tiberius (Agrippa) (RIC 161)	113	Iron object, iron nails, lamp fragment, ceramic vessels, carbonized bread, carbonized wood	app. 3: 7.43
Via Cappuccini, Brindisi (143)	-	AD 201-400	AD 87	N	As of Domitian (RIC 354b)	114	None	app. 3: 1.17
Gubbio, Perugia (19 and 187)	Adult	AD 250-300	AD 103-111	N	As Trajan (RIC 543)	139	A second coin, unguentarium and iron nails	app. 5: 10.35
Quadrella in Isernia (103)	-	AD 222-300	27BC-AD14	N	As Augustus (RIC 248)	208	1 other coin, ceramic jug, a bowl, a lamp and hobnails	app. 3: 2.18
S. Maria in Campis, Perugia (44)	-	AD 50-100	196-173 BC	N	As Republican	223	2 other coins, 6 balsamario, glass fragments, 2 lamps, ceramic cup and other pottery vessels	app. 3: 11.11

Table 2: Table showing the details of the burials containing coins in circulation over 100 years before they were deposited

The eight burials contain coins minted between at least 109 and 247 years before being deposited and the details in the table show little correlation between the burials. They are found in cemeteries throughout Italy: S. Maria Campis and Gubbio in Perugia, Sub Ascia in Modena, Angera Romana in Milan, Via Cappuccini in Brindisi and Quadrella in Isernia. This suggests that these irregularities are not a result of local traditions.

The burials also vary in date. The earliest is Burial 9 from Sub Ascia which has been dated to c. AD 14-37 (app. 3: 3.9) and the latest is Burial 143 from Via Cappuccini in Brindisi dated to c. AD 201-400 (app. 3: 1.17). This information shows that these irregularities are not confined to burials dating to a specific period.

Unfortunately, only three burials contain information on the age of the deceased. Burial 9 from Sub Ascia contained the remains of an adult (app.3: 9.5), as did burial 19/187 from Gubbio (app. 3: 10.35). Burial 183 from Gubbio contained the remains of an infant. It would be wrong to base interpretation on only three examples, but it is tentatively suggested that there is no link between the ages of the deceased in these irregularities. Regrettably, the sex of the deceased in every example is unknown so no pattern can be identified.

Two of the burials contained Republican silver coinage. Burial 9 from Sub Ascia contained a *quinarius* dating to 101-97 BC (app. 3: 9.5) and burial 183 from Gubbio contained a *denarius* dating to 147 BC (app. 3: 10.30). The long circulation period of Republican suggests the possibility that these coins could still have been in general circulation. No evidence exists to suggest that they were specifically chosen for the burial based on the date of the coin.

The associated grave goods in the burial from Sub Ascia imply that the deceased (or their family) was wealthy. The inclusion of 9 other coins in the urn as well as a bronze mirror, gold ring, fragments of iron nails, fragment of a bone pin, glass and ceramic vessels, cinerary urn, is a rarity in the database and may indicate a higher status individual (app. 3: 9.5). If this is the case, it seems more likely that the coin was included because of its metal type and not the mint date. None of the other

burials in the table above could be considered wealthy; therefore, the deposition of early coins cannot be linked to the wealth and status of the deceased.

The latter example is described as pierced, which could account for a longer circulation period. The coin is described as in a good state of preservation, so it seems unlikely that it was worn on the pyre, perhaps this as a jewellery item that was given as a grave good or included for protective purposes. The reason for piercing coins is discussed in more detail in section 3.3.6, but it is possible that the coin was pierced because it was older. However, it is impossible to tell when a coin was pierced and the coin could have been altered when it was new, perhaps for personal reasons that cannot be identified in the archaeological record, such as a preference for that reverse image.

More unusual are the imperial copper alloy coins with a long circulation period. Five of the burials contained imperial *asses*: burial 33A in S. Maria in Campis (app.3: 11.38), III-26 from Angera Romana (app. 3: 7.43), 143 from Via Cappuccini (app. 3:1.17), 19/187 from Gubbio (app. 3: 10.35) and 103 from Quadrella (app. 3: 2.18). The coins vary in date. The earliest is an *as* of Octavian dating to 27BC-AD14 from the burial at Quadrella. The latest is an *as* of Antoninus Pius dated to AD141 from the burial at S. Maria in Campis. It is possible that they have been chosen based on the mint date of the coin, but there is no evidence to support this. It is equally as possible that the coins were still in general circulation.

Conclusion

In summary, coins contemporary with the burials are most frequently deposited (78.8%), implying that coins are being taken from general circulation to be used in the grave. Since it is difficult to assign a specific circulation period to copper alloy coins, those which pre-date the burial by up to 100 year are not considered unusual. This means that 97% of the coins have been deposited within their expected circulation and no evidence exists for specific coin choice, based on the date of the coin. It appears that the observation of the custom is most important, not the type of coin used.

Less common are burials that contain coins minted over 100 years before being deposited, only eight out of 274 (c. 3%). Individual analysis has shown that these come from cemeteries throughout Italy and do not, therefore, indicate localised patterns. The burials also date throughout the period of analysis, so the inclusion of early coins cannot be attributed to a particular period. Two of the burials, grave 9 from Sub Ascia and 183 from Gubbio, contained Republican silver coinage. Since these have a longer circulation period, they are perhaps to be expected. The latter example is pierced, which could explain its circulation of at least 248 years before its inclusion in the burial. The coin has ceased to perform a monetary function and instead, is likely to be considered a jewellery item, possibly passed down as a family heirloom. Discussion of the purpose of pierced coins can be found in section 3.3.6.

The inclusion of copper alloy coins with a long circulation period is more unusual. It is possible that they remain in circulation longer in Italy, and were not specifically chosen. Where the condition has been included in the excavation report, the coins are described as worn, which supports this theory. Nevertheless, the choice of coin is personal to those involved in the burial process, and rarity of these examples presents the possibility that consideration of the date has been made; although this remains speculative.

4.4.3 Metal type of the coin

507 records of coins in the Italy database have information on the metal type of the coin. As the conventions for the classification of the *antoninianus* can vary between publications, described as silver, silver plated or copper alloy, they have been separated in the study as billon. Five burials contain multiple coins, comprising more than one metal type (app. 3: 2.3, 9.5, 9.12, 10.34 and 11.1). These will be discussed separately to determine why more than one metal type would have been included; do different coins have different meanings?

Three analyses will be undertaken. The first looks overall at the metal type of the coins to identify which is most commonly deposited. The second looks at how this changes through time, based on the date of the burial. This is intended to examine whether the devaluation of silver content had a measurable effect on the practice.

The third examines changes over time, using the date of the coin. This study takes into consideration the coins from mixed deposits.

Table 3 shows the percentage of copper alloy, silver and billon coins in the Italy database:

Metal Type	No. of coins	Percentage
Copper alloy	493	97
Silver	9	2
Billon	5	1

Table 3: Metal type of coins in burials in Italy (references: app. 3)

The table shows that copper alloy coins are most frequently deposited at 97%; silver is much less common at 2% and the *antoniniani* at 1%. The lack of any gold coins should also be noted, especially when considering the practice in areas outside imperial boundaries (see Chapter 6). This implies that the value of the coin is not important; it is the symbolic act of placing the coin.

This argument is given weight when considering that even within the copper alloy coins, there is a propensity towards the lower value denominations. For example, of the 409 coins which have the denomination noted, 73% (311) are *asses*. Of the remaining, 16.2% are unclear but likely to be *asses* or *dupondii*, 3.8% are *dupondii*, 3.3% are *sestertii*, 1.8% are *folles*, 1.2% are *semisses* and 0.7% are *nummi*.

This is a pattern which can also be identified with the deposition of coins in springs. For example, the majority of coins at the spring of Vicarello near Rome are copper alloy (Panvini Rosati 1967/68, 62-64). The dominance of base metal coins in springs is not confined to Italy and can be observed throughout the Empire (Sauer 2011, 517; Sauer 2005).

Burials containing a single precious metal coin

Three of the burials contain a single silver coin and one a single *antoninianus*. These examples will be described individually, in order to determine why a precious metal coin would have been used as opposed to the more common copper alloy.

Burial 183 from Gubbio in Perugia has been discussed in 3.3.2. It is a burial of an infant dating to the 1st century AD and containing a pierced Republican *denarius* (app. 3: 10.30). It is probable that it has been pierced because it is silver. The location of the coin in the burial is unknown but it can be argued that it was being worn by the deceased. As will be discussed in 3.3.6, the pierced coins are unlikely to be linked to the Charon practice.

Burial 220, also from Gubbio in Perugia, was the grave of an infant, containing an illegible Republican *denarius* (app. 3: 10.32). It is likely that the coin has been pierced because of the metal type and cannot be assumed to be payment to Charon, it might simply be a jewellery item.

Burial 28 from Adria (Rovigno) in Veneto also contained an illegible Republican silver coin (app. 3: 17.3). Interpretation of the function is difficult, since it is not pierced, it could be payment to Charon. Although there are a large number of other grave goods, they do not suggest the burial of a wealthy individual. It is probable that the silver coin was the choice of those burying the deceased.

Burial 231 from Portorecanti in Macerata contained an *antoninianus* of Maximian (RIC 18b) dated to AD 295-299, no other grave goods were found (app. 3: 1.66). Function of the coin based on the metal type is difficult to determine, it must be the result of those involved in the burial process.

Overall, the function of the coin in those burials containing *denarii* and the *antoninianus* is difficult to determine. It is possible that the coins have been pierced, because they are precious metal, although, reverse image or mint date, could also have a bearing on which coin was pierced. Based on the other grave goods, there does not appear to be a correlation between the metal type of the coin deposited and the status of the deceased. This is discussed further in section 3.4.7. The use of precious metal coins appears to be the choice of the individuals involved in the burial process. It is interesting that the silver coins are Republican in date, although these tend to have a longer circulation period.

Changes in metal type over time – based on the date of the burial

358 of burials have information on the date of the burial and the metal type of the coin. Since this sudy begins with the emperoship of Augustus, it should be noted that the category 'BC' refers only to the early imperial period.

Figure 12 shows how the metal type of the coin deposited in the burial changes over time. Billon refers to *antoniniani*:

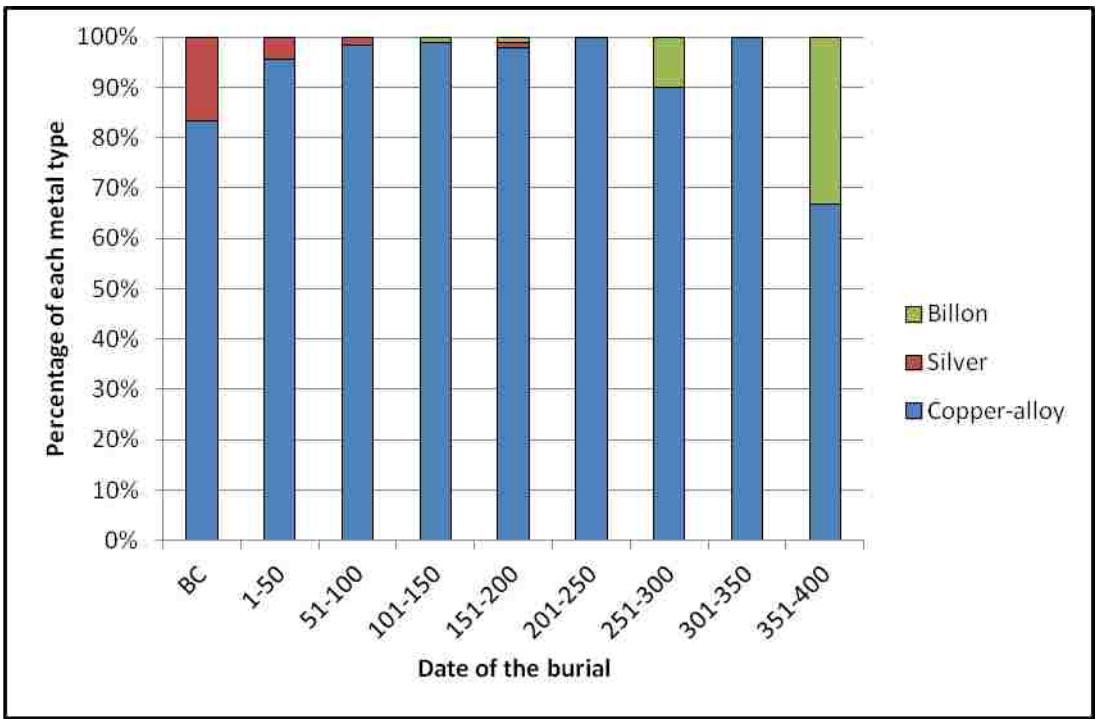

Figure 12: Graph showing the metal type of coins in each burial, divided by burial date (references: app. 3)

The graph shows the dominance of copper alloy throughout the period of analysis. Silver coins are most frequently used in early imperial burials (16.7%), decreasing in the first half of the 1st century to 4.3% and 1.6% in the second half of the 1st century. A single *denarius* can be observed from the period AD 150-200, but given the longevity of the circulation of Republican *denarii*, this is expected. It should be noted that two of the burials containing silver coins could not be included in the graph, as the information on the burial was limited.

Changes in metal type over time – based on the date of the date of the coin

A graph was also created looking at the change in metal type based on the date of the coin, as opposed to the burial (see figure 13). It should be noted that 'BC' also includes the Republican coins, which have been deposited in imperial period burials.

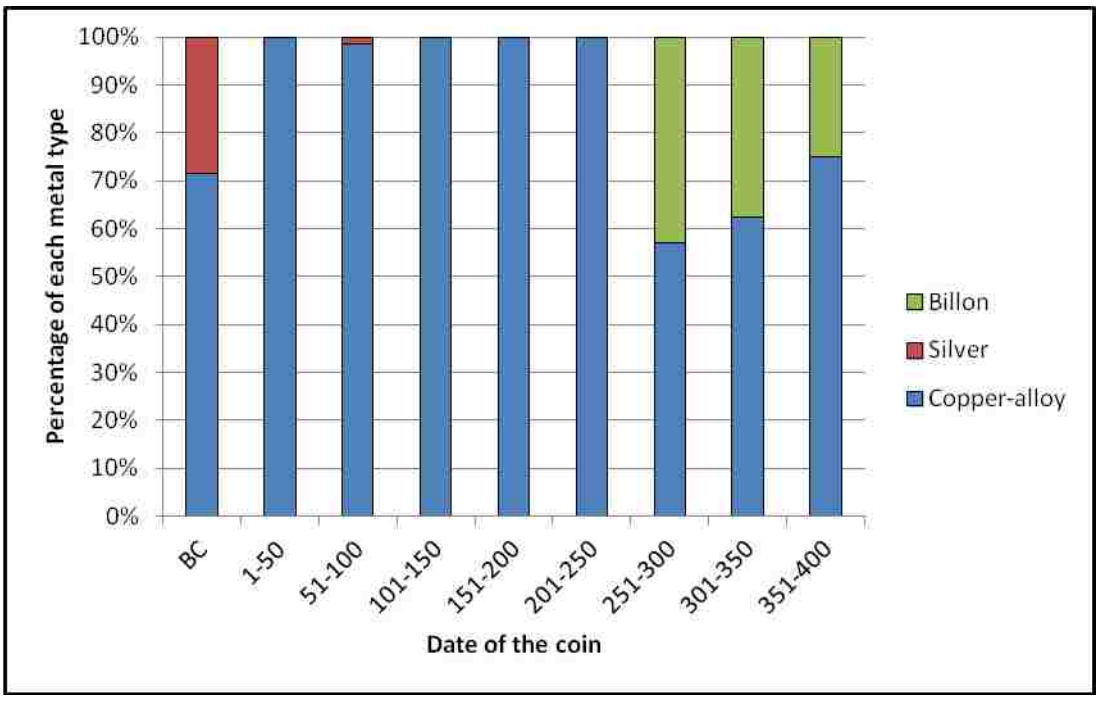

Figure 13: Metal type of the coin deposited, divided by the date of the coin (references: app. 3)

The graph confirms the observation above that the silver coins are primarily Republican in date, with the exception of the two *quinarii* in Burial 9 from Sub Ascia in Modena. One of these was of Augustus dating to c. 25-23BC (RIC 1a) and the other was illegible but dated to 93-91 BC (app. 3: 9.5).

The *antoniniani* date from the second half of the 3rd century AD. With the introduction of these coins by Caracalla in AD 214 (Reece 2002, 19), it is no surprise that they appear at this point in the database. What is notable is that they remain rare, and although weighing half of a *denarius*, there remains a reluctance to include coins with a then still high silver content, which was c. 48% (Reece 2002, 19).

Burials containing multiple coins of more than one metal type

As mentioned above, five burials contain multiple coins of more than one metal type. These are discussed individually to investigate why more than one metal type would have been included. Is this coincidental, or do they have different symbolic meanings?

Table 4 gives the details for all the burials containing coins of more than one metal type.

Burial	Age/ sex	Date of burial	Coins	Location of the coin	Grave goods	Reference
Sub Ascia, Modena (9)	Adult	AD 14-37	1. As of Tiberius (34-37): RIC 53, 54, 65 2. As of Tiberius (22-30): RIC 80 3. As of Tiberius (34-37): RIC 83 4. As of Tiberius (22-30): RIC 80 5. As of Tiberius (22-23): RIC 45 6. Sestertius of Tiberius (21-22): RIC48 7. Sestertius of Tiberius (34-37): RIC 56, 61, 68 8. Unidentified Quinarius (93-91 BC): RRC 373 9. Quinarius of Augustus (25-23BC): RIC 1a 10. Quinarius of C. Fundanio (101-97BC): RRC 326	Outside the urn Inside the urn Inside the urn Inside the urn Inside the urn Inside the urn Inside the urn Inside the urn Inside the urn Inside the urn	Bronze mirror, gold ring, fragments of iron nails, fragment of a bone pin, glass and ceramic vessels, cinerary urn	app. 3: 9.5
Sub Ascia, Modena (20)	-	AD 41-54	1. Denarius of M. Aemilius Scarus (58BC): RRC 1a 2. As of Tiberius (36-37): RIC 64	On a dish In the burial pit	Iron nails, glass vessel Samian cup and other ceramic fragments	app. 3: 9.12
Gubbio, Perugia (226)	-	-	1. Victoriatus of Metellus (194-190BC): RRC 132/1 2. Illegible as	Unknown Unknown	Part of a plate, a lamp and a fragment of iron	app. 3: 10.34
S. Maria in Campis, Perugia (44)	-	AD 50-100	1. Denarius of Q. Caecillio Metello Pio? (124-103BC) 2. Republican as (196-173BC) 3. Unidentified as	Above the urn Unknown Unknown	6 balsamario, glass fragments, 2 lamps, ceramic cup and other pottery vessels	app. 3: 11.11
Quadrella, Isernia (8)	Infant	AD 350-400	1. Illegible antoninianus 2. Illegible antoninianus 3. Copper alloy coin of Valentinian dynasty (364-378)	Between tombs Between tombs Between tombs	Ceramic fragments	app. 3: 2.3

Table 4: Table giving the details of the burials containing coins of more than one metal type

Fewer patterns can be identified in those burials containing more than one metal type. Table 4 shows that the burials come from different cemeteries: burials 9 and 20 from Sub Ascia (app. 3: 9.5 and 9.12), burial 226 from Gubbio (app. 3: 10.34), burial 44 from S. Maria in Campis (app. 3: 11.11) and burial 8 from Quadrella (app. 3: 2.3). This implies no local tradition for the deposition of coin of more than one metal type in the same burial.

The burials date throughout the period of analysis. Burial 9 from Sub Ascia is the earliest, dating to c. AD14-37 (app. 3: 9.5), and burial 8 from Quadrella is the latest, dating to c. AD 350-400 (app. 3: 2.3). This evidence shows that there is no correlation between the date of the burial and the inclusion of multiple coins of more than one metal type.

In order to investigate whether the coins of different metal type performed different functions, the location of the coins in the burials has also been recorded in the table. Three of the burials lack information on the position of the coin. The find-spot of both the coins in burial 226 are unknown (app. 3: 2.3). The *denarius* in burial 44 at S. Maria in Campis is noted as above the urn, the location of the two *asses* is unknown (app. 3: 11.11). Similarly, the coins from Quadrella are described as 'between the tombs' makes interpretation difficult. Considering the lack of data on these burials, interpretation of the function of the coin cannot be made.

Both the cremation burials from Sub Ascia (9 and 20) note the location of the coins. Burial 9 had an *as* outside the urn and 4 *asses*, two *sestertii* and three *quinarii* inside the urn (app. 3: 3.95). Burial 20 had a *denarius* on a dish and an *as* in the burial pit. As will be discussed in 3.3.5, interpreting the function of the coin in cremations using the location is extremely difficult. It is possible that they represent different beliefs, one intended as payment for Charon and the other as protection for the deceased or provision for the afterlife. To what extent the metal type has an effect on the meaning is difficult to determine. The considered placement of the silver coin on a dish in the latter example suggests that it could have been a specific offering, perhaps for Charon. The other in the pit could have been thrown in by mourners but this is impossible to confirm.

Considering the wealth of the grave goods in the first example: a bronze mirror, a gold ring, two iron knives, patera fragments, ceramic fragments (including Samian), glass vessels and a bone pin (app. 3: 9.5). It seems more likely that the inclusion of the silver coins is indicative of the wealth and status of the deceased. No other burials can be considered as wealthy; it is doubtful, therefore, that the wealth of the deceased led to the inclusion of more than one metal type in a single burial.

Only two of the burials have a description of the age of the deceased. Burial 9 from Sub Ascia contained the remains of an adult (app. 3: 9.5) and burial 8 from Quadrella contained infant remains (app. 3: 2.3). Care should be taken not to create interpretations based on so few examples, but it does appear that there is no connection between the age of the deceased and the deposition of coins of more than one metal type. Unfortunately, none of the burials contain information on the sex of the deceased so interpretation based on this is not possible.

Overall, it is difficult to determine why more than one metal type would be included in a burial. Grave 9 from Sub Ascia appears to be wealthier than the others in the database; therefore, silver coins could have been included as a statement of status. In Burial 8 from Quadrella, the coins are pierced. The coins could have been pierced because of the metal type but other factors should also be considered, such as the reverse image. This is especially significant considering that this burial also contained a pierced copper alloy coin. It is possible that one of the coins is intended for Charon, and the other has a different meaning.

Considering the rarity of the deposition of silver and billon coinage, it can be argued that they are the result of specific coin choice; although, to what extent this is based on the metal type is unclear.

Conclusion

In conclusion, analysis of the metal type has shown that copper alloy coinage was most frequently deposited in the burials (97%), throughout the period of analysis. This suggests that it was the symbolic value of placing the coin that was important, and not the specific coin used.

Silver and billon coins are much less common at 3% and 1% respectively. The silver coinage in the burials discussed above tend to be Republican in date. These are to be expected considering the longer circulation period of Republican silver coinage. The *antoniniani* appear in the database in the second half of the 3rd century AD but remain a rarity. The lack of gold, and infrequency of silver and billon, implies an attempt to preserve the more costly coinage. The only exception to this could be Burial 9 from Sub Ascia, which contained wealthier grave goods and three *quinarii*.

Examination of the burials containing more than one metal type has produced several potential interpretations. It is possible that the coins have different symbolic meanings, one metal type intended as payment to Charon and the other provision or protection for the afterlife. As the majority of coins are copper alloy, it could be suggested that the lower value coin is intended for Charon and the other for provision for the afterlife; but this is entirely speculative. It is clear that the silver coin is a specific choice by those burying the deceased but their motivations are almost impossible to determine. So few examples suggest this is personal to either the deceased or the mourners.

4.4.4 Number of coins in the burial

A large number of burials in the database contain more than one coin; therefore, an analysis of the number of coins deposited in a single burial was undertaken. Can an increase in the number of coins be detected in a particular period? Can it be linked to a change practice throughout the Empire, or, is it indicative of local tradition?

The first examination considers the number of coins in each burial to determine how many are most commonly deposited. The second considers the date of the burial to identify how the number of coins deposited changes over time. The burials with six, eight, 10 and 12 coins will be discusses separately as they are a rarity in the database.

Table 5 shows the number and percentage of burials, and the number of coins that they contain:

No. of coins per burial	Number of burials	Percentage of burials
One	360	85.5%
Two	44	10.5%
Three	8	1.9%
Four	5	1.2%
Five or more	4	0.9%

Table 5: Table showing the number and percentage of burials, and the number of coins they contain (references: app. 3)

The above analysis shows that 85.5% of the burials, 360 in total, contain one coin. Much less frequent are burials containing two coins at 10.5%, with even fewer containing between three and 12 (4%). This suggests that the deposition of a single coin is most dominant.

Explanations for the inclusion of more than one coin are difficult to determine, since the number of coins is the personal choice of those involved in the burial process. It is possible that each of the coins have a different meaning; if one is payment to Charon, the other could be protection or provision for the afterlife. The coins could be offerings from more than one mourner, perhaps friends and family, a method by which they can take part in the burial process. The location of the coins in burials with multiple offerings is discussed in section 3.3.5, as it can help clarify the function of the coin.

The change in the number of coins per burial over time was also investigated. Figure 14 is a scatter diagram plotting the number of coins against the date of the burial:

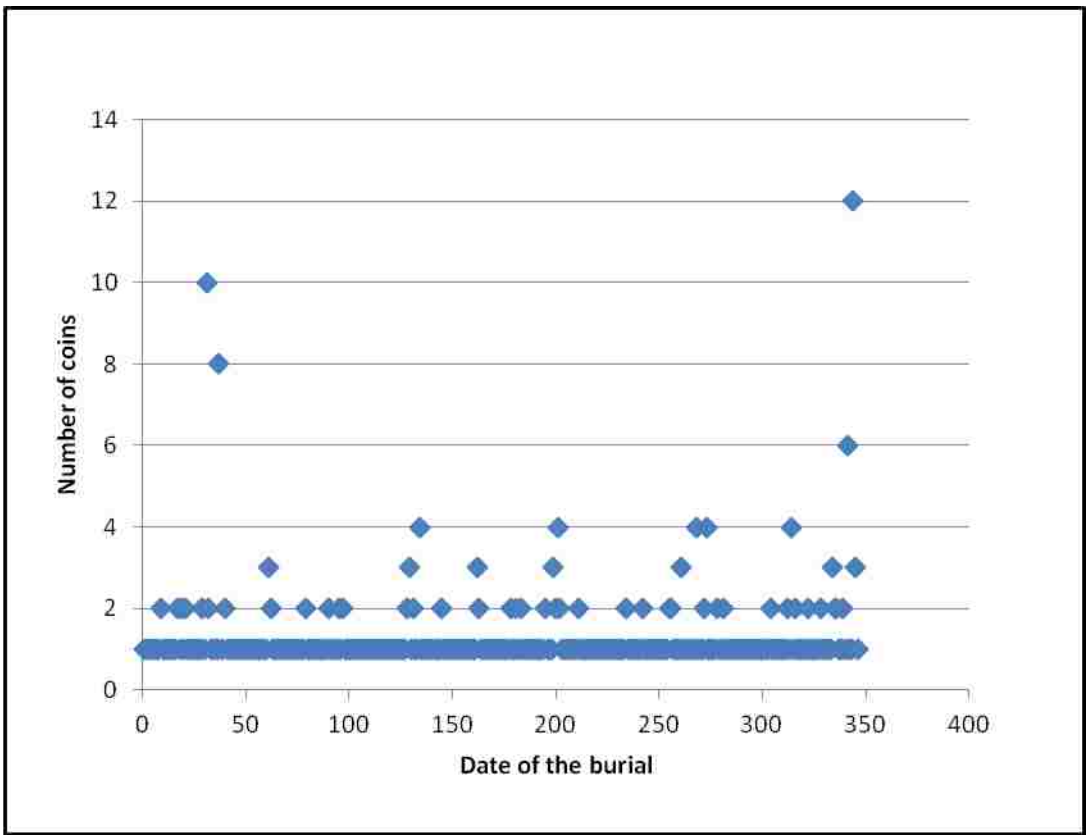

Figure 14: Graph showing the number of coins in each burial, plotted by burial date (references: app. 3)

The graph shows where coins were deposited, inclusion of up to four can be considered usual. And, as expected, the placement of a single coin is common throughout the period of analysis. This trend is also observed with the burials containing two coins, although they are much less frequent.

Little pattern can be identified in the inclusion of three or more coins. The inclusion of three coins appears in the middle of the 3rd century and sporadically continues until the end of the middle of the 4th century. This is similar to the deposition of four coins, which begins in the first half of the 2nd century and intermittently occurs until the middle of the 4th century.

Burials containing five or more coins

The inclusion of more than five coins in a single burial is rare; only 4 out of 421 (0.9%). The graph shows that this is not likely linked to the date of the burial as two occur in the 1st century AD and two in the 4th century. Therefore, these will be

considered individually to investigate why more coins were included in these examples.

Burial 4 from Brindisi in southern Italy has been dated to the c. AD 300-400 and contained six coins; these were all copper alloy coins, four were illegible, one was of Arcadius (LRBC 1875) and another of Theodosius II (LRBC 818). No other grave goods were included (app. 3: 1.1). Interestingly, the coins are found in the fill of the burial, suggesting that they have been thrown in by mourners. This could account the higher number of coins, with each being a gift from different individuals. The function of coins in the fill is discussed in more detail in section 3.3.5.

Burial 32 from Sub Ascia in northern Italy has been dated to c. AD 37-41 and contained eight coins. Five of these were *asses* of Caligula (two RIC 48, two RIC 58 and one RIC 43 or 50), two *asses* of Tiberius (RIC 45 and 83) and an unidentified copper alloy coin, thought to be of Tiberius. The other grave goods included a bronze mirror, glass vessel, a fragment of a lamp, Samian vessels and a patera, a lamp, a bone pin and other ceramic vessels (app. 3: 9.16). It is difficult to determine why more coins are included in this burial. The possibility that they are given by the mourners is a possibility but they were all found within the lamp. It is possible that each has a different symbolic value but there is no evidence to suggest what this would be.

Burial 9 from Sub Ascia is proving to be an interesting burial as it does not conform to the general trends which have been observed so far in this PhD. This burial dates to c. AD 14-37 and contained ten coins: five *asses* of Tiberius (RIC 45, two RIC 80, RIC 53/54/65 and RIC 83); two *sestertii* of Tiberius (RIC 48 and RIC 56/61/68) and three *quinarii*, two Republican and one of Augustus (RIC 1a). As discussed above the grave goods suggest as wealthier occupant (app. 3: 9.5). It is possible that multiple coins have been included as a reflection of the wealth of the deceased. All but one of the coins were found within the cinerary urn, the other was in the fill. It could be argued that the coin in the fill was thrown in by mourners and therefore has a different meaning to the other coins. The grouping of the coins in the urn suggests the possibility that they were provision for the afterlife.

The final example is Burial 16 from Quadrella in Isernia, dated to c. AD 350-400 and contained 12 coins. These comprised three *nummi* of Constans II, an unidentified copper alloy coin of Magnentius, an unidentified copper alloy coin of Jovian, an unidentified copper alloy coin of Theodosius I and six unidentified and illegible copper alloy coins. The other grave goods include ceramic vessels, three bracelets and some beads, a lamp and four iron nails (app. 3: 2.4). The other grave goods do not suggest a wealthy burial so it is unlikely the multiple coins are a reflection of status. Two of the coins are pierced but which ones are unclear, which may link them to the beads, although they were found at the feet with the other coins. The location does not aid interpretation although the coins are all collected in a single location suggesting their inclusion as provision for the afterlife.

Conclusion

In conclusion, deposition of a single coin is most common and can be observed throughout the period of analysis, across the region. The inclusion of between two and four coins are less frequent, although occur sporadically from the 1st century to the middle of the 4th century AD.

Burials containing between five and 12 coins are rare (only 4 total) and individual analysis has shown little correlation between the examples. Two of these burials date to the 1st century and the others to the 4th century AD. Two of the burials are from the cemetery at Sub Ascia which could suggest a local tradition, although two examples do not make a pattern.

The function of multiple coins is difficult to determine. Although speculative, it could be suggested that the coins can have a different meaning; if one is intended as payment to Charon, the other could be included as provision for the afterlife or parting gifts from the living. This is considered in more detail in 3.3.5 where the position of the coins is discussed; are the coins in the same or different positions and can they be linked to different beliefs? Multiple coins do not appear to be linked to wealth and status of the deceased or their family and must be linked to the individual beliefs of the deceased or the people who buried the body.

4.4.5 Location of the coin in the burial

The position of the coin in the burial is often referenced when discussing its function and association to Charon. Where the coins are found around the head, they are interpreted as payment to Charon for transport across the River Styx to the afterlife. If the deposition of coins is in reference to a single and strict mythology, then little variation will be detected. However, if other locations are noted, alternative interpretation should be sought.

Figure 15: Copper alloy coin dislodged from the eye of burial F234 Vagnari, currently unidentified (app. 3: 12.10). Reproduced with permission from Prof. Alastair Small and Dr. Tracy Prowse

It is worth noting that not all the burials have the position recorded. The reasons for this are not always clear, but given the probability of post-depositional movement, for example the excavator or agricultural activity, the original position may not have been known. Burials with vague descriptions, such as 'between the covering and the base of the burial', have been omitted. This leaves 79 burials for consideration. The three burials that contain multiple coins, found at different locations on the body, will be discussed individually. It should be noted that, unlike previous investigations, the coins in cremations will not be ignored. Instead, the function of the coin in the cremations will be discussed at the end of this section.

Table 6 shows the number and percentage of burials with coins at each of the following locations: head/neck, chest, arms/hands, pelvis/waist, upper leg, lower leg/feet, in a vessel and in the fill:

Position in the burial	Number of burials	Percentage of burials
Head/neck	11	13.9
Chest	23	29.1
Arms/hands	8	10.1
Pelvis/waist	12	15.3
Upper leg	3	3.8
Lower leg/feet	14	17.7
In a vessel	3	3.8
Fill	5	6.3

Table 6: Table showing the number and percentage of burials with coins in each location (references: app. 3)

The table shows that the position of the coin can vary greatly. The highest number, c. 29.1%, were found on the chest, indicating that they might have been originally placed on the mouth or eyes and have fallen into this position. Those on the chest could also have been part of a jewellery item; this is discussed in relation to the pierced coins in 3.3.6. Also common are the coins deposited at the feet of the deceased (17.7%) and those on the pelvis/waist (15.3%). The location of the coin in the fill of the burial is interesting as at 6.3%, they cannot be considered accidental loss during the filling of the burial. Instead, this work will argue that they have been thrown in by mourners during the infilling of the grave.

To minimise the problems with interpreting the original position of the coin, the above categories can be grouped into the following: head/neck/chest, waist/upper leg, hands and feet. The placement of the coin in the hand as opposed to around the arm is an important consideration, as it could represent a more direct payment to Charon. As mentioned above, coins on the chest or around the upper body could have fallen from the mouth or the eyes.

Table 7 shows the revised percentages.

Position in the burial	Number of burials	Percentage of burials
Head/neck/chest	34	43.0
Waist/upper leg/pelvis	19	24.0
Hands	4	5.0
Lower leg/feet	14	17.8
In a vessel	3	3.8
In the fill	5	6.4

Table 7: Table showing the revised percentages for the location of the coins in the burial (references: app. 3)

Table 7 arguably presents a more accurate analysis of the original location of the coins. It confirms that the highest number of burials had the coin deposited on or around the head.

More important, however, are the majority of the coins (c. 52%) that are found in a location other than the head or the hand. 24% of these are found at the waist, suggesting that they were in a pocket or purse at the time of deposition. It is possible that these are also payment to Charon, but they could also be given as provision for the afterlife.

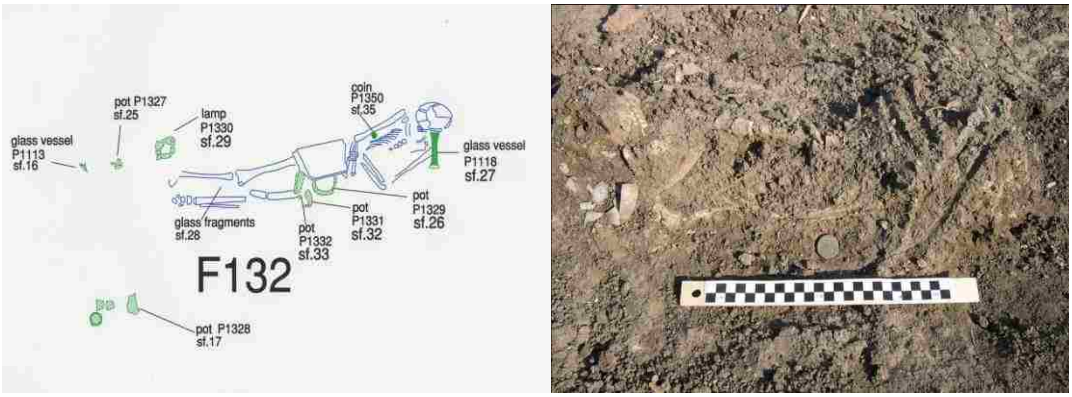

Figure 16: Burial F132 from Vagnari with the coin at the waist (app. 3: 12.3). It was an *as* of Marcus Aurelius (RIC 1670). Reproduced with permission from Prof. Alastair Small and Dr. Tracy prowse

Another interestingly high percentage of coins are the 18% that are found around the feet. It should be noted that c. 50% of those placed at the feet come from the cemetery at Isernia, suggesting a local tradition for the deposition of coins at this location. Other possible local traditions include Brindisi, where all but one of the

coins is located at the head or the chest. In cases like this, one may be tempted to argue for a local tradition. These should be considered carefully as the change in location may not imply a change in belief. It may just be common to place the coins at these locations whether they are payment to Charon or not.

Inhumations containing multiple coins deposited in more than one location

Three inhumations in the database contain more than one coin, found in more than one location. These will be examined to identify whether the different locations imply a different meaning for the coin.

Burial 28 from Quadrella in Isernia contained two coins; an *as* of Sabina found at the feet and an unidentified copper alloy coin on the tile covering of the grave (app. 3: 2.8). It is possible that the coin placed in the grave is payment to Charon, since the coin is in direct association with the body of the deceased. The coin on the covering will have been left by a mourner, therefore interpretation is more difficult. It could be a way that a mourner could sacrifice something which belongs to them in memory of the deceased or it could offer protection for the afterlife.

Burial 103 from Quadrella in Isernia also contained a coin on the outside of the grave covering as well as a coin in one of the vessels placed in the grave. The coin on the covering was an *as* of Octavian and the other an *as* of Alexander Severus (app. 3: 2.18). Interestingly, this is the second instance of a coin on the tile covering from this cemetery. This suggests that the coin is left either during or shortly after the funerary meal (see figure 16). Interpretation is difficult as the placement of the coin here is the decision of those involved in the burial process.

The final example is Burial 162 from Portorecanti in Macerata, which also has one coin inside the grave and another outside the burial, one was an *as* of Nerva and the other an *as* of Trajan (app. 3: 4.44). Again, one of the coins can plausibly be payment to Charon but the location of the other suggests a different interpretation.

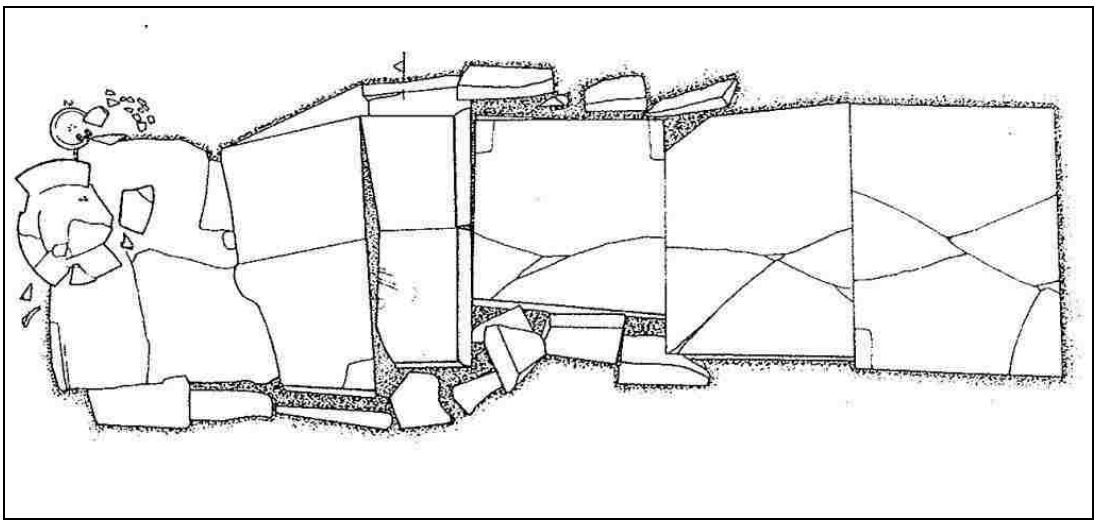

Figure 17: Burial 113 from Isernia (app. 3: 2.21) showing goods on the surface of the covering (After Terzani 1997, 202)

Each of these examples follow a similar pattern, two coins have been deposited, one within the burial and another outside. It is possible that the coin inside the burial is intended as payment to Charon but the same interpretation cannot be applied to the coin above the grave covering as it is not in direct association with the body. The importance of mourners is often overlooked in the interpretation for the deposition of coins, yet this is clear evidence for their taking part in the burial ritual. As the motivation for the inclusion of the coin is very personal, it is probable that a definitive explanation for their presence will never be found. Nevertheless, some possibilities should be presented, even if they are speculative. The coin could provide protection for the deceased in the afterlife or a way for the mourner to sacrifice a personal belonging in memory of or out of respect for the deceased.

Changes in the location of the coin over time

Changes in the location of the coin over time are also considered. Can a pattern in the location of the coin be identified, which would indicate an evolution in belief? 73 burials have been included in this study as six of the graves have not been dated. It should also be noted that the midpoint of the date range of the burial has been used to create the graph so possible inaccuracies should be considered.

Figure 18 shows the location of the coin in each of the time periods. The category 'BC' refers to the early imperial period:

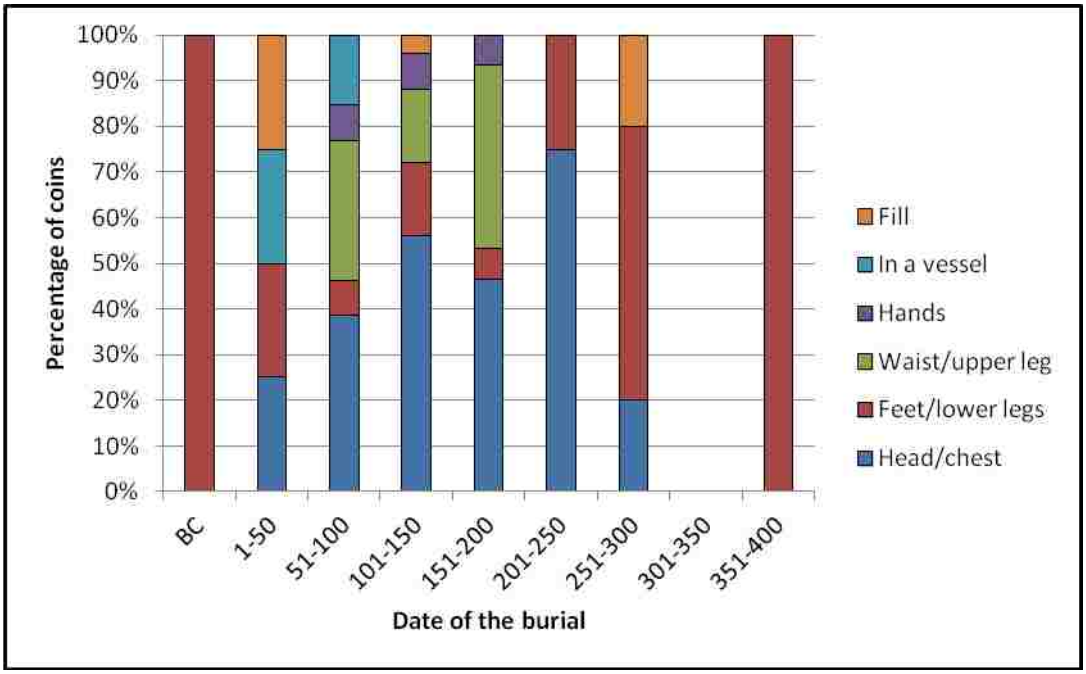

Figure 18: Graph showing the percentage of each location used in each time period (references: app. 3)

Little pattern can be identified in the graph and unfortunately, within the period 301-350 we have no dated burials that have the location recorded. It does indicate that coins are deposited at the head/chest from the first half of the 1st century up to the end of the 3rd century AD. The over-representation of the use of the feet in the early imperial period is not as significant as the graph suggests as only one burial is included in this category. The same is also true for the period AD 351-400. The presence of coins at the waist/upper legs is observed between the end of the 1st and the end of the 2nd century, the only time that it appears. If this is indicative of an overall trend, this short but dominant period is interesting to note. The same can be said of the use of the hands which also only appears in this time period.

Location of the coins in cremations

Interpretation of the function of the coin in cremations is more difficult as information is much more limited. The location of the coins is not always clear in the excavation reports, whether it be in a vessel, in the grave pit or on the vessel, nor is

the location of the cremated remains. Therefore, the association between the coins and the deceased cannot be determined. Nevertheless, the information in the cremations should not be ignored.

72 cremations in the database have information on the location of the coin. Table 8 shows the location of the coins in the cremations:

Location of the coin	Number of burials	Percentage of burials
Within a vessel	9	12.5%
In the grave pit	61	84.7%
On the vessel	2	2.8%

Table 8: Table showing the location of the coin in cremations (references: app. 3)

The table shows that the majority of the coins are deposited in the grave pit (84.7%). Unfortunately, the location of the cremated remains has not been recorded, so it is impossible to determine if they are in association with the deceased. Interesting are the two burials from S. Donato in Urbino which are described as at the neck of the vessel (app. 3: 16.5, 16.6). It is possible that the coin was being used as a stopper, perhaps of the cinerary urn (although this cannot be confirmed), for collection by the deceased on their way to the afterlife.

Three cremations contain multiple coins found in different locations. Burial 9 from Sub Ascia contained ten coins: one *as* of Tiberius was found outside of the urn and 4 *asses* of Tiberius, two *sestertii* of Tiberius, two Republican *quinarii* and a *quinarius* of Augustus were found inside an urn (app. 3: 9.5).

Burial 10 from Sub Ascia contained two *as* of Tiberius, one found within the burial and the other on the outside (app. 3: 9.6). This burial follows the same patterns as the previous burials, where one coin can be interpreted as payment to Charon and the other perhaps provision or protection for the afterlife.

The final example is Burial 123 from Gubbio in Perugia. This burial also contained two coins, an unidentified *as* inside the burial and an *as* of Domitian or Trajan outside the burial, presumably in the fill (app. 3: 10.20). Once again, the same pattern

is observed and it is likely that the coin inside the burial is payment to Charon and that outside has a different meaning.

As with the inhumations, it is possible that the coins have a different meaning; those inside the urn as provision for the afterlife and the one outside as payment for the journey there. Although this is speculative and almost impossible to confirm, the possibility should not be discounted.

Conclusion

Closer examination of the find position of coins in graves has shown that they are deposited in a wide variety of locations. As expected, a large number were found around the head and chest (c. 43%), presumably in observance of the Charon custom; although this should not be assumed and the individual burials considered. Those in the hand can also be interpreted as payment to Charon (c. 5%), since it is a direct method of transfer. However, the majority of coins are not found around the head or hands (62%), implying that they may perform a different function.

A high percentage of coins are found around the waist (24%), suggesting that they may have been in a pocket or purse. The coins could have been placed in the purse for safekeeping and still intended for Charon, but it is just as possible that they are provision for the afterlife. This can also be argued for large collections of coins at the feet of the deceased, such as the 12 coins in burial 126 from Quadrella (app. 3: 2.4), and those found in vessels. They could be viewed as a collection by the mourner or the wider community out of respect for the deceased. This argument is perhaps more valid where more than one coin has been deposited, but the possibility that a single coin may be representative of more should not be ignored.

Five inhumations have coins which have been found in the fill (6.4%), this rises to eight when including the burials with coins in more than one location, and ten if the cremations are included. These are far too frequent to be the result of accidental loss and are likely to be evidence for the participation of the mourners in the burial process. The disassociation between the coin and the body of the deceased implies the coin has a different meaning. Interpretation is speculative. They could be

included for the benefit of the deceased, intended to provide protection for the afterlife or the journey there. The importance of the practice to the living should not be undervalued; the throwing of coins in burials could be a method by which mourners could feel part of the burial ritual and it may have offered some comfort.

Burials containing more than one coin, placed are different locations in the burial, are rare. There does appear to be the trend however of placing one coin inside the burial and another outside the burial. The coins outside the burial are found in the fill and on the surface of the grave covering. It is not always clear but in some burials, such as Burial 103 from Isernia, have the coin on the tile covering as well as evidence for the funerary meal. It can be argued that the coin inside the burial is payment to Charon, as it is in direct association with the deceased, and the other has a different meaning.

Investigation into the changes in location of the coin over time showed little pattern. The head and chest is used throughout the period of analysis, which suggests no significant shift in belief occurred. Instead, the location of the coin is dictated by those taking part in the funeral.

4.4.6 Pierced coins and coin condition

The Italian database contains very few pierced examples; only seven out of 521 coins (1.3%). It is probable that these coins no longer possessed a monetary value and have been included in the burial for an aesthetic or symbolic reason. Surprisingly, piercing is not always noted in the excavation report; therefore, the photographs and drawings (where they are not schematic) have also been consulted. Each of the burials containing pierced coins will be discussed separately to identify any commonalities which could be used to explain the function of the coin. The details of the burials and the coins are summarised in table 9.

Burial	Sex/ age	Burial date	Details of the pierced coin	Grave goods	Reference
Quadrella, Isernia (8)	Infant	AD 350-400	1. Illegible antoninianus 2. Illegible antoninianus 3. Copper alloy coin of Valentinian dynasty (364-378)	Ceramic fragments	app. 3: 2.3
Angera Romana, Milan (I-27/1)	-	-	1. Unidentified copper alloy coin	5 large nails, nail fragments	app. 3: 7.15
Sub Ascia, Modena (7/11)	-	AD 14-37	1. Unidentified copper alloy as	2 bronze brooches, bronze ring, bronze pendant, iron nails, lamp, fragment of patera, fragments of coppetta (some in Samian, 4 decorated beads, 2 other beads and other ceramic fragments	app. 3: 9.29
Gubbio, Perugia (183)	Infant	AD 101-200	1. Denarius of L. Cupiennius (147BC): RRC 218/1	Lamp, an olletta and a fragment of bronze ring	app. 3: 10.30
Gubbio, Perugia (220)	Newborn	-	1. Illegible Republican denarius	Thin sheet of bronze, amphora and a hobnail	app. 3: 10.32

Table 9: Table giving details of the burials containing pierced coins

The pierced coins are an important consideration as it is unlikely the coin has been deposited as payment to Charon. The pierced coins are not confined to a single cemetery with examples from Quadrella, Angera Romana, Sub Ascia and Gubbio, suggesting that the deposition of pierced coins is confined to a single area. The burials also date throughout the period of analysis, the earliest being burial 7/11 from Sub Ascia dating to c. AD 14-37 and the latest burial 8 from Quadrella dating to c. AD 350-400. It is difficult to determine how the burial from Sub Ascia has been dated to this period, since it contains no coins of Claudius, but this is the date given in the excavation report and must be trusted to be accurate.

Interestingly, three of the pierced coins were found in infant burials. Unfortunately, the age and sex of the deceased in the other burials is unknown. This hints at a possible trend, especially if the pattern is also observed in the case study areas. As discussed above, the piercing of the coin changes the function; they have been transformed into pendants and are likely to be included as part of a jewellery piece or perhaps for symbolic reasons.

The possibility that they were included as an item of jewellery is evidenced by burial 7/11 from Sub Ascia in Modena. This burial also contained decorated beads, suggesting that they could be part of the same necklace or bracelet. In addition, the coin has been worn smooth so it is unknown whether it was a coin pendant or whether it was used as a copper alloy disc. It is not possible to determine if the jewellery belonged to the infant, but it is unlikely. Instead, I suggest that the coin belonged to a close member of the family, perhaps the mother, who has given it to the child upon death. In such examples, the coin could change from being an aesthetically pleasing jewellery item to a more symbolic function. They could offer protection to the child or encourage resurrection, as well as offering comfort to the individual depositing the coin. None of the other burials contain evidence that the coin was part of a larger jewellery piece and must have been single pendants.

Nina Crummy has argued that coins in infant burials are specifically chosen based on the reverse type, with the image promoting protection and resurrection (Crummy 2010). Such a study is potentially very useful, although a more detailed study of

reverse types issued in that year and how frequently they occur in this region would need to be taken into account. This is why the reverse types have not been studied in detail in this work. Nevertheless, given that the majority of the pierced coins occur in infant burials, the reverse types will be considered.

Since the coins are corroded, the details on the reverse are limited. Two of the burials have coins with traces of the reverse image. Burial 183 from Gubbio in Perugia contained a Republican *denarius*; this features the *Dioscuri* on horseback. According to Crummy's study, she interprets martial figures as representing masculine protection (Crummy 2010, 60). These are some of the most dominant figures and are interpreted as offering the child safe passage to and existence in the afterlife.

Unfortunately, the coins from burial 8 from Quadrella cannot be securely attributed to this burial as they come from a disturbed deposit. The excavation report records that the coins were between two tombs but are likely to have originally come from this grave (Terzani 1997, 67). Based on this assessment, the coins are considered as belonging to this burial. The reverse types of the coins are illegible, although a female standing figure can be observed on one of the *antoniniani* and traces of Victory can be seen on the copper alloy coin. Depending on the goddess, the image of the goddess could offer protection for the child and Victory represents resurrection (Crummy 2010, 60-62).

All of the coins discussed above are pierced close to the outer edge of the coins, the only exception being the copper alloy coin from burial I-27/1 at Angera Romana (app. 3: 7.15). The coin is very corroded so the coin has not been identified and is completely illegible. It is therefore difficult to determine why the coin would have been pierced here. The location of the piercing suggests that the coin was not pierced because of the reverse image of the coin, as the hole would have destroyed this.

Coin condition

An analysis of the condition of the coin is also considered in this sub-section. However, as this requires information on the wear of the coin prior to its deposition in the burial, it is extremely difficult. Unfortunately the Italy database does not

contain enough information on the condition of the coin to complete an effective study. It should be noted that 34 coins are descried as 'worn', although most descriptions refer to the state of preservation as opposed to the original condition of the coin.

Only one coin in the database is described as burnt. Cremation 145 from S. Maria in Campis contained two illegible *asses*, one of which is described as burnt (app. 3: 11.33). This implies that one of the coins was a pyre offering as opposed to a grave good. It is unclear why a distinction would be made, although it is possible that it was the belief that one of the coins had to be in connection with the body in order to be used by the deceased on their journey.

The lack of information on the condition of the coin, prior to deposition, makes interpretation difficult. 34 coins are described as worn, suggesting they were in general circulation before being used in the burial, but this accounts for only 6.5% of the total number of coins in the database. Sections 3.3.1 and 3.3.2 imply that the majority of the coins have not been specifically chosen and this seems to confirm that assessment.

4.4.7 Associated grave goods

The associated grave goods have also been investigated to assess whether they can aid the interpretation of the function of the coin.

Perhaps a starting point should be those burials containing coins of precious metal, whether silver *denarii* and *quinarii* or *antoniniani*. The reasoning for this could be that if these coins were used as an indication of wealth and status, we would expect this to be reflected in the other grave goods. As discussed in 3.3.3, seven burials in the database contain silver coins; two from Sub Ascia, three from Gubbio, one from S. Maria in Campis and one from Adria. Four burials contain *antoniniani*; one from Quadrella, one from Portorecanti and two from S. Maria in Campis. To deal first with the silver coins, burial 9.5 appears to be quite a rich burial. It contained a bronze mirror and a gold ring as well as a Samian cup and other fragments of ceramic and glass vessels. There are ten coins in this burial total but not all of them are silver.

This seems to suggest that if this indeed is the burial of a wealthier member of society, the coins are not a reflection of status. Burial 9.12 also contains a larger number of grave goods. None of these are of any precious metal but there is a Samian cup, iron, ceramic and glass fragments. It should be noted in this cemetery that there is a tendency towards placing a large number of grave goods, which may not be a reflection of wealth but instead a local tradition towards this practice. Burial 10.3 only contains ceramic vessels, a bowl and a vessel with a lid. This does not imply a high status occupant. This pattern is also seen in burial 10.32; very few objects including iron, ceramic and fragmented glass vessels, although there is a bronze object in this grave. Despite this, it does not seem to be a wealthy occupant. 10.34 continues this trend with the presence of a lamp, the edge of a ceramic plate and a fragment of iron.

In the case of this cemetery, it is possible that the burials contain individuals of less importance, but equally possible is the fact that it could be local tradition to include fewer goods in the grave. Burial 11.11 contained a lamp, some balsamarium fragments and other ceramics, again not suggesting excessive wealth. Burial 17.3 is slightly different in that it contains an amber necklace with a bone pendant, in addition to the ceramic vessels. Again there are not a large number of goods, although the necklace could be considered as belonging to a wealthier member of society.

Where the *antoniniani* are concerned there are significantly fewer grave goods. 2.3 contains ceramic fragments, as does 11.34, which contains amphora and other ceramic vessel fragments. Burial 4.66 contains no other goods; the only possible exception to this is 11.4,1 which contains two bronze bracelets, a pearl and two vases. Although fewer goods, it can be argued that these belong in the grave of a wealthier Roman.

Another method of investigation is to concentrate on those burials which contain precious metal objects. If there are gold and silver goods within the burials with copper alloy coins, it can be argued that the metal type of the coin offered does not affect its meaning; especially if other burials can be argued as those of a higher level

of society. Within the database there are five burials which contain gold objects. In general, these are not multiple. For example, 1.12, 3.2 and 15.5 contain gold earrings but the rest of the objects are of a similar nature to the others in the database comprising ceramic and glass objects. Burials 15.1 and 15.15 both contain small gold rings.

As these burials containing gold objects are a rarity in the database (1.2%), it can be inferred that they belong to wealthier members of society. In addition, a further three burials contain silver objects; 3.6, 9.1 and 9.25 contain silver finger-rings. Burial 9.25 is especially noteworthy as it contains two silver rings a bronze brooch and a Samian vessel. Again, it seems likely that these are burials of higher levels of society.

In conclusion, it appears that coins are included in burials of every level in society. Those with silver coins do not seem to have a bearing on the wealth and status of the occupant. There are exceptions to this, such as burial 9 from Sub Ascia (app. 3: 9.5), which contains ten coins, as well as a gold ring and Samian vessels but, in general, the grave goods are of comparable nature to the rest of the cemetery. Those burials with a larger number of goods do not necessarily contain a wealthier occupant, since there is such a difference between cemeteries. It looks like there may be some cemeteries where it is more common to place more objects.

In addition, there are burials containing gold earrings, where this is the only object. There are burials that contain precious metals and yet also include copper alloy coins. Overall, it looks like every level in society is taking part in the tradition of placing coins in the burial, and the type of coin placed appears to have no bearing on the wealth and status of the occupant or their family; it is the observation of the custom that is important.

4.5 Conclusion

In conclusion, a number of interesting patterns have arisen from the study of the Italian evidence. Important to note are the early examples. In Italy evidence exists for the deposition of a form of currency from the 8th century BC with the offerings of *aes*

rude, a trend which continues into the 3rd century BC. These are very few in number. Contemporary with the placement of *aes rude* from the 4th century BC is the use of colonial Greek and Sicilian coins, as well as local Etruscan examples. Interestingly, other ritual offerings of currency, such as at springs, is also detected early in Italy. For example, the spring at Vicarello near Rome, also contained *aes grave*, and has been argued as dating as early as the 4th century BC (Panvini Rosati 1967/68, 62-65; Sauer 2011, 510).

It is also important to note that the introduction of coinage does not immediately replace the use of the bronze ingots in burials, but instead they are used together, for example at Tarquinia. The earliest uses of the *aes rude* tend to be limited to warrior males but this evolves in the 7th century to include women.

In this period it appears to be the wealthier members of society observing the custom. Little correlation can be made between the sex and age of the deceased, and the observance of the tradition, with the exception of the 8th century BC examples. No pattern can be identified in the number of *aes rude* or coins placed in the burial; most common is between one and four although there are individuals buried with significantly more, for example 88 in tomb 107 from Narce.

Given the relative wealth of the other grave goods, it is possible that it was a display of wealth and status by the family of the deceased, although it is impossible to link the offering of *aes* to any particular deity or mythological belief. With the increase of trade with places like Greece in this period, it could be argued that the idea of the practice came from the east.

A number of analyses were undertaken as part of the examination of the role of coins in imperial roman burial ritual, which showed patterns in the data. A study of the chronology of the burials containing coins, showed a steady increase in the practice, reaching a peak in the mid-2nd century AD before rapidly decreasing. It is possible that this reflects a change in practice, but is this something confined to Italy?

A comparison between the coin and burial date showed that in 86% of cases, the coin had been placed in the grave within 10 years of its mint. This strongly suggests that the coin was taken from general circulation and was not specifically chosen. There are exceptions to this, with 2.9% of the burials postdating the coinage by between 100 and 200 years. A number of these are silver *denarii*, which is to be expected, but the pierced examples and very early copper alloy examples can be argued to have been deliberately retained.

Copper alloy dominates throughout the period of analysis (97%), but silver is much less common. As they are Republican in date, it is not surprising that they are limited to 1st century. With the introduction of *antoniniani* at the beginning of the 3rd century AD, it is no surprise that they appear in burials, although are few in number. Looking at the other grave goods, all levels of society are represented, suggesting that it is the observance of the custom that is important, not the metal type of the coin and its connection to wealth and status.

The number of coins placed in the burial also does not have a correlation to wealth. Like the *aes rude*, anything between one and four is to be expected with the odd example that contain up to 10. It is possible in the cases of multiple offerings, if one coin is connected to Charon, then the others are provision for the afterlife.

The location is also important in the interpretation of Charon's *obol*. Most often cited are those around the head. In the database 43% are found around the head and these can quite legitimately be linked to Charon. However, the fact that coins occur at other locations are used should also be investigated; it is possible they were included as provision for the afterlife, or in the case of the pierced examples, for their aesthetic or even symbolic properties.

Local traditions for position of the coin, for example the feet at Isernia, can also be observed. One of the more interesting positions is the coin in the fill. In the past, they have been attributed to accidental loss, but with the number that we get in the fill (6.4%) and the presence of plates and other funerary meal deposits on the surface of the grave covering, the role of mourners throwing the coin into the fill should be

considered. Very little correlation could be found between the position of the coin and the date of the burial; the most convincing is the location at the waist which appears to be limited to between the second half of the first century and the beginning of the third. As mentioned, the act of piercing a coin changes its function. In the database, pierced coins are a rarity at only 1.3%. These examples cannot be linked to Charon but instead their likely use as personal or protective ornamentation (perhaps in the case of infant burials with pierced examples) should be taken into account.

Since analysis of the burials located in the south of the country did not produce different patterns of coin deposition to the rest of the Italy, it must be assumed that the patterns identified are representative of the whole country. This assessment requires testing, when more published cemeteries become available for this area of Italy. Similarly, the site of Turris Libisonis in Sassari (app. 3: 14) does not occur as an irregularity, suggesting a similar practice in this area.

Considering the above information, one could argue that the use of coins in the Roman period is the culmination of the original placement of *aes rude*, combined with the tradition transferred to Italy from Greece through trade and colonialism. It was in the Roman period that the tradition became more widespread, both socially and geographically, within Italy.

Figure 19: Location map for the cemeteries used in Chapter 5. The reference number corresponds to the first number of the ID in appendix 4 and table 10.

5.1 Introduction

Germany has been included in this thesis to investigate the movement of the custom through to the north-west of Europe.

The structure of this chapter will be similar to that of Italy. It will begin by introducing the dataset used in the analysis of the Roman custom (section 5.4), indicating how the cemeteries were selected, the level and quality of the data, the problems encountered during data collection, and how these factors might affect the results. The aim is to provide the reader with a clear understanding of the dataset and potential biases. This will be followed by a comparison of the total number of burials per cemetery to those containing coins, aiming to investigating the general popularity of the custom and any geographical patterns.

Section 5.3 will give an overview of evidence for coin deposition in burials in pre-Roman Germany. As explained in chapter 3 (Italy), this is not intended to be a detailed examination of all examples, but it is included to illustrate that this custom exists before Roman contact, and to examine if and how the custom changes under Roman rule.

The analysis and interpretation of the Roman custom is presented in section 5.4. Investigation will follow the methodology outlined in chapter 1, section 1.2. The main aim for this chapter is to analyse the coin in its burial context as thoroughly as possible, in order to identify any patterns in coin deposition that can be compared to other areas within the Empire (see chapter 8).

5.2 The dataset

This section concentrates solely on the Germany dataset; discussion of the geographical coverage, selection of the case study areas and problems associated with the data analysis can be found in chapter 1, parts 1.2.3-1.2.5.

The cemeteries considered in this analysis were randomly selected from throughout the province of Germania. The reasons for this were to gain a representative sample of cemeteries from throughout the study region and to avoid concentrating on cemeteries with a large number of burials containing coins, since they might create false patterns in the data. An attempt was made to try to include cemeteries from both rural and urban sites.

It quickly became clear during data collection that cremation was the dominant funeral rite in this area until the late imperial period. This meant a change in approach, to actively seek the inclusion of later cemeterie in the dataset, in order to analyse the location of the coin in the burial. The possibility that this has caused an over representation of later burials in the chronological analysis of the burials (section 7.3) must be considered.

The problems caused by the inclusion in the dataset of the very large cemetery of Wederath-Belginum (app. 4: 3) must be considered. This site has been included because it is very well published and can be used to investigate local traditions and adaptations of the custom. This cemetery, however, contains c. 400 burials with coins, dominating the Germania dataset. Since the burials for this cemetery date throughout the 1st century AD, a likely problem is the over-representation of burials dating to this period in the chronological analysis in section 5.4.1. To minimise this problem, the chronological analysis will be undertaken twice, once including the data from Wederath-Belginum, and again omitting this cemetery. The results will be used to clarify whether inclusion of this cemetery has created a bias in the analysis, and also how Wederath-Belginum fits into the wider patterns identified in coin deposition. Where the use of this cemetery might influence other aspects of the analysis, it is noted in the text.

Another potential bias could be the inclusion of smaller sites, i.e. those which contain fewer than 10 burials overall; seven (35%) of the cemeteries in the database fit into this category (see no.s 5, 6, 8, 12, 14 and 15 in table 10 below and on fig. 19). In these examples, the percentage of burials containing coins can be significantly higher. For example, the sites of Altenerding, Eining and Brühl (no's 8, 9 and 10)

show that 100% of the burials contain coins, although the total number of burials are only 3, 2 and 2 respectively. This needs to be taken into consideration when analysing the frequency of the custom.

Criticising the quality of the data presented in the excavation reports is difficult for this region, with each publication giving a full catalogue and discussion of the remains. One notable absence however, is a description of the age and sex of the deceased. Like Italy, this is not always recorded, or known at the time of publication, making the investigation of age and sex of the grave occupant in connection with coin deposition very difficult. Where the age and sex of the deceased is available, it is noted and analysed in the text. In addition, the vessel used to contain the cremated remains is not always clear. This has limited the analysis of the location of the coin in cremation burials.

Where the Germania reports excel is in the discussion of the coin condition, noting the degree of wear and corrosion, as well as whether or not the coin was burnt. This information is rarely recorded in Italy and Britain but is important when examining coins as pyre offerings. The instances of burnt coins are described in section 5.4.6.

Data collection resulted in the gathering of information from 20 cemeteries, totalling 627 burials, containing 887 coins (table 10; figure 19).

Percentage and location of burials containing coins

As discussed in chapter 4 (Italy), section 4.1, the collation of data for those cemeteries without coins, as well as those with coin offerings, was not possible in the scope of this work. In order to give an indication of the frequency of this custom, the total number of burials from each cemetery was recorded and compared to the number of burials containing coins. This information can be found in table 10.

Table 10 gives a summary of the cemeteries included in the dataset. As with chapter 4 (Italy), it includes the total number of burials, the total number containing coins, the percentage containing coins and the site type. The ID reference number correlates with the sites on the map in fig. 19 and the database in appendix 4 (where the

references can be found). The term ‘urban’ is used to describe those cemeteries which are located within or on the fringes of Roman settlements.

ID Reference	Site	No of burials total	No with coins	%	Site type
1	Schwabmünchen, Augsburg	251	13	5.1	Rural
2	Losnich, Kreis Bernkastel Wittlich	22	2	9	Urban
3	Wederath-Belginum, Bernkastel-Wittlich	2474	423	17	Urban
4	Keckwiese, Kempten *(Camdodunum)*	416	65	15.6	Urban
5	Heimstetten, Kirchheim bei München	3	1	33	Urban
6	Frolichstrasse, Augsburg	2	1	50	Urban
7	Goggingen, Augsburg	27	1	3.7	Rural
8	Altenerding, Erding	1	1	100	Rural
9	Eining, Kelheim	1	1	100	Rural
10	Burgheim, Neuburg ad Donau	130	2	1.5	Urban
11	Weissling, Starnberd	22	1	4.5	Rural
12	Künzing, Vilshofen	8	1	12.5	Rural

13	Neuburgh-Schrobenhausen, Neuburg an der Donau	130	3	2.3	Urban
14	Köln, North Rhine-Westphalia *(Colonia Claudia Ara Agrippinensium*)	7	3	42	Urban
15	Brühl, Rhein-Erft-Kreis	2	2	100	Urban
16	Hürth-Hermülheim, Rhein-Erft-Kreis	50	11	22	Urban
17	Rheingönheim, Rheinland-Pfalz	407	10	2.4	Urban
18	Altlussheim-Hubwald, Rhein-Neckar-Kreis	146	19	13	Rural
19	Kapellenösch, Rottweil *(Arae Flaviae)*	711	61	8.6	Urban
20	Viktorstrasse, Xanten	27	5	18.5	Urban

Table 10: Table summarising the cemeteries considered in this chapter (also see appendix 4)

The information in table 10 can be used to give an indiction of the frequency of coin deposition in burials in this region. Like chapter 4 (Italy), the number of burials containing coins varies, between 1.5 and 100%. Notable perhaps is the slightly lower uptake of the custom in this region when compared to Italy, an average of c. 25% of the total number of burials contains coins, although this may be linked to my random selection of burials rather than indicating a lower popularity in practice. Many more cemeteries would need to be analysed to confirm this observation, but it warrants further work. As with the previous region, the higher percentages tend to be associated with the cemeteries containing a lower number of total burials, e.g. Brühl (no. 15), where both of the excavated graves contain coins.

It was established in chapter 3 that interpretation of these observations as evidence for variation in religious belief is problematic; but what is certain is that in this region too, not everyone is observing the custom.

No pattern can be identified within the dataset in regards to the location of the site; burials with a significantly higher or lower percentage of coins are not confined to a single region. It could be tentatively suggested that the cemeteries around the Danube have a lower overall number of burials containing coins. However, the higher number of sites in this area could account for this observation, with over 50% of the cemeteries in the dataset located in this area.

In addition, like Italy, no link can be found between coin deposition and site type, with coins appearing in both rural and urban contexts. The dominance of the custom at urban sites might be significant, but this could simply be the result of the type of sites excavated and published. Moreover, it could be linked to the method by which I have classified urban sites. The lack of military sites might be important, as this is also seen in Italy, and warrants further study.

On the basis of the current data, a selective uptake in the custom can be identified that does not appear to be connected to geography or site type. This can be interpreted as evidence for variation in afterlife belief, although the possibility that

coin deposition is a personal choice of the mourners must be considered. The function of the coin is discussed more thoroughly in chapter 8, section 8.10.

5.3 Pre-Roman coins in burials

The early examples are designed to investigate whether the placement of coins in burials was brought to the region by Roman contact, or whether it was a pre-existing custom. Unfortunately, it is not possible within the scope of this work to look at every early example; this would detract from the Roman analysis and double the length of this study, but it is necessary to mention their existence. In 1982, Hartmut Polenz undertook a study of coins in burials between 300 and 50BC in the area of Central Europe, including Germany (Polenz 1982). His work, and more specifically his catalogue, will form the basis for this sub-section. The following will give a brief overview, with examples, for the pre-Roman deposition of coins in burials.

Within Polenz's database there are 13 burials from Germany with coin offerings. These range in date from the beginning of the 3rd century BC, up to the end of the Republic in the middle of the 1st century BC. Geographically, the sites of Weißenthurm, Wederath, Trier-Euren, Uffhofen, Nierstein, Osthofen and Marienborn, are all clustered to the west bank of the Rhine. Dühren, Giengen and Neckarsulm are located to east of the Rhine. The site of Dobian is much further east, situated in the modern area of Thüringen.

Table 11 gives the details of the pre-conquest burials in Germany, arranged chronologically:

Area	Burial date	Coin (s)	Other grave goods	Reference
Dobian (Inhumation)	275-250 BC	2 gold staters	Ceramic vessel, half of a straight-sword, closed bronze ring, vessel in which the coins were placed	Polenz 1982, 57-58
Giengen (Cremation)	250/235-210/195 BC	Gold stater	Iron chain, an iron brooch, iron nails, an armring, a bronze necklace, bronze armrings and a bronze brooch	Polenz 1982, 65-69
Osthofen (Cremation)	185/170-120/105 BC	Gold stater	Small bronze dog figure, 2 bronze brooches, remains of 3 iron brooches, hollow metal rings, iron nails, iron knife and ceramic objects	Polenz 1982, 81-84
Trier-Euren (Cremation)	185/170-120/105 BC	Gold quarter stater	Ceramic objects	Polenz 1982, 86
Dühren (Inhumation)	185/170-120/105 BC	Silver quinar	2 silver brooches, fragments of 4 bronze brooches, iron brooch, gold finger-ring, spiral finger-ring, 5 armrings, 5 pearl beads, bronze fragments, bronze mirror, bronze chain, bronze vessel and ceramic vessels	Polenz 1982, 58-65
Marienborn (Cremation)	185/170-120/105 BC	Copper alloy potin coin	Fragment of a large iron brooch and an armring fragment	Polenz 1982, 76-77
Neckarsulm (Inhumation)	160/145-120/105 BC	Silver quinar	Remains of an iron sword, bronze spiral finger-ring, bronze bead and ceramic fragments/ vessels	Polenz 1982, 77
Nierstein (Cremation)	120/105-80/65 BC	Gold stater	Fragment of a bronze brooch, bronze brooch, armring, remains of some beads, ceramic rings, ceramic spindle whorls and ceramic vessels	Polenz 1982, 78-81
Uffhofen (Cremation)	120/105-80/65 BC	Copper alloy potin coin	Remains of 5 bronze brooches, bronze brooch, bronze armring, remains of 15 rings of various sizes, beads, glass fragments and a goblet	Polenz 1982, 87-89
Wederath (Cremation)	120/105-80/65 BC	Copper alloy mediomatrikern	Fragment of iron brooch, bronze brooch fragment, bronze ring, 2 smaller bronze rings, remains of some beads and ceramic vessels	Polenz 1982, 91-92
Wederath (Cremation)	120/105-80/65 BC	Copper alloy potin coin	Fragmented bronze brooch, fragmented bronze pin (for a brooch), 2 small bronze rings, 2 beads, wooden ball, ceramic vessels	Polenz 1982, 94-96
Wederath (Cremation)	Unknown	Silver coin	None	Polenz 1982, 91
Weißenthurm (Cremation)	Unknown	Schüsselmünze	Remains of ceramic vessels and a glass bead	Polenz 1982, 96-98

Table 11: Details of the Pre-Roman burials containing coins

Table 11 shows the inclusion of gold, silver and copper alloy coins in pre-conquest burials in Germany. Most frequent are the gold and silver coins, which may indicate a connection between the custom and elite status. However, the date of the burials might be a more significant consideration as there appears to be a shift towards using copper alloy in the 1st century BC. As will be demonstrated in section 4.3.3, this pattern is not observed in the imperial period, where gold is absent and silver is uncommon. The rarity of the practice also suggests that the deposition of coins in burials may be limited to a single level in society.

The other grave goods support this hypothesis. With the exception of the final example from Wederath, the burials contain similar grave goods; including gold, silver and bronze jewellery, brooches, knives and weaponry and ceramic vessels (see Table 1). This suggests that they are all of similar social status, even those with copper alloy coinage.

With the earlier examples in Italy, it was possible to observe an evolution of this custom from the male warrior class to including both sexes from the upper class. Unfortunately, this is not possible with the pre-conquest burials from Germany. Ten of the burials were cremations but the age and sex of the deceased has not been recorded. The burials from Dobian and Giengen contained multiple individuals including both sexes. In these cases the coins cannot be attributed to particular burials. The burial from Wederath containing the Mediomatrikern coin contained the remains of a female. This evidence implies the practice is not based on the sex of the deceased, although it cannot be confirmed

Using the other grave goods, it is possible to interpret the sex of the remaining examples. Several of the burials, for example those from Dühren, Neckarsulm and Uffhoffen, all contain beads or other items of jewellery, which could tentatively suggest this was a female grave. Burial 2 from Nierstein contained a ceramic spindle whorl in addition to the beads, which tend to be attributed to female burial. These observations, however, cannot be confirmed.

To conclude, evidence exists for the placement of coins in burials before Roman contact. The practice is not widespread, suggesting that it might be limited to a single level in society. 38.5% of the coins are gold, 23% are silver and 38.5% are copper alloy. The use of precious metal coins suggests the deceased may be higher status. The other grave goods support this theory, with the inclusion of gold and silver jewellery items, as well as bronze and ceramic vessels. Little correlation can be made between the sex of the deceased and the practice with coins found in both male and female burials.

Overall, the practice is a rarity in pre-conquest Germany and it is not until the Roman imperial period that it became widespread.

5.4 Coins in Roman burials

The main focus of this chapter is the cemeteries from the period of Roman occupation in the area of modern Germany.

5.4.1 Chronological distribution of burials containing coins

Investigation into the chronological distribution of burials containing coins is used to identify if there is any period where coin deposition is more popular. Is there a sudden uptake of the custom or is it more gradual? Is there a period in which this practice drops off, or even stops entirely, and is it possible to ascertain why? The date of the burial is used, as there can often be a gap between the minting of the coin and its deposition in the burial. As the burials are dated within long time periods, the midpoint has been used.

Using this data, two analyses have been undertaken. The first divides the burials into 100-year date ranges. The aim of this is to minimise the problems with identifying the correct date of the burial, making it more likely that they are considered within the correct time period. The second analysis divides the burials into 50-year date ranges, as although it is possible that some may be in the wrong date range, it gives a more detailed picture of the distribution patterns. Within the Germany database, information is provided for the date of 552 burials.

100-year date ranges

Figure 20 shows the percentage of burials containing coins within the 100-year date ranges. It should be noted that BC refers to the early imperial examples and does not include the pre-Roman burials:

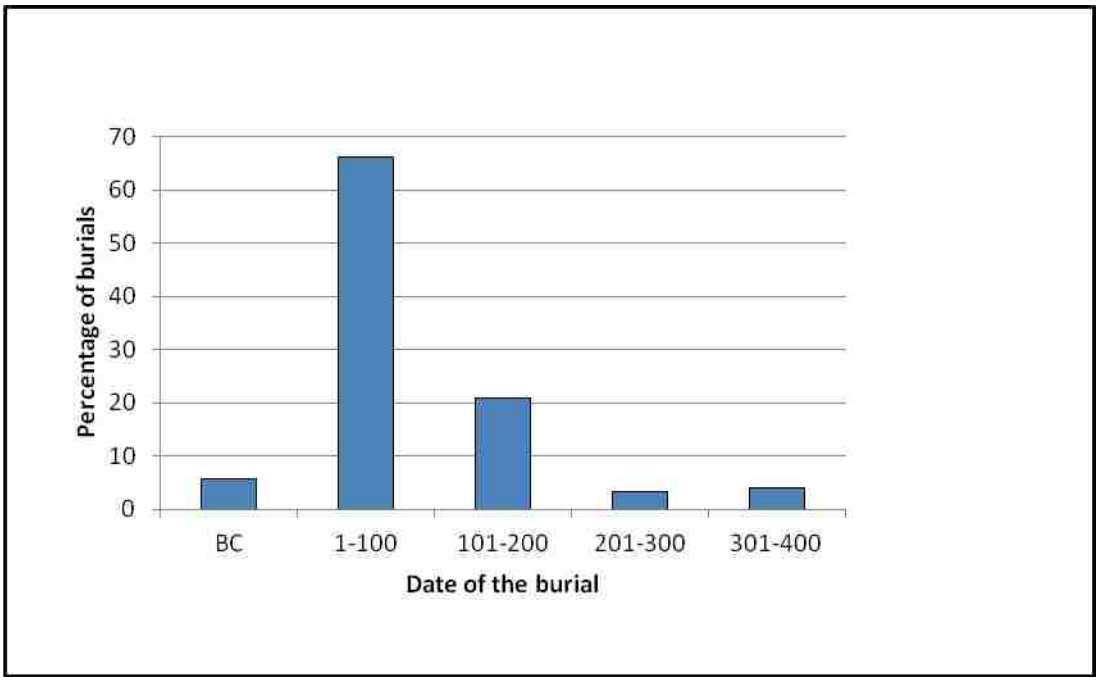

Figure 20: Graph showing the burials divided by date into 100-year periods (references: app. 4)

The graph shows that the custom does exist in the early imperial period, but that it is a relatively low percentage (5.8%). It appears to increase rapidly in the 1st century AD to c. 66%; it is also in this period that the custom peaks. In the 2nd century there is a notable drop in the practice. It continues at a significantly reduced rate in the 3rd century (3.3%) and there is a slight increase in the fourth (4.0%).

50-year date ranges

The second analysis further subdivides the data into 50-year time periods, aiming to look more closely at the date when the coins were placed in burials. This will also

help to ascertain if the patterns observed in figure 1 are as significant as the graph implies.

Figure 21 shows the percentage of burials containing coins divided into the 50-year date ranges. The term 'BC' refers to the early imperial period and does not include the pre-Roman burials:

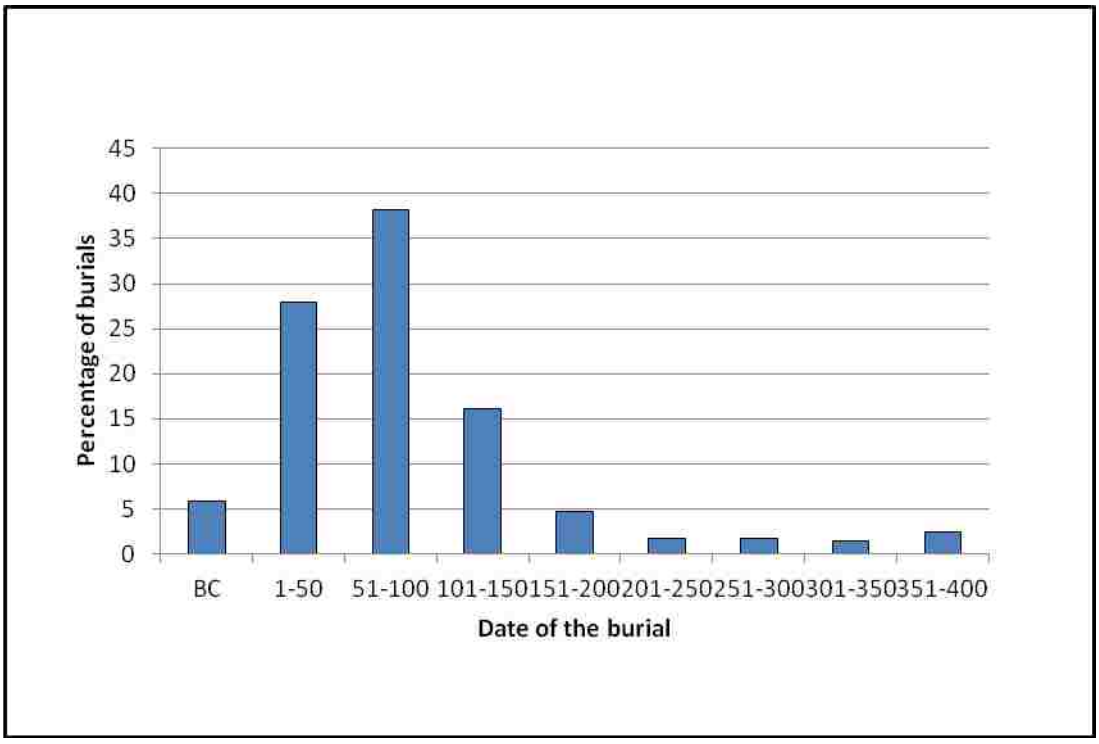

Figure 21: Graph showing the burials divided by date into 50-year periods (references: app. 4)

This graph follows the same trend as figure 1, but the increase to the peak in the second half of the 1st century AD is much more gradual. The decrease in the custom is also steadier, to 16.1% in the first half of the 2nd century and 4.7% in the second half. It confirms that the practice continued at a significantly reduced rate in the 3rd century and first half of the 4th century, with a slight increase in the second half of the 4th century. It possible that this increase in percentage is the result of including more inhumations for the study of location of coins in burials in section 5.4.5.

50-year date ranges with Wederath-Belginum omitted

In order to observe whether the inclusion of a large number of burials from the site of Wederath-Belginum has an effect on the patterns observed, the analysis of burials in the 50-year date ranges was repeated, omitting the burials from Wederath-Belginum.

Figure 22 shows the chronological distribution of burials containing coins, with Wederath-Belginum omitted. The term 'BC' is used to describe the date of the early imperial burials and does not include the pre-Roman examples discussed in section 4.2:

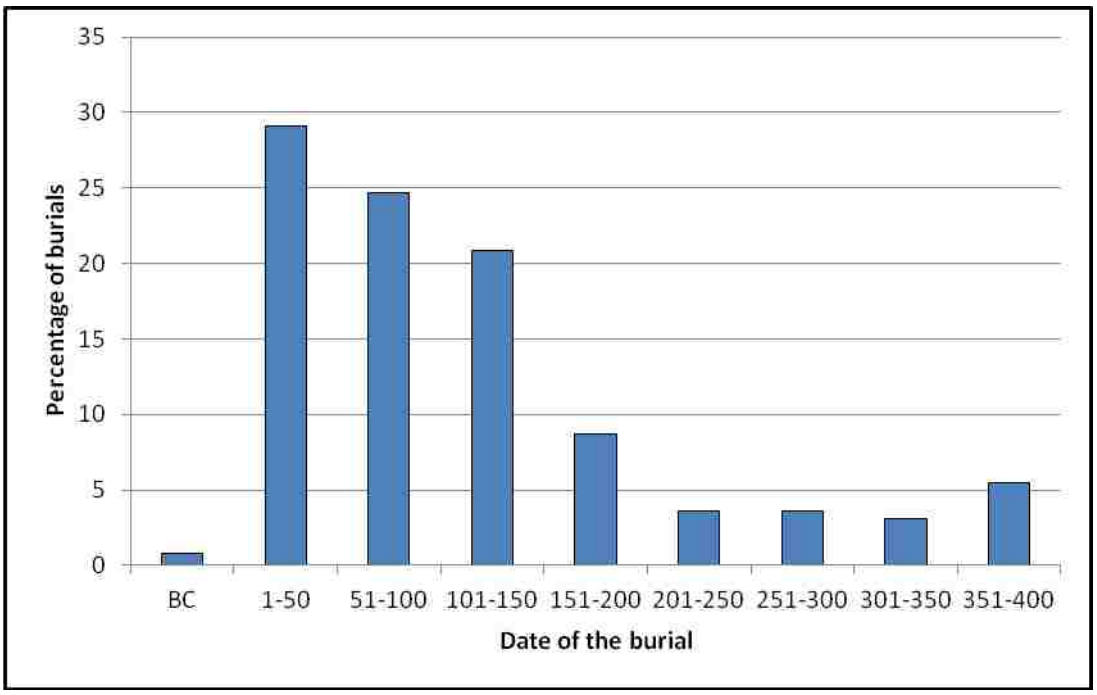

Figure 22: Graph showing the chronological distribution of burials containing coins, with Wederath-Belginum omitted (references: app. 4)

The graph shows the same overall pattern, with a rapid increase in the practice between the early imperial period and the first half of the 1st century AD, and a decrease in the second half of the 2nd century AD. This confirms that the patterns observed above are roughly accurate; with the conclusions that the custom is most popular when first introduced and there is a change in practice in the 2nd century AD, remaining true. However, there are noticeable differences.

Far fewer burials date to the early imperial period, only 0.8% (2 burials). In addition, the increase in uptake is much more rapid, from 0.8% to 29.1% by the end of the second half of the 1st century AD. This means that the peak in the custom is earlier than observed in the first investigation. The decrease in the practice is much more gradual; from 29.1% in the period AD 1-50, to 24.7% in the period AD 51-100, to 20.9% in the period AD 101-150. It is in the second half of the 2nd century that the most notable decrease is identified, from 20.9% to 8.7%. This is around half a century later than the drop observed in the investigation above. This graph confirms that the practice remains low, but constant, up to the end of the period of analysis.

Overall, it has been extremely beneficial to investigate the accuracy of the above patterns by omitting Wederath-Belginum. It shows that although similar patterns are observed, bias was created by the inclusion of this cemetery. By removing Wederath-Belginum, the peak in the custom appears to be earlier, in the first half of the 1st century AD, and the significant decrease is around half a century later in the period AD 151-200. It could be argued, perhaps that this analysis is more representative of the overall patterns in Germany. This is something which requires further study and is discussed as part of future work (see chapter 9, section 9.4).

Conclusion

Overall, the first two analyses complement each other. They show a gradual uptake of the custom in the early imperial period in the last years BC. This rise continues until it peaks in the second half of the 1st century; this peak is much more gradual when considering the burials in 50-year periods. The drop in the custom is notable in the first half of the 2nd century and the custom clearly continues until the end of the 4th century. The early peak could be explained by increased direct Roman influence in Germany at this time, as well as the increased availability of Roman coinage.

The slight increase in the 4th century is unlikely to be linked to a resurgence of the practice, and is instead the result of an attempt to include inhumations in the dataset. As explained in Chapter 1, cremations dominate in Germany until the late Imperial period; therefore, it was necessary to include later burials in data collection. This problem was not encountered in Italy. However, despite this methodology, there is

still a definite drop in the observation of the custom in the 3rd and 4th centuries AD confirming the drop as legitimate.

Repeating the analysis, removing the burials from Wederath-Belginum, shows that the same overall patterns can be observed; there is still a rapid increase in the practice between the early imperial period and the first half of the 1st century AD, and a drop in the custom in the 2nd century AD. However, differences have been detected. The peak in the practice is earlier, in the period AD 1-50, and the drop is later in the period AD 101-150. It can be argued that this graph is perhaps more representative of the overall patterns in the cemeteries studied. If this is the case, it shows that that observation of the custom remains high for a longer period of time, before a change in practice can be observed.

5.4.2 Comparison of coin date to the date of the burial

The comparison of the coin to the burial date has been included to investigate specific coin choice. This is assuming that if a coin has been in circulation for a long period of time, it is possible that it was deliberately retained for use in the burial.

As most of the coins and burials are dated to ranges, as opposed to a single year, the latest date of the coin and the earliest date of the burial are used to determine the number of years in circulation. This is intended to establish the shortest possible period of circulation. Where there are multiple coins in a burial, the information on the earliest datable coin has been used. Within the Germany database there are 536 dated burials, which also have the date of the coin recorded.

Figure 23 shows the circulation period for the coins deposited in burials:

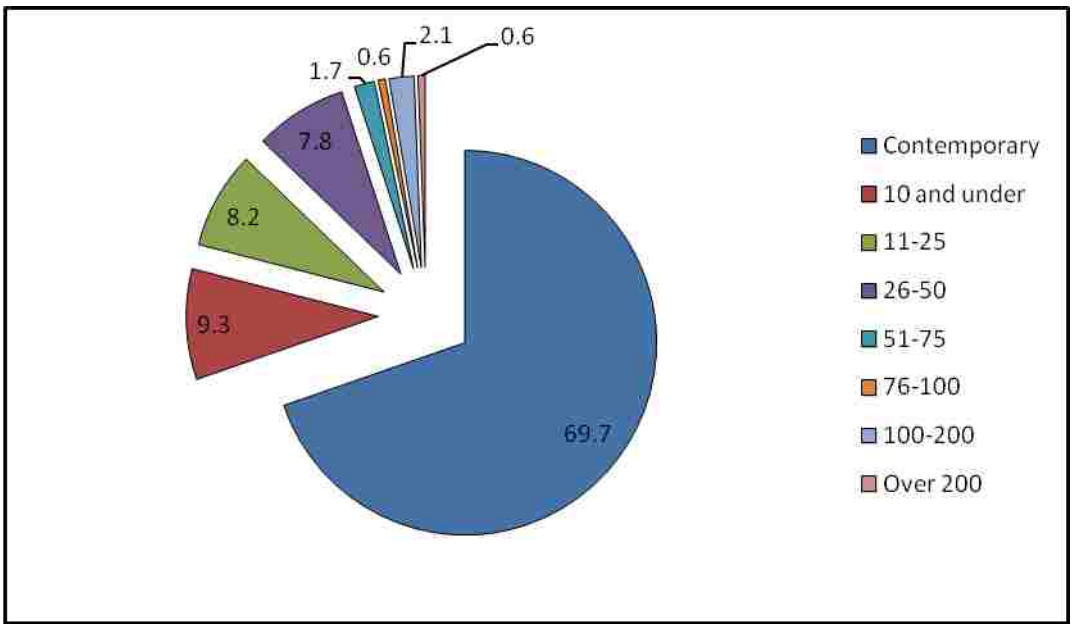

Figure 23: Chart showing the circulation period of the coins before being placed in the burial (references: app. 4)

The result of the analysis shows that, in general, the coins are contemporary with the burial (c. 70%). This suggests that they have been taken from general circulation, and there appears to be no evidence to argue that the coin was specifically chosen based on its mint date. Since the typical circulation period for a Roman coin cannot be determined, all coins which predate the burial by up to 100 years are not considered unusual. This raises the percentage of coins which were potentially still in circulation to 97.3%. However, this means that c. 3% of the burials contain significantly older coins. It is these that will be considered in more detail.

Within the database, 13 burials contain coins which had been in circulation more than 100 years before being deposited in the burial. Table 12 gives the details of these burials, and the earliest coin they contain.

Burial	Sex/age	Burial date	Mint date of coin	Pierced (Y/N)	Denomination	No. of years	Grave goods	Reference
Keckwiese, Kempten (217?)	Female (adult)	AD 25-37	155-189 BC	N	As Republican	114	Fragmented knife, 6 nails, lamp, ceramic bowl, a jug and other ceramic vessels	app. 4: 4.36
Keckwiese, Kempten (217)	-	AD 25-37	155-189 BC	N	As Republican	114	A second coin, fragmented brooch, mirror, 10 nails, Samian plate, bowl and other ceramic objects	app. 4: 4.37
Victorstrasse 21, Xanten (11)	Male (30-50)	AD 200-300	AD 79	N	As Vespasian (RIC 729)	121	Ceramic jug, razor, tweezers, scissors and an iron nail	app. 5: 20.1
Keckwiese, Kempten (268)	-	AD 41-54	155-189 BC	N	As Republican	130	Two other coins, ring, nail, 9 beads, lamp, ceramic vessels and other fragments	app. 4: 4.41
Victorstrasse 21, Xanten (12)	Female (40-60)	AD 250-325	AD 114-117	N	Sestertius Trajan (RIC 663)	133	Razor, silver finger-ring with a gem, iron nail, aryballos, beaker, gaming piece and other ceramic vessels	app. 4: 20.2
Brühl, Rhein-Erft-Kreis (2)	-	AD 275-299	AD 117-138	N	As or dupondius Hadrian	137	Glass vessel, glass drinking horn	app. 4: 15.2
Keckwiese, Kempten (390)	Female (adult)	AD 69-79	85-84 BC	N	Denarius Republican	153	Fragmented mirror, balsamarium, lamp, ceramic vessels, burnt ceramic remains	app. 4: 4.60
Wederath-Belginum (1502)	-	AD 54+	101 BC	N	Denarius M. Herrenius	155	Bronze brooches, knife, 5 bronze rings, 2 fused fragments of bronze, bronze key and fragments of iron nails	app. 4: 3.243
Keckwiese, Kempten (263)	Adult	AD 350-399?	AD 197-198	N	Denarius Septimus Severus (RIC 120c)	158	None	app. 4: 4.40
Wederath-Belginum (2315)	-	AD 78+	106-105 BC	N	Denarius Republican	183	Beaker, glass beaker, bronze ladle, 4 strigils, 2 fragments of sewing needle and fragments of ceramic vessels (including Samian)	app. 4: 3.402
Keckwiese, Kempten (324)	Female (adult)	AD 333-370?	AD 73-75	N	Sestertius Vespasian (for Domitian) (RIC 709 Typ?)	258	Samian vessel, ceramic plate, other ceramic vessels	app. 4: 4.48
Keckwiese Kempten (334)	Male (adult)	AD 330-339	AD 22-37	N	As Tiberius (Divus Augustus) (RIC 95, 96)	308	None	app. 4: 4.51
Keckwiese, Kempten (331)	Adult	AD 333-399	AD 10-14	N	As Augustus (RIC 368/370, reverse?)	319	Iron nails, bead, 6 fragments of glass, 5 fragments of blue/green glass, lamp, 9 Samian vessels, 10 Samian plates, 8 Samian bowls, fragments of Samian vessels, other ceramic vessels including plates, bowls and jugs	app. 4: 4.50

Table 12: Table giving details of burials containing coins which predate the burial by over 100 years

Overall, the table shows that the coins were in circulation for between at least 114 and 319 years before being deposited in the grave. Eight of the burials come from the cemetery at Keckwiese in Kempten; this could indicate a local tradition for the deposition of early coins. It suggests that the mint date of the coin may have been a consideration when choosing which would be deposited. An analysis of the date of the coins from all sites in the area would be required to confirm this. Little pattern can be identified in the remaining examples. Two come from the cemetery at Victorstrasse in Xanten, two from Wederath-Belginum and one from Brühl. This suggests that, with the exception of the examples from Keckwiese, these irregularities are not confined to a single region.

Little correlation can be identified between the age and sex of the deceased. Eight of the burials contained the remains of adults, four of these were female, two were male and two were unknown. As with the evidence from Italy, this suggests no link between the sex of the deceased and these irregularities.

The burials also date throughout the period of analysis. The earliest from Keckwiese is burial 217, which dated to c. AD 25-37 (app. 3: 4.37) and the latest is burial 263 which dated to c. AD 350-399 (app. 3: 4.40). From the remaining cemeteries, the earliest is burial 1502 from Wederath-Belginum dating to c. AD 54 (app. 3: 3.243) and the latest is burial 12 from Victorstrasse, dating to c. AD 250-325 (app. 3: 20.2). This implies that the inclusion of early coins is not confined to a single period and confirms that although there are a larger number from Keckwiese, they follow the same general patterns.

Six of the burials contain Republican coins; three contain Republican *denarii* and three contain Republican *asses*. The *denarii* have been in circulation at least 155-183 years before being deposited in the burial. The long circulation period of Republican silver coinage has been discussed in the previous chapter, but it is worth reiterating that it is entirely possible that these coins were taken from general circulation to be placed in the burial. The use of Republican copper alloy coins is more unusual. These have shorter circulation periods compared to the *denarii*, of at least 114-130 years. The possibility that these have been taken from general circulation should be

considered since no evidence exists to suggest that they were specifically chosen. None of these coins are pierced so the longevity of the coin cannot be attributed to it being worn and passed down through a family.

The imperial examples are predominantly copper alloy, comprising both *asses* and *sestertii*, although one of the burials contained a *denarius* of Septimus Severus. Calculation of the shortest possible circulation period for these coins gave a range of circulation of between 121 and 319 years. Burials 331 and 334 from Keckwiese in Kempten contain coins which have been in circulation for over 300 years before being deposited in the burial. This is a rarity and not something which is seen in the other case study areas. Both burials date to between c. AD 330 and 399 and contain coins dating to the first half of the 1st century AD. As the average lifespan of a copper alloy coin is unknown, it is impossible to say with certainty that these have been specifically chosen, it is possible that they were still in general circulation, although it is unlikely.

Conclusion

Overall, like the other geographical areas, the majority of the coins are contemporary with the burial (c. 70%). This strongly suggests that the coins were taken from general circulation. Considering the circulation period of a coin in the Roman period can be quite long, coins which predate the burial by up to 100 years are not considered unusual. However, this leaves c. 3%, or 14 burials, where the coin could be considered as in circulation for an unusually long period of time. In most cases, these are Republican *denarii*. The longevity of the silver coinage should be considered, and as most of these dates to c. 150 years after minting, they are perhaps not as unusual as first thought.

Looking more closely at the examples that date to more than c. 150 years before inclusion in the burial, the copper alloy examples are significant. The fact that a large number of burials containing coins with a long circulation period come from the cemetery at Keckwiese should be noted. It could indicate a local tradition in the mid-4th century to deposit early copper alloy coins with the deceased. An explanation for

this is difficult as this practice is the personal choice of the deceased or his/her family but it is interesting that none of these examples are pierced.

5.4.3 Metal type of the coin

Two main analyses were undertaken using the information on the metal type of the coin. The first looked overall at the data to identify the most frequently used coin and the second looked at the evidence chronologically to examine whether the metal type changes over time. As with the previous chapter, the data was divided into copper alloy, silver and billon.

628 burials within the database had the metal type of the coin recorded. 617 contained a single coin or multiple coins with the same metal type and 11 contained multiple coins with different metal types. Those burials containing more than one metal type will be considered separately at the end of this section.

Table 13 shows the numbers of burials and the metal type of the coins in the burials:

Metal type	Number of coins	Percentage
Copper alloy	599	98.3
Silver	9	1.5
Billon	1	0.2

Table 13: Table showing the distribution of burials containing each of the metal types (references: app. 4)

The analysis shows the dominance of copper alloy in the database at 97%. Silver is much less frequent at 1.5% and the billon at 0.2%. The lack of gold examples is notable, especially when considering the Iron Age burials (see section 4.2) and the areas outside imperial boundaries (see chapter 7). It is a pattern which is paralleled in other coin offerings, such as at springs and other watery places. For example, 97.9% of coins at the spring in Roisdorf in Bonn are base metal (Hagen 1959, 465-470).

If one subdivides the copper alloy coins into their respective denominations, a preference for low denominations can be identified. Out of the 774 coins which have the denomination described, c. 77.6% (601) of them are *asses*. Of the remaining, c.

10.7% are *dupondii*, c. 5.7% are *sestertii*, c. 3% are *follis*, c. 1.2% are *semisses* and 1.6% are either *asses or dupondii*.

Although the dominance of copper alloy coins is reflective of the database, the under-representation of the silver and the *antoniniani* can be partially explained. Ten of the 11 burials with multiple coins or more than one metal type contain a silver coin and three of these contain *antoniniani*. To address this misrepresentation, it is also necessary to consider the number of coins in the database of each metal type, as the previous study does not consider the burials that have multiple coins.

Overall, the database contained metal type information on 876 coins, 831 (94.9%) are copper alloy, 20 (2.3%) are silver and 25 (2.8%) are *antoniniani*. This does not make a significant difference to analysis, the overall patterns remain the same, but it is more representative of the metal type in the database.

Burials containing silver coins

As there are significantly fewer silver coins in the database, the burials will be summarised below to investigate why they may have been deposited as opposed to the more common base metal coins. Nine of the burials in the database contain only silver coins. Four of these burials are from Keckwiese (app. 4, 4.35, 4.40, 4.60 and 4.64), one from Wederath-Belginum (app. 4, 3.74), one from Neuburg an der Donau (app. 4, 13.3), and three from Hürth-Hermülheim (app. 4, 16.8, 16.9 and 16.11).

Burial 390 from Keckwiese contained a Republican silver *denarius* (app. 4, 4.60). This is not usual, given the long circulation of the Republican *denarii*, and it is something which there is evidence for in the other geographical areas.

Unfortunately there is no information on the example from Burial 536 from Wederath-Belginum, so no further comment can be made.

More unusual in the overall dataset is the inclusion of the later silver examples, something which we do not have evidence for in the other geographical areas. This could be explained by the deliberate attempts to include later imperial examples, with

the need for inhumation burials with the coin location noted. Nevertheless, they cannot be ignored. As shown in the chronological analysis in 4.3.1, a drop in the practice in the late Imperial period is still observed, even with the inclusion of later examples. Two of the burials from Keckwiese contain later *denarii*; one of Septimus Severus dating to the 197/198AD (app. 4, 4.40) and the other is of Severus Alexander dating to 228/231AD (app. 4, 4.64).

The remaining four burials *siliquae*; 4th century silver coins (King 2007). Three of these come from the cemetery of Hürth-Hermülheim. The first coin (from Burial 26) dated to 367/375AD and was a *siliqua* of Valens (app. 4, 16.8). The second, from Burial 29, was a *siliqua* of Gratian dating to the 378/383AD (app. 4, 16.9). The third example was also of Valens, dating to 367/375AD (app. 4, 16.11). A problem is Burial 65 from Neuburg an der Donau (app. 4, 13.3). The excavation report records that this burial contained a *siliqua* of Caligula, but since *siliqua* were not minted until the 4th century, long after Caligul's death, this is certain to be wrong. For analysis, it seems likely that the coin was definitely silver but it has probably been classified wrongly. Unfortunately there were no photographs to clarify.

Changes in metal type over time – based on the date of the burial

A second analysis looked at how the metal type changed over time. For analysis, the burials with the inclusion of coin(s) of a single metal type were divided into the following date ranges: early imperial (BC), 1-50, 51-100, 101-150, 151-200, 201-250, 251-300, 301-350 and 351-400. To reiterate, there is a problem with placing the burial into the correct category since they are often dated to ranges. The mid-point of the date range is used to attempt to minimise this problem. Again, it should be noted that not all the burials have been dated. In some cases, the metal type of the coin is unknown, and these have obviously been excluded.

Figure 24 shows the metal type of the coins in the burials, divided by the date of the burial:

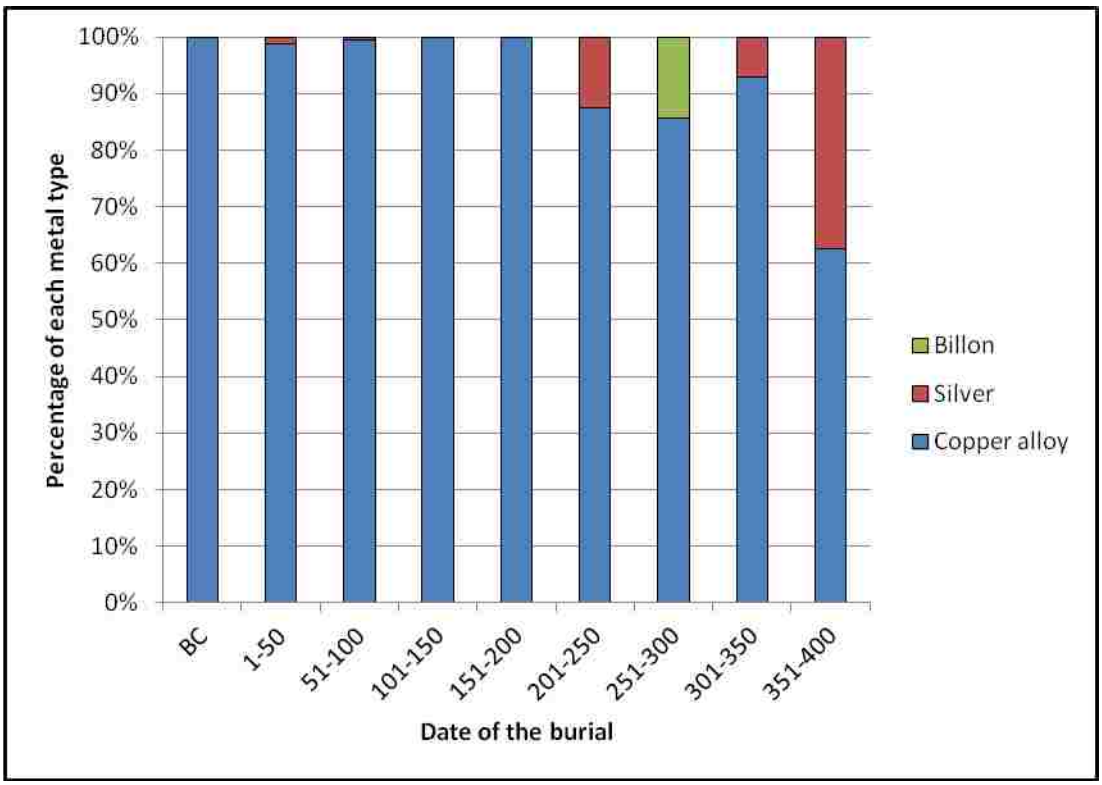

Figure 24: Graph showing the metal type used, divided by burial date (references: app. 4)

The graph shows the dominance of copper alloy in burials throughout the period of analysis. The presence of silver also appear in the 1st century, and from the beginning of the 3rd century to the end of the 4th century AD.

Unfortunately, there is only one burial with an *antoninianus*; therefore it is difficult to draw any definite conclusions. With their addition to the currency of the Roman Empire, it is inevitable that they will appear in the archaeological record. Perhaps it is unusual that they do not appear more frequently. Overall, it appears that there is little correlation between the date of the burial and the metal type used.

Changes in metal type over time – based on the date of the coin

The change in metal type over time, based on the date of the coin, was also investigated. How does the use of silver change? Can it be related to the period of devaluation of silver coinage? Did this cause a change in the practice? In the above chronological examination, burials with coins of different metal types had to be

excluded. This is a way of incorporating them and gives a more representative picture of the metal type of coins used.

Figure 25 shows the metal type of the coins found in the burial divided by the mint date of the coin:

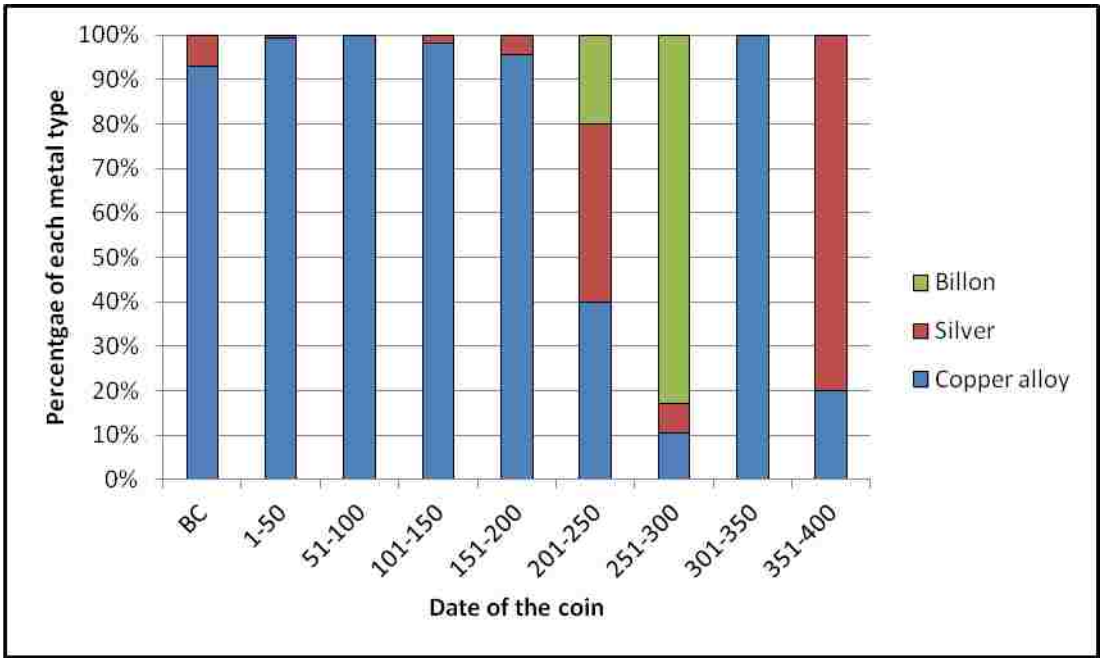

Figure 25: Graph showing the metal type, divided by mint date of the coin (references: app. 4)

The graph again shows the dominance of copper alloy, from the late Republic up to the middle of the 3rd century. This study also includes the coins from the mixed burials, so there will be an increase in the number of silver and *antoniniani*. Silver coins which date to the late Republic and the early Imperial period are present (app. 3.101, 3.243, 3.402, 4, 4.35 and 4.60). Four of these are Republican *denarii* and the other is a *quinarius* of Augustus. The deposition of early silver coins in the burials is not an unusual occurrence; this happens in each of the geographical areas studied. The use of silver is rare until the first half of the 3rd century AD, when the coins are a little more evenly distributed between the copper alloy, silver and *antoniniani.* It might be worth noting however, that we only have five coins dating to this period; one *antoninianus*, two silver and two copper alloy coins.

A similar argument can also be made for the period AD 351-400 when there appears to be a change in practice to include silver coins. Taking into consideration the real numbers, there is only one copper alloy and four silver coins dating to this period. These are far too few in number to draw significant conclusions. What can be observed is the measurable increase in the number of silver and *antoniniani* from the beginning of the 3rd century AD. This could be linked to the devaluation of silver coinage, perhaps it was not as much of a sacrifice in offering a silver coin in this period as in the early imperial period. The possibility that these are burials of wealthier individuals will be discussed in section 4.3.7 when looking at the other grave goods placed in the burial.

The most unusual of the trends is the dominance of the *antoniniani* in the period 251-300. Again, the real numbers must be considered. Although there are 24 *antoniniani* dating to this period, 21 of these come from a single burial.

Burials containing multiple coins of more than one metal type

11 burials in the Germany database contain multiple coins of more than one metal type. The details for these can be found in table 14:

Burial	Age/ Sex	Date of burial	Coin details	Location of the coin	Grave goods	Reference
Wederath-Belginum (670)	-	47 BC +	1. Republican denarius (47 BC) 2. Copper alloy Celtic coin 3. Copper alloy Celtic coin	In a vessel In a vessel In a vessel	3 beakers, small terrine, bronze brooch, small schussel, socketed axe, remains of 2 or 3 iron nails	app. 4: 3.101
Wederath-Belginum (1502)	-	AD 54+	1. Sestertius of Claudius I (41-54): RIC 98 or 114 2. As of Julio-Claudian period 3. Illegible as 4. Denarius of M. Herrenius	In a vessel In a vessel In a vessel In a vessel	Bronze brooches, knife, 5 bronze rings, 2 fused fragments of bronze, bronze key and fragments of iron nails	app. 4: 3.243
Wederath-Belginum (2267)	-	AD 87+	1. Illegible denarius 2. Dupondius of Domitian (87): RIC 350 3. As of Vespasian (71): RIC 486 4. Dupondius of Domitian (86): RIC 326a 5. As or Dupondius of Domitian (81): RIC 236 6. As of Domitian (85-86): RIC 301b	In a vessel In a vessel In a vessel In a vessel In a vessel In a vessel	Amphora, glass flask, 2 spiral brooches, nail fragments and sherds of glass vessels	app. 4: 3. 387
Wederath-Belginum (2277)	-	AD 70+	1. Sestertius of Vespasian (69-70): RIC 395 2. As of Nero (64-68): RIC 544 3. As of Nero (64-68): RIC 543 4. Dupondius of Nero (64-68): RIC 522 5. As of Nero (64-68): RIC 543 6. Dupondius of Nero (64-68): RIC 518 or 520 7. Illegible denarius	In the grave In the grave In the grave In the grave In the grave In the grave In the grave	Ceramic vessels including a jug and a flask, bronze lamp, spiral brooch, needle or part of a brooch, fragments of 4 nails	app. 4: 3.392
Wederath-Belginum (2315)	-	AD 78+	1. As of Vespasian for Titus (AD 77-78): RIC 789a 2. Republican denarius (106-105 BC)	West of grave West of grave	Beaker, glass beaker, bronze ladle, 4 strigils, 2 fragments of sewing needle and fragments of ceramic vessels (including Samian)	app. 4: 402
Wederath-Belginum (2370)	-	AD 78+	1. Denarius of Tiberius (14-37): RIC 30 2. Sestertius of Vespasian (71): RIC 413 3. Dupondius of Vespasian (71): RIC 475 4. As of Vespasian for Domitian (77-78): RIC 786	In a vessel In a vessel In a vessel In a vessel	Ceramic vessels including beakers and jugs, balsamarium, mirror, 3 bronze brooches, bronze kette, 3 fragmentary bronze rings, net-like textile remains, plant remains bronze vessel, bronze fragments, iron rings, charcoal	app. 4.406

Burial	Age/ Sex	Date of burial	Coin details	Location of the coin	Grave goods	Reference
Köln (2)	Female (20-29)	AD 250-325	1. Denarius of Severus Alexander (224): RIC 44 2. Antoninianus of Gordian III (241-243): RIC 93 3. Antoninianus of Gallienus (260-268): RIC 160 4. Antoninianus of Gallienus (260-268): RIC 178 5. Antoninianus of Gallienus (260-268): RIC 181 6. Antoninianus of Gallienus (260-268): RIC 230 7. Antoninianus of Gallienus (260-268): RIC 577 8. Antoninianus of Gallienus (260-268): RIC 585 9. Antoninianus of Gallienus (260-268): RIC 585 10. Denarius of Postumus (260-268): RIC 347 11. Antoninianus of Claudius II (268-270): RI 15C 12. Antoninianus of Claudius II (268-270): RIC 66 13. Antoninianus of Claudius II (268-270): RIC 98 14. Antoninianus of Claudius II (268-270): RIC 102 15. Antoninianus of Claudius II (268-270): RIC 104 16. Antoninianus of Claudius II (268-270): RIC 181 17. Antoninianus of Claudius II (268-270): RIC 252 18. Antoninianus of Divus Claudius II (270): RIC 261 19. Antoninianus of Divus Claudius II (270): RIC 266 20. Antoninianus of Divus Claudius II (270): RIC 29 21. Antoninianus of Tetricus I (270-274): RIC 126 22. Antoninianus of Tacitus (275-276): RIC 82 23. Antoninianus of Probus (276-282): RIC 187	In bag at R knee In bag at R knee	2 flasks, phial, beaker, glass plate, small iron knife, 10 pieces of miniature utensils, iron knife, several armlets, iron finger-ring, flask, glass flask, ceramic vessels including a Samian jug, a beaker, 4 hairpins	app. 4: 14.2
Brühl, Rhein-Erft Kreis (1)	-	AD 270-280	1. Copper alloy coin of Caracalla (198-217) 2. Antoninianus of Postumus (263) 3. Illegible copper alloy coin of Postumus (263) 4. Illegible silver coin of Postumus (266) 5. Antoninianus of Victorinus (270)	Lower left leg Lower left leg Lower left leg Lower left leg Lower left leg	several glass vessels, iron knife, iron knife with gold inlay, small bronze figures, other bronze fragments and objects	app. 4: 15.1
Brühl, Rhein-Erft-Kreis (2)	-	AD 275-299	1. As or dupondius of Hadrian (117-138) 2. Sestertius of Antoninus Pius for Faustina (152-156) 3. Nummus? of Maximus Herculius (290-291)	On right foot In right hand On lower jaw	Glass vessel, glass drinking horn	app. 4: 15.2
Hürth-Hermülheim (37)	Child (3-5)	AD 350-399	1. Siliqua of Constantius (340-361?) 2. Illegible nummus	Mouth In earth (not fill)	Beaker, glass vessel, flask, hobnails, iron objects and ceramic fragments	app. 4: 16.10
Kapellenösch, Rottweil (392)	Adult	AD 120-160	1. Denarius of Trajan (114-117): RIC 334 2. As of Vespasian for Trajan (69-117) 3. As of Trajan (103-117)	Unknown Unknown Unknown	Iron nails, hobnails, Samian plate, Samian bowl and two amphora	app. 4: 19.34

Table 14: Details of those burials containing multiple coins of more than one metal type

Six of the burials come from the cemetery at Wederath-Belginum, two are from Brühl, one from Köln, one from Hürth-Hermülheim and one from Kapellenösch. This suggests no connection between the deposition of multiple coins and a geographical location.

The burials also date throughout the period of analysis. The examples from Wederath-Belginum date from c. 47 BC to c. 87 AD; burial 392 from Kapellenösch has been dated to AD 120-160; burial 2 from Köln dates to c. AD 250-235; the two graves from Brühl have been dated to c. AD 270-299 and the latest example dates to c. AD 350-399. This shows there is no connection between the date of the burial and the deposition of more than one metal type. Therefore, the inclusion of more than one metal type is not an indication of a change in practice and belief at a particular period, in this area. It appears to be the choice of those involved in the burial process.

In general, each of the burials contained a single silver or billon coin in combination with between one and five copper alloy coins. It is possible that a different function has been assigned to the different coins, but to what extent this is based on the metal type is unclear. Burial 2 from Brühl could be considered evidence for this as the *antoninianus* was found in the mouth of the deceased, a *sestertius* in the right hand and an *as* on the right foot (app. 4: 15.2). A similar argument can also be made for burial 37 from Hürth-Hermülheim. The *siliqua* was found in the mouth of the deceased and a *follis* or *nummus* in the earth of the burial (app. 4: 16.10). Although these burials are compelling, given the supposition that coins in the mouth are intended as payment to Charon, care should be taken as two examples do not make a pattern.

The two exceptions to this observation are burial 1 from Brühl and burial 2 from Köln, both of which contain a higher number of coins. The former contained five coins total; two unidentified copper alloy coins, two *antoniniani* and an unidentified silver coin (app. 4: 15.1). The other grave goods included several glass vessels, iron knife, iron knife with gold inlay, small bronze figures, other bronze fragments and objects. These are wealthier than the other burials in the database, suggesting the

occupant could belong to a higher status in society. This means that the use of multiple precious metal coins might be linked to wealth and status.

A similar argument can be made for the burial 2 from Köln. Found within the grave, in a bag at the right knee, were two *denarii* and 21 *antoniniani* (app. 4: 14.2). The other grave goods included 2 flasks, phial, beaker, glass plate, small iron knife, 10 pieces of miniature utensils, iron knife, several armlets, iron finger-ring, flask, glass flask, ceramic vessels including a Samian jug, a beaker and 4 hairpins. These also suggest a wealthier grave occupant and the coins could have been intended as a show of wealth and status. Given the presence of the coins in a bag, it is possible that they were also included as provision for the afterlife. As there are no copper alloy coins, these must have been specifically chosen, most likely based on the metal type of the coin.

One of the earlier burials in the database is 670 from Wederath-Belginum, dating to after 47 BC (app. 4, 3.101). This burial contained an unidentified silver coin, but given the date, must be a Republican *denarius*. More unusual is the inclusion of two Celtic copper alloy coins. It is possible that this was a method of embracing local identity, while observing the Roman tradition.

Conclusion

To conclude, there is a lack of identifiable patterns in the dataset. What is most obvious is the dominance of copper alloy in burials throughout the period of analysis. This would suggest that it is the observance of the custom that it important, and not the metal type of the coin being placed; it does not have to be a specific denomination. However, the use of silver is not completely absent from the database. It appears in the early Imperial period, but more frequently from the beginning of the 3rd century AD. It is in this period that the *antoniniani* are also introduced. The early examples are perhaps expected, given the long circulation period of the Republican *denarii*, and they do remain rare. The inclusion of the silver coins and *antoniniani* in the later period is also a rare occurrence, although more frequent than the early examples. Eleven burials in the database contain coins of multiple metal types. The variability between dates and locations mean that these examples are not directly

comparable. It could be argued that the different metal type has a different meaning; if one was for Charon, then the other is representative of provision for the afterlife or a gift from the living to aid the passage of the deceased.

Each of the irregularities needs to be studied individually to fully understand their significance, they could be different functions or could be related more to a display of wealth and status.

5.4.4 Number of coins in the burial

As with the other geographical areas, it was clear during data collection that a number of burials contained more than one coin. This is one of the most accurate analyses, as the number of coins present in a single burial is usually recorded. The number of coins can be more ambiguous in older publications where material has been lost.

Table 15 shows the number of burials with one, two, three, four, five and six or more coins:

No. of coins per burial	Number of burials	Percentage of burials
One	498	79.4
Two	75	12
Three	32	5.1
Four	7	1.1
Five	7	1.1
Six or more	8	1.3

Table 15: Table showing the number and percentage of burials and the number of coins they contain (references: app. 4)

The table shows that the deposition of a single coin was most common, with 79.4% (498 burials) of the 627 burials containing one coin. The use of multiple coins is much less frequent. After the single examples, two coins are the most common at 12% (75 burials) and this drops significantly to just over 5% (32 burials) with three coins. Only 1.3% of the burials contain more than six coins.

Explanations for the inclusion of more than one coin are difficult, as it is the choice of the individuals who buried the deceased. It is possible that multiple coins have

different meaning. For some, a single coin may symbolically represent a higher number, or perhaps this was all they could afford. Analysis of the other grave goods can be helpful to ascertain whether it is possible to interpret a rich burial in the case of multiple coin offerings. This will be undertaken in section 4.3.7, which looks at the associated grave goods. Another possibility is that the multiple coins may be offerings from different people i.e. friends or family members; a way of sacrificing their own belongings to aid the transition and continued existence of the deceased in the afterlife.

A second analysis was undertaken, which examines whether the number of coins deposited changes over time. Is there a period in which a single coin is more dominant, or an identifiable change to the use of multiple coins?

Figure 26 is a scatter diagram plotting the number of coins in a burial against the date:

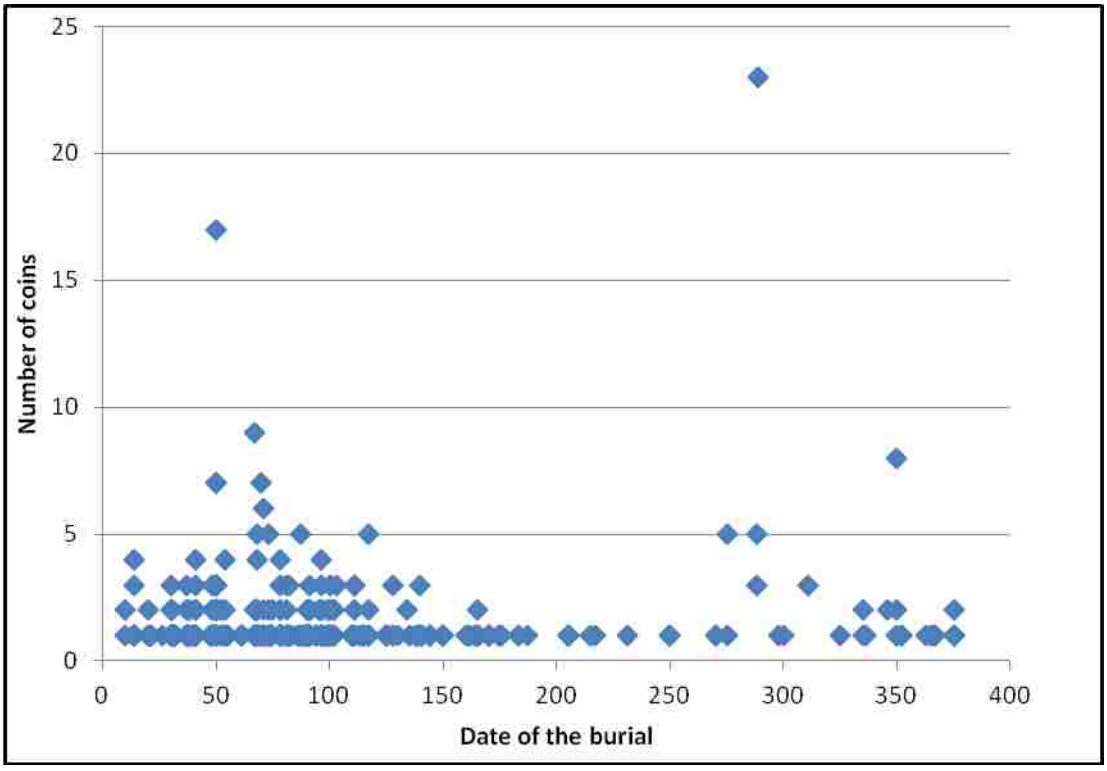

Figure 26: Scatter diagram showing the number of coins in each burial, divided by burial date (references: app. 4)

The deposition of a single coin occurs throughout the period of analysis, although is most frequent in the period 0-150. This is perhaps expected considering the dominance of the use of one coin in many of the burials. The use of two coins can also be seen in most periods, although there is a gap in the 3rd century. This may be a notable absence, although could be explained by fewer burials dating to this period. Further work on this is required to make definite conclusions, and highlights an area for further study.

The graph shows an interesting pattern in the data. The cluster of multiple coin offerings in the 1st century and first half of the 2nd century AD is notable. It is possible that the peak at c. AD 50 should be more level, as there are a large number of burials that are dated to the 1st century, and therefore the midpoint of AD 50 was used to create the graph. Nevertheless, they do still date to within the 1st century, therefore so the clustering of multiple examples will not change. With the exception of four examples (two burials containing three coins and two containing five), all the burials that contain between three and seven coins are located in the 1st century. This may suggest an early tradition for multiple coin offerings. However, considering the number of burials in the database dating to the 1st century AD, it is possible that more examples have created this clustering effect.

The use of more than five coins is far less frequent and does not appear to be confined to a single period of analysis. Burial 2196 from Wederath-Belginum dates to the within the 1st century and contained 17 coins (app. 4, 3.368). The other burial with a large number of coins is Burial 2 from Cologne, which contained 23 (app. 4, 14.2). This burial was dated to between the second half of the 3rd century and the first half of the 4th century. With only two examples, no definite conclusions can be made, although it seems likely that there is no correlation between the date of the burial and the inclusion of a large number of coins. No link can be made between geography and the deposition of multiple coins; the burials are not confined to one particular region. Again, it is probably the result of personal choice of those involved in the burial process.

Conclusion

The study of the number of coins has shown patterns which require further testing. The placement of a single coin is most frequent and occurs throughout the period of analysis. The use of two coins follows a similar model, with a gap in the 3rd century; this could be explained by fewer burials of this date in the dataset. It is something which should be tested as part of future research. Most significant is the clustering of the multiple coin offerings in the 1st century. The deposition of large numbers of coins, i.e. 17 and 23, are a rarity in the database. They also show no chronological or geographical correlation; the first dates to within the 1st century and comes from the cemetery at Wederath Belginum and the second dates to the end of the 3rd century AD and comes from the cemetery at Cologne. It seems likely that their presence is the decision of those involved in the burial process. As will be discussed in more detail in chapter 8, these are patterns which can be identified in the other geographical areas.

5.4.5 Location of coin in the burial

The investigation of the location in the burial proved to be more difficult than first anticipated in this area. It quickly became apparent that there were significantly more cremations than inhumations; this is because cremation was the dominant burial form until the late imperial period, with a few earlier exceptions. It was necessary to look specifically for late cemetery excavation reports, despite this being a method which can create bias. Only 32 burials have the position of the coin noted. 29 of these have the coin(s) in a single position, and three burials have multiple coins that were deposited in more than one location. These will be discussed separately at the end, with the possibility that they reflect more than one symbolic belief. Considering the lack of evidence and the difficulty with using such a small dataset to make conclusions, the evidence in this section will be considered together with the work of Gorecki to see if similar observations can be made (Gorecki 1975).

Several investigations will be undertaken in this work. The first will look overall at the locations of the coins in the burials, based on the recorded find spot. Since the coin can be moved by post-depositional processes, a second analysis will consider the possible original position of the coin. It is also necessary to examine how the

position of the coin changes over time; can a change in belief be identified? The latter part of this section will concentrate on the data presented by Gorecki; do the results of both studies show similar practice?

The analyses above concentrate on the information from the inhumations, but the location of the coin in the cremations must not be ignored. Therefore, the final part of this study will examine at the position of the coin in cremations.

Location of the coin based on the find spot

Table 16 shows the number and percentage of the coins found in each of the locations in the inhumations:

Location of coin	Number of burials	Percentage of burials
Head	9	31
Chest	2	6.9
Arms/hands	2	6.9
Pelvis/waist	4	13.8
Upper leg	1	3.5
Lower leg/knee/feet	6	20.7
In a vessel	2	6.9
In the fill	3	10.3

Table 16: Table showing the number and percentage of burials with coins in each location (references: app. 4)

The table shows that the largest percentage of the coins is found around the head (31%), but this is not the only position recorded. If the location of the burial was key to a single, strict belief in a particular mythology, then surely all the burials would have the coin in the same position. Of course, there is the possibility that the coin has been moved by post-depositional processes, but those in the fill, a vessel or the lower half of the body cannot have been placed at the head. This suggests that there is not one, strict mythology that the prosition of the coin is linked too.

The second most frequent position for the coin is at the lower half of the legs (20.7%). It is possible that these were placed in a bag or purse. The same can also be argued for the presence of the high percentage of coins around the waist (13.8%). Coins in the fill are also strongly represented (10.3%) and it seems likely that this is not the result of accidental loss. It is argued that these are gifts from the living,

perhaps as part of the mourning ritual, to the dead. It is entirely possible that they are thrown into the grave prior to, or during, the infilling of the burial. Perhaps it is a way for the living to sacrifice something, or even a method by which they can participate in the funeral ritual, especially if they are not close family members.

Location of the coin – interpreting the original position

The second analysis investigates the possibility that the recorded position of the burial was not the original location. To do this, it is necessary to group together a number of the categories discussed above. This considers that all those found on the chest were originally placed on the mouth or eyes and have been dislodged. Those around the upper thigh, waist and pelvis are also thought to have come from roughly the same area. Those placed in the hands as opposed to the arm are also analysed separately. Those at the lower legs and feet, in the vessel and in the fill, are still separate categories as it is highly unlikely that they were placed in another location and managed to migrate to this position.

Table 17 shows the revised numbers and percentages:

Location of coin	Number of burials	Percentage of burials
Head/neck/chest	11	37.9
Waist/pelvis/upper leg	5	17.3
Hands	2	6.9
Lower leg/feet	6	20.7
In a vessel	2	6.9
In the fill	3	10.3

Table 17: Table showing the revised percentages for the location of the coin (references: app. 4)

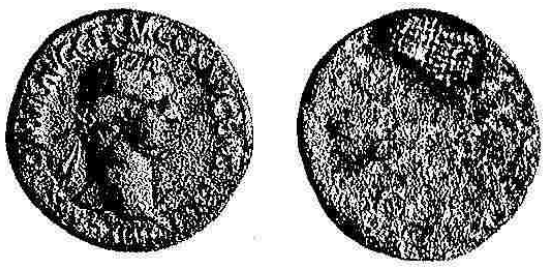

Figure 27: Coin with textile remains attached (Moraitis 2003, 157)

The table shows an increase in the number of burials with the coin possibly originally positioned on the eyes or mouth (37.9%), but this is still less than half of the total number. Again, those at the feet and lower leg are still numerous (20.7%). The number located around the waist and upper leg, possibly once contained within a purse, has

increased (17.3%). Within the database, there are a number of the coins noted as having textile fragments attached to the coin, this would support the assumption that the coins were deposited in purses. For example, Burial 34 from Losnich in Bernkastel-Wittlich had evidence for textile fragments attached to the reverse of the coin (figure 27). The 23 coins found in Burial 2 at Köln near the right knee of the body were found grouped together as if once in a purse or a pocket (app. 4, 14.2). The excavation report contains no information on the condition of the coins, so it is unclear whether or not there was textile remains attached. These examples illustrate that coins were also placed within purses and clothing pockets and did not necessarily need to be placed on the body of the deceased. Coins placed in a vessel are interesting. It is possible that these were used in the absence of a purse and was a method to store the coins so that they could be collected by the deceased on the journey to the afterlife.

Changes in the location of the coin over time

The third analysis looks at the date of the burial and compares it to the location of the coin. Is it possible to observe a trend or change in practice in reference to the location of coin placement? 27 of the burials have information on the date of the burial and the location of the coin, so they have been divided into 50-year date ranges.

Figure 28 shows the location used in each of the date ranges:

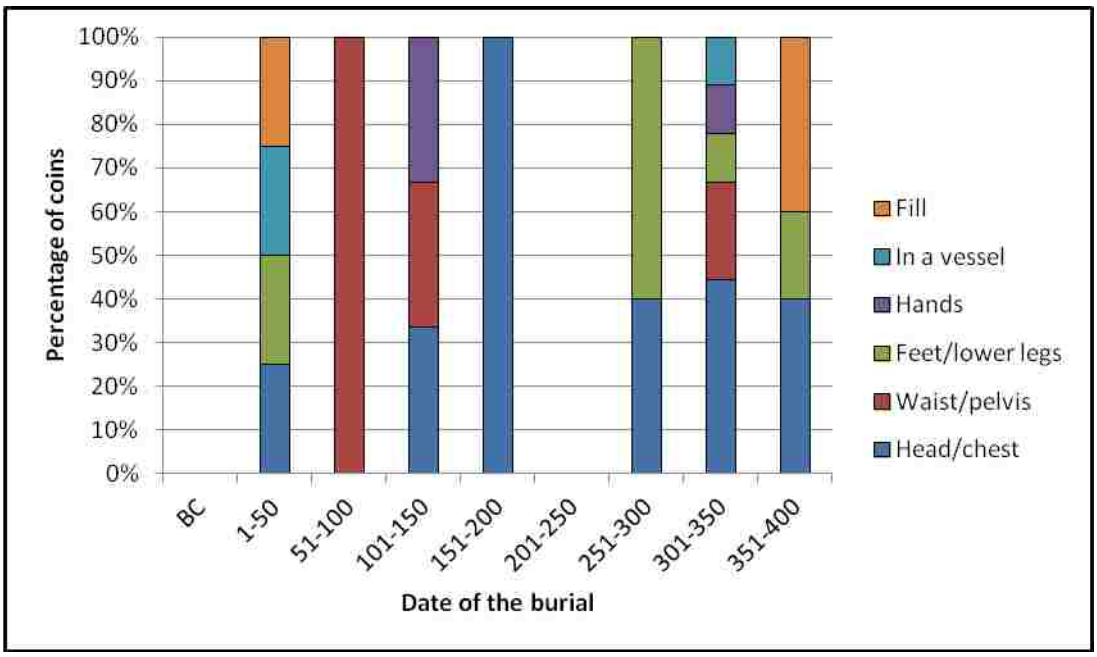

Figure 28: Location of the coins in each of the date ranges (references: app. 4)

No identifiable pattern emerges from the few examples that are present in the database. The head/chest is used throughout the period of analysis, although most frequently in the second half of the 2nd century AD. The locations become much more varied in the 4th century AD. This could be explained by the higher number of examples dating to this period. Or, it could be indicative of a change in practice. This is something which should be highlighted for future research, using many more examples.

Burials containing multiple coins found at different locations

The next part of the study will consider the three burials which have more than one coin, deposited at different locations in the grave. Burials 11 and 37 from the Hürth-Hermülheim both date to the mid to late 4th century and contain two coins each. In Burial 11, one of the coins is located in the right hand, and the second is to the east of the burial (app. 4, 16.5). In Burial 37, the silver coin is located in the mouth of the deceased and the second (copper alloy) is located in the earth of the burial, but not the fill (app. 4, 16.10). It is possible that the second coin has been moved after it was placed in the burial as the description is a little vague. It is also possible that the coins in the mouth and the hand are intended for Charon, or another afterlife figure, and the second coin has been thrown in later, perhaps by a mourner at the funeral.

The third example is Burial 2 from Brühl, which dates to the last quarter of the 3rd century (app. 4, 15.2). This grave contained three coins; one in the right hand (copper alloy), one on the right foot (copper alloy) and one on the lower jaw (silver). Interestingly, like Burial 37 from Hürth-Hermülheim, the silver coin was in the mouth. It is tempting to suggest that in the case of multiple coins of more than one metal type, the silver coin would be around the head. But only two examples of this do not make a pattern and this is something which should be tested in further work. It is possible that different locations of the coin are indicative of different beliefs or perhaps a different part of the funeral process. It is difficult to draw firm conclusions, but if one of the coins is for Charon, it is possible that the other is for survival in the afterlife. It is equally possible that both are intended for Charon or that neither is in reference to this mythology.

Comparison to the work of Gorecki (1975)

To draw wider conclusions about the observations within this dataset, a comparison will be made to the catalogue compiled by Gorecki (1975). It is hoped that they will follow similar patterns. For the area of modern Germany, Gorecki provides information for 268 inhumations; 132 of these have information on the location of the coin in the burial. Others had to be discarded as the description was too vague. The information provided in his catalogue has been used to undertake a similar analysis to the previous section. Gorecki's sample area was the Rhine, Mosel and Somme, only those located in the area of modern Germany are used for comparison.

Table 18 shows the location of the burials recorded in Gorecki's research:

Location of coin	Number of burials	Percentage of burials
Head/neck/chest	57	43.2
Arm/hands	19	14.4
Waist/pelvis	6	4.5
Feet/lower leg	24	18.2
In a vessel	8	6.1
On a vessel	1	0.8
In the fill	17	12.8

Table 18: Table showing the position of coins in Gorecki's analysis (data from Gorecki 1975, 310-398)

The table shows that the data from Gorecki and the information in this study follow roughly the same pattern. The most frequently used position is the head/neck/chest at 43.2%. Although this is slightly higher than amongst the burials analysed in this thesis, it is notable that in both studies, less than 50% of the coins are found around the head and neck. The placement of the coin(s) at the feet of the deceased is also high. Again, the percentage is slightly higher than in this study, but this could be caused by the significantly increased number of examples. The percentages of burials with the coin located in the fill or in a vessel are also roughly similar.

The main difference is the placement of the coin in the hand/at the arms and the coins around the waist/pelvis. Gorecki's research has a much higher occurrence of coins around the arms of the deceased, and fewer coins around the waist. This can be explained again by the overall increase in the number of examples, or perhaps indicates a tradition in the areas looked at by Gorecki. It is difficult to reach a definitive explanation for the difference, but it is perhaps more relevant that both datasets do follow the same pattern. An aspect recorded in the inhumations of Gorecki, which is not mentioned in the examples from this study, is the coin described as 'on' the vessel. With only one example, this appears to be a rarity, although it is easy for coins in this location to be dislodged and may actually be under-represented.

A chronological study of the location of the coin in burials using the date of the burial is difficult, as this is not noted in Gorecki's research. However, given that the analysis in section 4.3.2 has shown that the majority of the coins are placed in the burial within 50 years of minting, it is possible to use the coins to date the burial. Again, the aim is to compare the patterns in Gorecki to those identified above to see if the limited number of coins in this work has had an effect on the overall patterns.

Figure 29 shows the location of the coin in each of the time periods with the burials divided by burial date (based on the date of the coin):

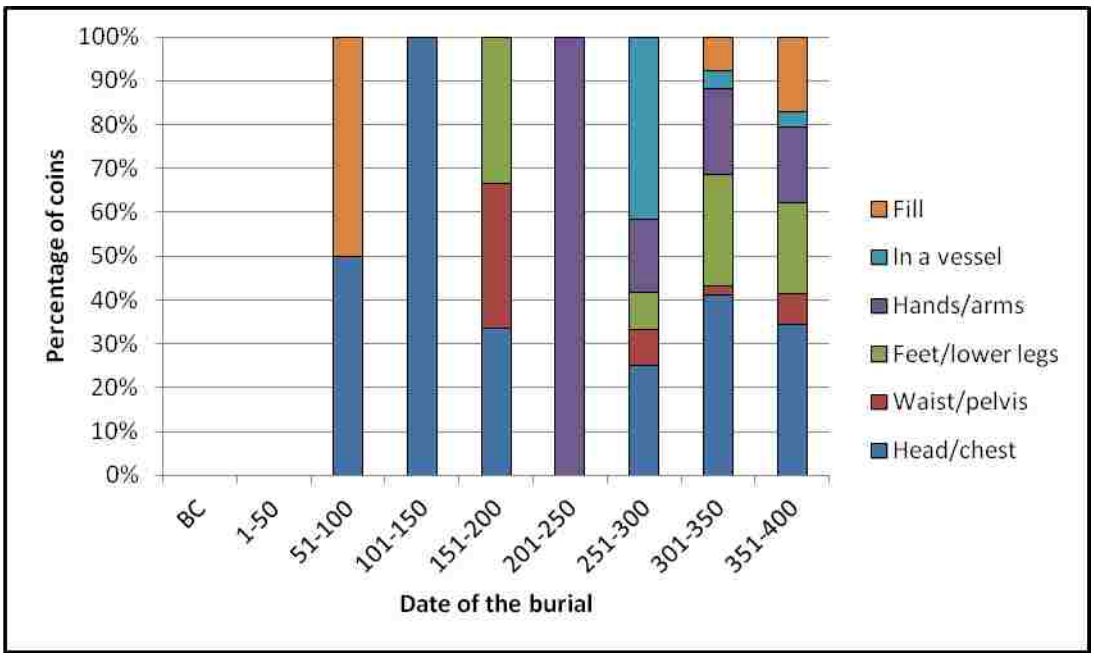

Figure 29: Graph showing the position of the coins, divided by burial date (Gorecki 1975, 310-398)

The graph shows again that there appears to be little correlation between the location of the coin and the date of the burial. This study includes 100 examples, significantly more than the 29 included in the above study, but they show a similar pattern. The placement of the coin around the head continues throughout the period of analysis; this was seen above and also in the other geographical areas. From the middle of the 3rd century, the locations of the coin become much more varied. Unfortunately, the majority of the burials with the coin position noted (92%), date to the late 3rd and 4th centuries AD, which could explain the greater variety in this period. The dominance of cremation until this period makes a chronological study extremely difficult. It means that the early evidence (between 51 and 250 AD) is based on only eight examples; the other 92 are within the last three date ranges.

Location of coins in cremations

The final part of the section on coin location will be an analysis of the cremation burials. Although the inhumations are more informative in this study, the cremations should not be ignored. There are four different locations noted for the coin in cremation burials. They are either within a vessel, on the vessel (used like a stopper), in the grave pit or in the fill. As with the inhumations, the main problem is the

location of the coin not being noted in the excavation report. Nevertheless, the location of the coin has been recorded in 295 cremations.

Table 19 shows the position of the coins in the cremation burials:

Location of the coin	Number of burials	Percentage of burials
In a vessel	100	33.8
In the grave pit	187	63.4
On the top of a vessel	4	1.4
In the fill	4	1.4

Table 19: Location of the coins in the cremations (references: app. 4)

The table shows that the majority of coins are placed in the grave pit as opposed to within a vessel (63.4%). The number of burials with the coin placed in the vessel is also high, 33.8%. Perhaps more unusual are those described as on the top of a vessel. It is possible that these have been used as a stopper for narrow-necked vases which contain the cremated remains, but the descriptions are not clear. If this is the case, it is tempting to suggest that they are placed to prevent the deceased leaving, but this is speculative at best.

Like the inhumations, there is the presence of coins in the fill of the grave. Given the number of coins in the fill, it is most likely that they are the result of mourners throwing the coins into the burial during the infilling of the grave. The reasons for which have been discussed above. This is supported by the observation that coins in the fill are not recorded as burnt (e.g. burial 717 from Wederath Belginum, app. 4: 110).

Conclusion

To conclude, this subsection looked more closely at the location of the coins in the burials. The aim was to observe whether one position was dominant, suggesting the observance of a single belief and mythology, or if the picture was much more varied. Analysis showed that the coin was most often place around the head. The original intended position is unclear but it could have been on the mouth or the eyes. However, the majority of the coins were not placed around the head; over 50% were deposited elsewhere on the body. The remainder of the coins are found at the lower

legs/ feet, the waist, the hands, in a vessel and the fill. It is possible that each location has a different significance, although the meaning is difficult to determine. What it does serve to highlight, is that the coins do not appear to be deposited in observation of single mythological belief and the location may be based on the individual preference of those involved in the burial process.

With so few examples within the database of this work, it was necessary to compare the findings to the study by Joachim Gorecki in 1975. Interestingly, both analyses produce similar patterns with the only notable difference being those coins in the hands and around the waist. This adds validity to both of these studies and suggests that the patterns identified are likely to be representative of the region as a whole. Of course, this is something which requires testing, incorporating more examples.

The location of the coins in the cremations also shows variation, with the majority placed within the grave pit (63.4%), and the others distributed between vessels, the fill and even one used as a stopper. Interpretation of coins in cremations is almost impossible as no evidence exists to aid an explanation. It is probable that they are deposited for the same reasons as the inhumations, but differentiating between function is not possible.

No clear patterns were identified in the chronological analysis of the location of the coin. The head is used consistently throughout the period of analysis, and the location appears to be more varied from the end of the 3rd century AD. The latter could be explained by the deliberate inclusion of later inhumations and the increased number of examples. These observations are also confirmed by Gorecki.

The above evidence suggests much more variation in practice than first assumed. If the coin was being offered in the observation of a single, strict mythology then this variation would not exist. This work is not suggesting an absence of belief in Charon and the associated mythology, it is just bot universal. The placement of the coin seems to be linked to the personal choice of the individuals involved in the burial process, with evidence for the active participation of mourners with coins found in the fill.

5.4.6 Pierced coins and coin condition

The piercing of a coin can significantly aid interpretation. When a coin is pierced, it can be argued that the coin is no longer performing an economic or monetary function. Instead, it appears to be included for its aesthetic or even symbolic value. It is difficult to interpret whether these were belonging to the deceased themselves, or given to the deceased as part of the funeral.

As with the other geographical areas, it is rare to find this attribute. Within Germany there are four burials that contain a pierced coin (app. 4: 3.2, 4.7, 4.16 and 4.59); this is only four coins out of 887 in the database (0.5%).

Burial 10 from Wederath-Belginum contained a pierced copper alloy *as* (app. 4: 3.2). It is one of three coins dating to the first century within the burial. Unfortunately, the coin is illegible so there is no other information, and the position is also unknown. The pierced example in this case appears to be the earliest, dating to the first half of the 1st century, whereas the other two date c. 50 years later. Given the circulation period of copper alloy coins, and the fact that the pierced example cannot be accurately dated, this is not a major consideration. The coin is noted as probably burnt, suggesting that it was a pyre offering. It is possible therefore, that the coin was being worn by the deceased at the point of cremation. This could be a coin which has a special aesthetic significance to the deceased and was worn as jewellery. The fact that the coin is worn, suggests that it was either in circulation long before the burials, or that it was handled quite frequently. It is also possible that the coin was placed by the family for symbolic reasons, perhaps aiding or guaranteeing the journey of the deceased.

The second example is from a possible inhumation, Burial 117, from Keckwiese (app. 4: 4.16). The burial also contained some burnt remains, so the type of burial was unclear, but it has been interpreted as that of a child. It also contained a worn and burnt copper alloy *as* of Augustus. The location of the coin in the burial is also unclear. Again, there seems to be no correlation between the date of the coin and the burial. The coin was placed in the burial c. 10-15 years after minting and it is worn

but legible. It is difficult to distinguish between placement for aesthetic or symbolic purposes, since the other grave goods include only nails and ceramic vessel. It is interesting that this is another example of a pierced coin in an infant burial; this appears to be a commonality between all of the case study regions. The coin is also described as burnt, as well as worn, suggesting that, if this was a cremation, the coin was placed on the pyre and could have been worn by the child.

Burial 41, also from Keckwiese in Kempten, is the third burial to contain a pierced coin (app. 4:7). Like the first example, the coin is part of a multiple deposit. It is a copper alloy *as* but as it has been burnt, it is illegible. What is most unusual about this coin is the position of the piercing, which is in the centre. Very few coins are pierced in the centre; most are pierced either above the head or below the neck of the Emperor on the obverse, with the former being more popular. Again, the coin dates to roughly the same time as the burial.

The final example is also from Keckwiese (app. 4: 4.59); Burial 388 is that of an infant and contained a copper alloy *dupondius* of Claudius for Germanicus. Once again, the coin has been placed in the burial within c. 20 years of minting and so is considered contemporary. What is unusual about this coin is that it is described as being pierced twice. Unfortunately there is no other information or description of the location of these piercings; therefore it is unclear why there were two holes. It is possible the first hole broke and so there was a need for a second to be added, but this is only speculation. The coin is described as very worn, suggesting that perhaps the coin was used frequently, possibly as a jewellery item. As the deceased was an infant, it can be argued that this was an item belonging to a family member, possibly the mother, who has put it into the burial. This could be for protection in the afterlife, or simply to give comfort from the thought that they are giving part of themselves to the deceased and it is as good as them being with the child.

Condition of the coin

An attempt was also made to look at the condition of the coin when it was placed in the burial. This is difficult as the coins are often very corroded or damaged making it difficult to ascertain the original condition. Also, the coins are not often cleaned to a

point where this can be identified. Nevertheless, the Germany database contains information on the condition of 619 coins. The condition of the coin has been divided into the following three categories: excellent to lightly worn, worn and very worn to bad.

Table 20 shows the percentage of coins in each of these categories:

Coin condition	Percentage of coins
Excellent to lightly worn	50.6
Worn	29.6
Very worn to bad	19.8

Table 20: Table showing the percentage of coins in each of the condition category (references: app. 4)

The results show that more than half of the coins with the condition noted are classed as excellent to lightly worn. This is perhaps a reflection of how long the coins have been in circulation; in the majority of examples only a few years, therefore they would not be worn significantly. It is difficult from this information to argue specific coin choice and taking into consideration the circulation information it is unlikely this type of analysis can be valid. The fact that the other 50% coins are noted as worn, further suggests that the coins have not been specifically chosen and taken from general circulation with little regard of the condition.

Within the database 443 coins from 567 cremations are described as burnt which is a significant proportion. These coins are most likely to be pyre offerings as opposed to grave goods. This may indicate the belief that the coin is required as part of the cremation, in order for the deceased to receive the benefit from its presence. This is a rarity in comparison to the other geographical areas studied. This could be because there are significantly more cremations within this database, and also that this aspect is recorded in detail in excavation reports.

Specific coin choice?

Interpreting the reason why examples are specifically chosen is extremely difficult as personal choice is specific to an individual and something which cannot be traced in the archaeological record. The choice of a coin may have no relation to the metal

type or the rarity of the coin, but could be as simple as the shape of the coin or the depiction on the reverse

However, within the Germany database there is one burial that could be argued as having the coins struck specifically with the intention of being placed within the burial. Burial 1 from Brühl was an inhumation dating to the end of the 3rd century (c. 270-280), which contained five coins contemporary with the date of the burial (app. 4: 15.1). Two of these were copper alloy, two were *antoniniani* and one was silver. Three of these can be argued as being specifically chosen. Coin 1 was a provincial issue from Penrinth in Thrace (the exact type in unknown); it is very rare for coins of this type to have travelled this far (Haberey 1962, 307-402). Coin 4, a silver coin of Postumus (295-268), has been struck using the die for an *aureus.* The author of the excavation report argues that this was definitely not minted for circulation, and was instead used as a type of medallion. It has the double head of the emperor and Hercules, a coin minted only at Köln. Coin 3 was a copper alloy coin of Postumus (295-268), also struck using the die for an *aureus*. All of the coins in this burial are described as not worn or hardly worn, suggesting that they had not been in circulation, or even used extensively by the individual who had struck them. It seems likely that the coins in this assemblage have been specifically chosen for deposition in the grave, considering the rarity of the examples. This does not appear in the other geographical areas, and so is the best evidence for specific coin choice within this PhD. Specific coin choice is difficult to find and harder to explain. It is possible that these dies have a particular significance to the deceased, but this will never be known.

Conclusion

In conclusion, the pierced coins are a rarity in the database. With only four examples, it is difficult to make any definite conclusions. What is unusual in the examples from Germany is that they are copper alloy. In the other geographic locations, coins arguably placed in the grave for their aesthetic purposes are often silver and have been in circulation for much longer before being deposited. It is possible to argue that the copper alloy examples could be included as symbolic objects. The coins

which have been chosen do not appear to be particularly special; they are all placed in the grave within c. 20 years of minting and described as worn.

What is perhaps most interesting are the examples from Keckwiese. As previously stated, pierced coins are a rarity and yet there are three from a single cemetery. Looking more closely at the examples, all of these are the graves of children. This suggests a local tradition for the deposition of pierced coins in child burials. It is possible that the coins were part of a jewellery item belonging to the child ore a a close family member, perhaps the mother, who has given an item of importance as a gift to the deceased. The coin could be an object of protection for the child in the journey to the afterlife or it could be a comfort to the person giving the coin, as it is like giving a part of that person. It may also be included to act as comfort to the child when they reach the afterlife.

The condition of the coin is also difficult to link to specific coin choice. Within the database c. 50% of the coins are noted as in excellent to lightly worn condition, however this does not seem to be connected to specific coin choice. It is more likely to be linked to the short circulation period of the coins before they were placed in the grave. The fact that the other 50% are worn, also suggests that the condition of the coin has no bearing of the effectiveness of the custom. There is no evidence for specific coin choice based on degree of wear. It is possible that with further information a pattern could be identified; this is something for future work.

5.4.7 Associated grave goods

The associated grave goods must also be considered, as they can be used to aid interpretation of the coin. Three main analyses are attempted as part of this. The first looks more closely at the burials with the pierced coins. If they are connected to other beads, it may indicate an aesthetic purpose, or if other charms are included, it may indicate a symbolic function. The second analysis looks at the burials that contain silver coins; when considering the other grave goods are they linked to status? The third analysis concentrates on the actual grave goods. Is it possible to interpret the economic status of the individuals who have placed the coins in the

burials, even the graves with copper alloy coins? Is it every level in society in this area observing the custom or is the practice socially limited?

Pierced coins

As discussed above, there are four burials in the database containing pierced coins. Burial 10 from Wederath-Belginum contained an illegible pierced copper alloy coin, as well as a glass bead, a ceramic dove and other ceramic vessels (app. 4: 3.2). It is possible that the bead is linked to the placement of the coin and they formed part of a jewellery piece. The other grave goods do no suggest a wealthy occupant.

The three infant burials from Keckwiese in Kempten (Burials 41, 117 and 388), which contained pierced copper alloy coins, all contained similar grave goods. There are no other beads or amulets, but there are nails, ceramic fragments and glass fragments. Burial 117 also contained a bell and Burial 388 a Samian vessel (app. 4: 4.7, 4.16 and 4.59). Again, these do not reflect burials of excessive wealth and no beads or amulets make it difficult to interpret function. The deposition of a bell in burials for warding off evil spirits has been discussed by Cool in reference to the burials at Brougham, but there is nothing to suggest that this was not also the function of the bell in this grave (Cool 2004, 401). As argued above, the coins may have belonged to a close family member who has given over a piece of their own jewellery as a way of symbolically accompanying the child on the journey, or perhaps to offer protection.

Graves containing silver coins

A second investigation into the associated grave goods focused on the burials containing silver coins and *antoniniani*, assessing the possibility that these may indicate wealthier burials. Within the database there are 21 burials containing silver and/or *antoniniani* and overall they contain roughly the same types of grave equipment. They most often contain iron nails and some hobnails, along with ceramic and glass vessels. Bronze vessels and brooches are also common throughout the database, therefore it cannot be used as an indicator of wealth. The number of grave goods does not seem to be an indication of status.

Nevertheless, there are a number of burials which could be argued as belonging to those of wealthier backgrounds. Burial 1502 from Wederath-Belginum could be considered wealthier due to the sheer number of bronze objects which it contains, as well as three copper alloy coins and a *denarius*. The grave goods include two bronze brooches, fragments of bronze, five bronze rings, a bronze key, iron fragments and iron nails (app. 4: 3.243). Burial 2370 from Wederath-Belginum contained four coins, three of which were copper alloy and one silver. The other grave goods included glass and ceramic vessels, a bronze mirror, three bronze brooches and the remains of a bronze chain as well as three fragmentary bronze rings and other bronze fragments (app. 4: 3.406). There is also evidence of textile remains. It is possible that the calibre of the objects is an indication of increased wealth, especially when compared to the grave goods of the other burials in the database.

A final example is Burial 2 from Cologne, which contained 23 coins; two silver and 21 *antoniniani* (app. 4: 14.2). The other grave goods include two flasks and a vial, a small iron knife, a bronze object in ten fragments, various armrings, an iron finger-ring, glass vessels and ceramic vessels, including a Samian jug and a bone hairpin.

The grave goods in these examples are irregularities and could be considered belonging to wealthier individuals. This suggests that every level in society is observing the custom. Overall however, there appears to be no correlation between the metal type of the coin and the wealth and status of those buried.

Burials containing precious metal objects

Another possible route of investigation could be the consideration of burials containing precious metal objects. Within the database, there are five burials that contain silver objects and two that have reference to gold objects.

Burial 570 from Kapellenösch contained a silver spiral finger-ring, a rarity in the database, but few other items; only hobnails, small iron nails and a ceramic vessel (app. 4: 19.49). This suggests that this is not a wealthy burial. A similar case can be seen in Burial 1579 from Wederath-Belginum, which contained three copper alloy coins. Again, it contained a silver finger-ring, together with a Samian bowl, a ring,

other ceramic vessels and nail fragments (app. 4: 3.266). Two silver fingerings were found in Burial 15 from Weissling, which also contained a bronze armring, a beaker and a handled jug (app. 4: 11.1). The presence of a silver finger-ring with a gem is also noted in burial 12 from Viktorstrasse, along with four copper alloy coins, a razor, iron nails, ceramic vessels and a gaming piece (app. 4: 20.2). Burial 5 from Hürth-Hermülheim contained a copper alloy coin, fragments of the glass vessels, ceramic vessel, a silver *stilus* and a knife (app. 4: 16.4).

These items are a rarity within the database but this does not necessarily mean that they belong to an individual of a higher class in society. The lack of other status indicators suggests that perhaps these are not the burials of the elite.

Two burials within the database mention the inclusion of a gold object, again a rarity but does it indicate a wealthier individual? Burial 1 from Brühl contained 5 coins, two copper alloy, two *antoniniani* and a silver coin. The grave goods include glass vessels (one blue glass flask), small bronze figures and animals, other bronze fragments and a knife with a bone handle and gold studding (app. 4: 15.1). Again, this burial does not contain a large number of objects but those that are present may suggest the burial of a wealthier individual.

The second example is Burial 1 from Köln, which contained a sestertius. The other grave goods included a necklace made of small gold plates, a gold finger-ring with a sapphire, a gold armring, an iron knife and ceramic vessels (app. 4: 14.1). This is one burial in the database that can be attributed to a person of an elite class because of the number of gold objects and their rarity within the database. The use of the copper alloy coin is significant as it suggests that the metal type of the coin was not important when observing this custom, and that the use of silver coinage cannot be used to indicate a wealthy burial.

Conclusion

Overall, the study of the associated grave goods has created a number of possible interpretations of the role of coins in burial ritual. When interpreting the pierced examples, the other grave goods can be used to ascertain whether they are provided

as aesthetic or symbolic reasons. For example, Burial 10 from Wederath-Belginum contained a glass bead, which suggests that the pierced coin may have been part of a jewellery piece. These may have belonged to a family member who has given it to protect the deceased on the journey to the afterlife. Unfortunately, the other examples do not contain any beads or other jewellery items.

Looking at the burials which contain silver coins, they do not appear to be of excessive wealth. This suggests that the metal type of the coin has no reflection upon the status of the interred; it is the observation of the custom that is more important than the specific coin that has been placed. Using the grave goods, the database shows that the objects offered are roughly similar, with the inclusion of ceramic and glass vessels, iron nails and frequently bronze objects. This makes the interpretation of wealth and status very difficult. However, there are notable exceptions, for example Burial 1 from Köln, which contained gold objects. This evidence suggests that every level of society was observing this custom, and it was not confined to either the poorest or richest individuals. This is completely different to burials in the pre-Roman period, and outside imperial boundaries, where the coins are mostly silver and gold and the graves contain high status objects.

5.5 Conclusion

In conclusion, the evidence from Germany follows a similar pattern to the other areas within imperial boundaries. The investigation of the early examples showed that the number of burials with coins were relatively few in number and appeared wealthy in nature. These ranged in date from the beginning of the 3rd century BC and continued up to the end of the Roman Republic. The majority of the coins were gold and silver (c. 61%), and the other grave goods included gold and silver jewellery and bronze vessels. No correlation could be made between this practice and the sex of the deceased, as the information was not available, although the other grave goods suggest the presence of both men and women. This shows that there was an existing tradition, albeit limited, for the deposition of coins in burials. As with the other geographical areas, a pre-existing tradition may have meant an easier uptake of the custom or even that the idea did not come from Rome at all.

The placement of coins in burials increases significantly in the imperial period. The chronological study shows a gradual uptake in the practice, reaching a peak in the second half of the 1st century. Although there is a drop in practice from the first half of the 2nd century and into the 3rd century, it does not stop.

The comparison between the coin and burial date showed that they were roughly contemporary with the majority of coins being placed in the burial within ten years of being minted. This indicates that the coins were being taken from general circulation to be used in the burial with no indication of specific retention. This is supported by the analysis of coin condition, where most examples are noted as worn. There are of course exceptions to this. Burial 334 for example, dated to the 4th century and contained a coin from the middle of the 1st century, meaning that the coin was struck c. 300 years before it was used as an offering. This investigation suggests that the type of coin used in burials was not important, just its presence. However, it does appear that certain individuals have chosen a particular coin to be included.

The analysis of the metal type showed that it was predominantly copper alloy (98.3%) used in burials. There are also a small number of silver coins and *antoniniani* within the database, but the reasons for their use instead of copper alloy is unclear. There is little identifiable chronological pattern to the metal type of the coin used, except perhaps the increase in the use of silver and *antoniniani* from the first half of the 3rd century. This confirms it is the coins from general circulation that are being used in the burial. It is not the specific coin being used that is important, but instead the symbolism surrounding the act of its deposition.

Investigation into the number of coins in each metal showed that one coin was most commonly deposited, throughout the period of analysis, although clustering of multiple coins, between one and four, can be identified in the 1st century AD. This could be explained by the greater number of burials dating to this period, and is something which should be investigated further. Two burials were identified as irregularities in the database, containing 17 and 23 coins. Since no correlation can be made between these examples, the reasons for the inclusion of this number must

have been the choice of those involved in the burial process. It is possible that they represent a collection by the mourners, but this cannot be confirmed.

The database shows that a large proportion of the coins, c. 43%, were found around the head. However, this is not the majority. Other locations, such as the feet, the hands and the fill are also significant. They may indicate a different function of the coin; they could be gifts from the mourners to aid transport and provide comfort in the afterlife. This is especially significant when considering the coins in the fill. The frequency of this does not suggest accidental loss, but instead a method by which the mourners could feel part of the burial process. A chronological analysis showed no pattern in terms of a shift in position. As there were only 32 burials with the position of the coin noted, a further comparison to the work of Gorecki (1975) was undertaken. Using his catalogue, the same considerations were made, showing that both the datasets follow roughly the same patterns.

As with the other areas studied, the frequency of pierced examples is low. Unusually however, they are all copper alloy. In other areas, silver is most dominant, arguably because the coins have been worn as jewellery and silver coins are more aesthetically pleasing. The copper alloy examples do not appear to be especially significant. The fact that three of the coins come from the same cemetery and were placed in infant burials could indicate a local tradition. These may be included as protection, or representative of a parent giving a part of them to protect the child.

The analysis of the associated grave goods is important as they can help interpret the function of the coin and help assess whether all classes in society observe the custom. When looking at the other grave goods in burials where the coin is pierced, beads are also included. It is possible that the coin belonged on the same jewellery piece, which suggests an aesthetic function. The possibility that the significance of the coin when it is placed in the burial should also be considered. Variety exists in the number and wealth of the grave goods deposited with some containing nothing other than the coin, and others with gold and silver offerings. This suggests that every level is society is observing the custom.

Overall, the patterns in Germany are very similar to what we see in both Italy and Britain; however there are differences when looking closer at individual examples. These could indicate local traditions and something which should be examined as part of future research.

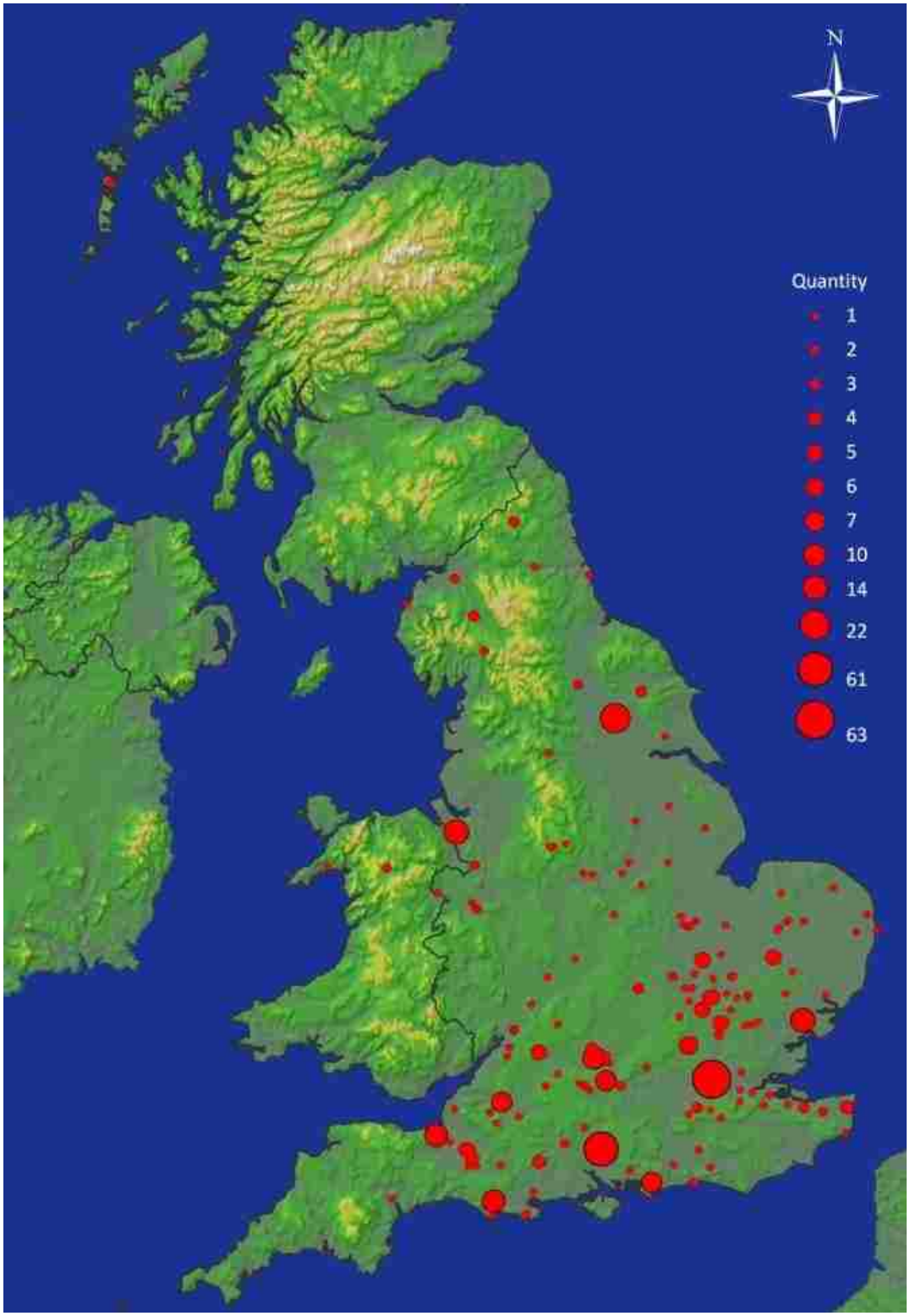

Figure 30: Density map for the cemeteries used in Chapter 6.

6.1 Introduction

Modern Britain has been included in this work to investigate the potential spread of the custom into the north-western extent of the Roman Empire.

This chapter will begin by introducing the dataset used in the analysis in section 6.4, indicating how the cemeteries were selected (see fig. 6 and table 21), the level and quality of the data, the problems with data collection, and how these affected my methodology and results. The aim is to give the reader a clear understanding of the dataset and its potential biases. This is followed by a comparison of the total number of burials in each cemetery to the number containing coins, in an attempt to investigate the frequency of the custom in this region.

Section 6.3 will briefly consider the evidence for coin deposition in pre-Roman burials. This is not intended to be a detailed analysis of all examples, but it is included to illustrate that coin deposition in burials is not a Roman invention. In addition, the custom in this period might possess a particular significance which is transmitted to the practice in the Roman period.

The analysis of the dataset and interpretation of the results is presented in section 6.4. Investigation will follow the methodology outlined in chapter 1, section 1.2. The aim is to thoroughly analyse the coins in the context of the burials, identifying any patterns in coin deposition which can then be compared to the other regions studied in this thesis (see chapter 8).

6.2 The dataset

This section will concentrate specifically on the dataset from modern Britain. For a detailed discussion of the geographical coverage of the current work, the selection of case study areas and problems associated with data analysis, see chapter 1, parts 1.2.3 - 1.2.5.

As with the previous areas, the cemeteries considered in the analysis below were randomly selected from throughout the case study region. It should be noted that the works of Alcock (1980) and Philpott (1991) were the starting point for data

collection, supplemented with more recent excavation reports. The aim was to identify a representative sample of burials containing coins.

This approach resulted in the collection of data from a good range of sites (see fig. 30), although the lack of examples in the area of modern Wales should be taken into consideration. Only two of the sites in this region are included in the database: Penbryn (app. 5: 62) and Caerleon (app. 5: 85); Llanymynech, a town which straddles the border with modern England, is also included in the dataset (app. 5: 176). This should not necessarily be interpreted as an absence of the custom in this area; it could be the result of my random selection of cemeteries.

Where the dataset differs to that of Italy and Germany is in the inclusion of many smaller sets of burials (sites with less than 10 graves in total), where the graves were discovered through construction or agricultural works. Information on finds such as these is abundant within Britain, with detailed descriptions readily available within local archaeological society journals. The sites that contain a small number of burials should not be ignored as they provide valuable data, however, their inclusion can be problematic. For example, when comparing the total number of burials to those containing coins, the smaller sample size often results in a higher percentage of graves with coin offerings (see table 21), potentially misrepresenting the popularity of the practice. This problem could be overcome by using the percentages from larger cemeteries, as they might provide a more accurate indication of the uptake of the custom. In addition, the lower frequency of burials containing coins within cemtery sites (see discussion below) meant that it was necessary to include these smaller sets of burials.

Inclusion of smaller sets of burials also resulted in the incorporation of significantly more sites in the dataset for this region (220) when compared to Germany (20) and Italy (17). It could be argued that the patterns in Britain are more representative of the region as a whole, as the coverage is much more wide-ranging. If the patterns identified in coin deposition in Britain are significantly different to those identified within Italy and Germany, a bias caused by the inclusion of a higher number of sites should be considered.

The level and quality of recording and publication of burials for this region varies significantly depending on the year in which the burial was excavated and published. Pre 1950's publications are often lacking in detail and have a tendency to omit information, especially the age and sex of the grave occupant. This has limited analysis of the connection between the deposition of coins in burials in relation to the sex and age of the deceased; although where this information was available, it was taken into consideration (see pierced coins in section 6.4.6).

A further problem associated with early publications is that they do not always accurately record the total number of burials excavated at the site, as evidenced by the gaps in table 21. For example, at Alington Avenue in Dorchester "several" burials were excavated, and at Hassocks in Sompting, an urnfield was dug which contained "many" burials (app. 5: 50 and 210). This affects the analysis of the frequency of the custom.

After Clarke's publication of Lankhills cemetery in 1979 (Clarke 1979), the benefits of including large databases of burial information were realised, with subsequent works often containing detailed appendices. These comprehensive catalogues have been invaluable in providing the foundation for this thesis, balancing out the lack of data from earlier sources.

Data collection resulted in the gathering of information from 220 sites, totalling 455 burials containing 781 coins (table 30; appendix 5).

Percentage and location of burials containing coins

The problems associated with collecting data on cemeteries and burials which do not contain coins, as well as those which do, have been thoroughly discussed in chapter 4, section 4.1. It was determined that collection of this information was not possible in the scope of this work; instead, the total number of coins per cemetery was recorded, giving an indication of the occurrence of this custom.

Table 21 summarises the main details for the cemeteries/ burials included in the dataset. As with the previous regions, it outlines the total number of burials in the cemetery, the number containing coins, the percentage of burials containing coins, and the site type (urban, rural and fort). The ID reference numbers correspond to the database in appendix 5 (where the references can also be found). It should be noted that 'urban' is used to describe burials/ cemeteries within a Roman settlement (or closely associated with one) and rural sites include burials in the vicinity of villas. Where the total number of coins in the cemetery is unknown (c. 20% of the sites), this fact is recorded in the table.

ID reference	Site	No of burials	No with coins	%	Site type and notes
1	Russell Street, Bath (*Aquae sulis)*	3?	1	33.3	Urban; related to the city of bath
2	Combe Down, Monkton Combe	5	1	20	Urban; villa site
3	Lambridge, Bath (*Aquae sulis)*	Unknown	1	?	Urban; related to the city of Bath
4	Landsdown Estate, Bath (*Aquae sulis)*	3?	1	33.3	Urban; related to the city of Bath
5	Paulton	1	1	100	Urban, in building
6	Bathwick Hill, Bath (*Aquae sulis)*	35	2	5.7	Urban; south of the river Avon
7	Fosse Way, Bath (*Aquae sulis)*	20	1	5	Urban; to the north-east of the city
8	Bletsoe	50	2	4	Rural; 8 miles south of the small Roman town of Irchester
9	Galley Hill, Streatley	2	1	50	Rural; 6km north of Luton Town Hall in Bedfordshire
10	Shefford	2	1	50	Rural; only 2 barrows
11	Tower Hill, Sandy	5	1	20	Urban, small town; cemetery located to the west of the Roman settlement
12	Willington	1	1	100	Rural; random discovery in a field
13	East Garston	1	1	100	Rural; random discovery in field
14	Hampstead Norris	1	1	100	Rural; discovered by workmen when digging field drains
15	Long Wittenham	Unknown	1	?	Urban; linked to Roman town?
16	Rams Hill, Uffington	2	1	50	Rural; 2 burials in Roman rectangular ditch, possibly associated with a timber building
17	Roden Downs, Compton	10	7	70	Rural; evidence for a Roman 'farm'

18	Shooter's Hill, Pangbourne	6	2	33.3	Rural
19	Warren Farm, Lambourn	3	1	33.3	Rural
20	Welford	Unknown	1	?	
21	Alwalton	11	1	9	Rural
22	Arms Hill	3	1	33.3	Rural; one mile to the east of the Roman road from Braughing to Godmanchester
23	Cambridge *(Durolipons)*	Unknown	1	?	Urban
24	Earith	1	1	100	Rural
25	Eaton Ford, St. Neots	3	1	33.3	Rural; 3 burials found on farmland. Could be part of a settlement which has not been excavated
26	Emmanuel Knoll, Godmanchester *(Durovigutum)*	1	1	100	Rural; a single barrow on the south side of the Roman road from Godmanchester to Cambridge
27	Godmanchester *(Durovigutum)*	Unknown	1	?	Urban?
28	Guilden Morden	151	2	1.3	Urban
29	Huntingdon	1	1	100	Rural; identified during construction works
30	Litlington	Unknown	2	?	Rural; although the foundations for a Roman wall were identified on the site
31	March	Unknown	1	?	
32	Nun's Bridge, Godmanchester *(Durovigutum)*	1	1	100	Rural
33	Orton Waterville	1	1	100	Rural; found during the excavation of a villa
34	Peterborough	40	1	2.5	Urban; close to settlement
35	Southorpe	Unknown	1	?	Rural
36	Water Newton	Unknown	1	?	

37	Chester	Unknown	1	?	Grosvenor Museum Acquisition, provenance unknown
38	Ebury Place, Chester *(Castra Deva)*	1	1	100	Urban
39	Infirmary field, Chester	29	9	31	Urban
40	Liverpool Road Chester	Unkown	1	?	Grosvenor Museum Acquisition; provenance unknown
41	Roodeye, Chester *(Deva)*	1	1	100	Cemetery located on a bank overlooking Roodeye. Rescue excavation during building works. Two skeletons in one grave.
42	Brougham	292	3	1	Military; To east of fort and *vicus*
43	London Road, Carlisle *(Luguvalium)*	3+	2	66.6±	Urban; at edge of city limits
44	Low Borrowbridge, near Tebay	87	2	2.3	Rural; identified during the building of a pipeline
45	Maryport *(Alvana)*	1	1	100	Urban; within a structure
46	Ockbrook, Borrowash	Unknown	1	?	Rural, during the building of a railway line
47	Open cemetery, Derby racecourse	Unknown	1	?	Urban
48	NE of Mining Low, Aldwark	1	1	100	Rural
49	Exeter *(Isca Dummoniorum)*	2+	1	50	Military site; exact number of burials not noted
50	Alington Avenue, Dorchester *(Durnovaria)*	Unknown	1	?	Urban; not well recorded
51	Bokerley	Unknown	2	?	Rural
52	Church Knolle	2	1	50	Rural
53	Cogdean, Corfe Mullen	1?	1	100?	Rural
54	Fordington Hill, Dorchester	50+	1	2	Rural

55	Kimmeridge	2	1	50	Rural; coastal site
56	Melcombe Horsey	2	1	50	Rural; Barrow
57	Poundbury, Dorchester *(Durnovaria)*	33	1	3	Urban?
58	Stalbridge	Unknown	1	?	Rural
59	Weymouth Avenue, Dorchester *(Durnovaria)*	8+	1	12.5±	Urban
60	Woodyates	Unknown	4	?	
61	Wyke Reservoir, Weymouth	9	1	11.1	Rural
62	Penbryn	Unknown	1	?	Carmarthen Museum Acquisition; provenance unknown
63	Bartlow Hills, Ashdon	4	2	50	Rural; but described as close to the town of Chesterford *(Icianos)*
64	Butt Road, Colchester	630	8	0.1	Urban; this is the total number excavated over many years
65	Cemetery II, Mucking, Thurrock	30	1	3.3	Rural; cropmark site
66	Colchester *(Camulodunum)*	1	1	100	Urban; identified during gas works
67	E of the station Colchester *(Camulodunum)*	1	1	100	Urban; found during building of railway
68	Great Chesterford	18	1	5.6	Rural
69	Great Dunmow	19	1	5.3	Urban, Roman settlement on road from Chester
70	Hornchurch	1	1	100	Rural, although possible evidence for a settlement
71	Joslin Collection, Colchester *(Camulodunum)*	108	4	3.7	Urban
72	Stebbing	1+	1	100?	Rural; discovered during agricultural works

73	Takely	1	1	100	Urban; found in gravel pit
74	177 Barnwood Road	Unknown	1	?	Urban; during construction
75	Barton, Gloucester *(Glevum Colonia)*	9	1	11.1	Urban; during construction
76	Bath gate cemetery, Cirencester *(Corinium Dobunnorum)*	427	2 (including no. 80)	0.5	Urban
77	Gloucester *(Camulodunum)*	11	1	9.1	Urban; recovered during work on St Margaret's Hospital
78	Hetty Peglar's Tump, Uley	2	1	50	Rural; barrow
79	Kings Stanley	2	1	50	Rural
80	Lavender House, Cirencester *(Corinium Dobunnorum)*	See no. 76	1		Urban
81	Lower Slaughter	1	1	100	Rural; accidental find in gravel pit
82	No. 124 London Road, Wooten	7	1	14.3	Rural, but on a main road
83	Querns Hospital, Cirencester *(Corinium Dobunnorum)*	2	1	50	Urban
84	Wycombe	1+	1	100±	Unknown, site mentioned in passing
85	Caerleon *(Isca Augusta)*	Unknown	1	?	Military site; early excavation did not note the number of burials excavated
86	Portway Industrial Estate, Andover	15	1	6.7	Urban
87	Cattle Market, Winchester *(Venta Belgarum)*	1	1	100	Urban; early finds close to Lankhills
88	Highfield Lodge (W of), Winchester *(Venta Belgarum)*	1	1	100	Urban; early finds in the vicinity of Lankhills
89	Hyde Street, Winchester *(Venta Belgarum)*	23	3	13	Urban

90	Lankhills, Winchester *(Venta Belgarum)*	473	51	10.8	Urban; discovered during building works on a school
91	Milland, Winchester *(Venta Belgarum)*	1+	1	100±	Urban; c.40 vessels found by workmen, only 1 confirmed burial
92	Slope of St, Giles, Winchester *(Venta Belgarum)*	9	1	11.1	Rural; to east of town
93	Snells corner, Horndean	33	1	3	Rural
94	St. James's Lane, Winchester *(Venta Belgarum)*	Unknown	1	?	Urban
95	St. Johns Street, Winchester *(Venta Belgarum)*	6+	1	16.7	Rural; several scattered skeletons and 5 cremations
96	Winchester *(Venta Belgarum)*	1	1	100	Urban; find dating to 1877
97	Bredon Hill, Conderton	6	1	16.7	Rural
98	Baldock	309	1	0.32	Rural
99	Fowlmere	30	1	3.3	Rural; barrow
100	Litlington	12	3	25	
101	Pinnocks Lane, Baldock	Unknown	1	?	Rural
102	Skeleton Green, Puckleridge	57	5	8.7	Urban; close to a Roman town
103	St Albans *(Verulamiun)*	Unknown	1		Urban
104	St. Stephens, St Albans *(Verulamiun)*	Unknown	6		Urban
105	The Tene, Baldock	21	1	4.8	Urban; although ploughing has destroyed a lot of the building evidence

106	Verulam Hills Field, St Albans *(Verulamiun)*	15	4	26.7	Urban
107	Walls Field, Baldock	Unknown	2	?	Rural
108	Ware	3	1	33.3	Urban
109	Walking Wold	1	1	100	Rural
110	Borden	1	1	100	Rural; related to a structure
111	Cranmer House, London Road, Canterbury *(Durovernum Cantiacorum)*	53	1	1.9	Urban
112	Dover *(Dubris)*	1	1	100	Urban; chance find during works on Market Square
113	East Hill, Dartford	Unknown	1	?	Rural; although might be connected to a town
114	Frindsbury	6	1	16.7	Rural
115	Holborough, snodland	4	1	25	Rural; barrow
116	Lullingstone	1	1	100	Rural; infant burial under the floor of the villa
117	Martyrs' Field, Canterbury	Unknown	1	?	Rural
118	Ospringe, Kent	240	3	1.3	Close to Roman camp
119	Potters Corner, Ashford	1	1	100	Rural
120	Richborough *(Rutupiae)*	Unknown	1	?	Military site
121	Richborough Castle *(Rutupiae)*	2	1	50	Military site
122	Springhead, Southfleet	14	1	7.1	Temple ditch site; rural
123	Goadby marwood	2	1	50	Urban; bodies discovered in a well, stones thrown in afterwards
124	Millstone Lane/ Marble Street, Leicester *(Ratae Corieltauvorum)*	5	1	20	Urban

125	Ancaster	71	1	1.4	Fort
126	The Wong, horncastle	2	1	50	Urban; Roman walled site
127	West Firsby, Hackthorn	Unknown	1	?	
128	201 Bishopgate *(Londinium)*	6	1	16.7	Urban
129	28-29 West Teneter Street, 59 Mansell Street *(Londinium)*	851	70 (total)	8.2	Urban, sites identified during rescue excavations
130	31-43 Mansell Street, 1015 Alie Street *(Londinium)*	See no. 129	2		Urban
131	49-50 Mansell *(Londinium)* Street	Unknown – pers com Jenny Hall	1	?	Urban
132	49-59 Mansell Street, 2-8 Alie Street, 29-31 West Tenter Street *(Londinium)*	See no. 129	15		Urban
133	9 St. Clare Street *(Londinium)*	See no. 129	4		Urban
134	Armagh Road, Old Ford *(Londinium)*	See no. 129	1		Urban
135	Atlantic House	48	1	2.08	Urban
136	Borough High Street, Southwark	Unknown	1	?	Urban
137	Bow Lane, Southwark	1	1	100	Urban
138	Courage Brewey Site, Southwark	Unknown	1	?	Urban
139	Hooper Street *(Londinium)*	See no. 129	11		Urban

140	Leman Street/ Great Prescott Street	13	1	7.7	Urban
141	Minories	6	1	16.7	Urban
142	Moorfields	1	1	100	Urban; museum acquisition
143	New Oxford Street	1	1	100	Urban; early find dating to 1874
144	St. Bartholomew's Hospital	20	3	15	Rural; outside the Roman city limits
145	St Michaels, crooked Lane	2	1	50	Urban; found near London Bridge
146	Warwick Square	1	1	100	Urban; museum acquisition
147	West Tenter Street	134	11	8.2	Urban
148	Backhouse's Gardens, York	Unknown	1	?	Urban
149	Baile Hill, York *(Eburacum)*	5	1	20	Urban; south of the town
150	Bootham, York *(Eburacum)*	1	1	100	Urban; chance discovery during railway excavations
151	Clementhorpe, York *(Eburacum)*	2+	1	50±	Urban; "several burials"
152	Malton	11	3	27.3	Close to fort and *vicus*, but no evidence they were connected
153	Norton	1	1	100	Fort and *vicus* in the area, although the fort is much earlier than the coin (Robinson 1978, 6-8)
154	Railway Station Cemetery, York *(Eburacum)*	27	5	18.5	Urban
155	The Mount, York *(Eburacum)*	2	1	50	Urban; found in front garden of a house during renovation
156	The Ridings, Norton	26	1	3.8	Urban; revealed through building works

157	Trentholme Drive, York *(Eburacum)*	12+	12	?	Urban
158	Walmgate, York *(Eburacum)*	2	1	50	Urban
159	Brampton	1	1	100	Rural
160	Geldeston	1	1	100	Rural
161	Ickburgh	1	1	100	Rural
162	Little Ellingham	Unknown	1	?	Rural
163	Mundford	Unknown	1	?	Rural
164	Stanley Avenue, Oakwood Norwich	Unknown	1		Urban?
165	Threxton	1	1	100	Rural; accidental find
166	Ashton	Philpott pers com			
167	Petty Knowes, High Rochester	15	3	20	Fort?; located 400m to the south of outpost fort at High Rochester
168	Shorden Brae, Corbridge *(Coria)*	1?	1	100?	Rural; interpreted as a Roman stone-built mausoleum
169	Askham	1	1	100	Rural; found during railway building
170	Cotgrave	4	1	25	Urban; found on the line of the Fosse Way
171	*Margidnum*, East Bridgeford	10	1	10	Fort
172	Barrow Hills, Radley	3	2	66.6	Rural; barrow
173	Frilford	Unknown	10	?	Urban?; religious site, long-lived settlement site, evidence of IA
174	Stanton Harcourt	120	3	2.5	Rural; although cropmarks are notes (the date and origin are unclear.
175	The Vineyard, Abingdon	3	1	33.3	Urban; linked to a settlement with IA origins
176	Llanymynech	1	1	100	Rural

177	Attingham	1	1	100	Rural; discovered during ploughing
178	Norton, Wroxeter	1?	1	100±	Rural?
179	Queensway, Whitchurch *(Mediolanum)*	1	1	100	Urban
180	Whitchurch *(Mediolanum)*	6	1	16.6	Auxillary fort from AD 75 but burials date to later civilian settlement
181	Wroxeter	1	1	100	Rural; discovered during ploughing
182	Banwell	1	1	100	Rural; accidental find
183	Bradley Hill, Somerton	55	5	9.1	Rural; farmstead site
184	Cannington	419	8	1.9	Rural, although located to the north-west of Roman Ilchester
185	Ham Hill, Montacute	9	1	11.1	Urban; Romano-British village
186	Ilchester *(Lindinis)*	Unknown	1	?	Urban; excavated in 1905
187	Larkhil, Yeovil	1	1	100	Rural
188	Little Spittle, Ilchester *(Lindinis)*	42	3	7.14	Urban
189	Westonzoyland	5	1	20	Rural
190	Alstonfield	1	1	100	Rural; barrow
191	Wetton	1	1	100	Urban; found with remains of Romano-British village
192	Bloodmore Hill, Lowerstoft	1	1	100	Rural; barrow
193	Burgh Castle	Unknown	1	?	Rural
194	Dales Road, Ipswich	6+	1	16.7	Rural?
195	Eastlow Hill, Rougham	Unknown	1	?	Rural?
196	Icklingham	41	1	2.4	Rural cemetery

197	Long Melford	1	1	100	Rural
198	Coulsdon	Unknown	1	?	
199	Epsom	3	3	100	Rural; burials donated to the museum, possible there were more without goods?
200	Fetcham	26	1	3.8	
201	Oxted	3	1	33.3	Rural
202	Fulwell Hills, Monkwearmouth	1	1	100	Rural; isolated find during quarrying
203	Eastgate, Chichester *(Noviomagus Cantiacorum)*	4+	1	25±	Urban
204	Lancing Ring	13	1	7.7	Rural
205	Plummer's Plain	1	1	100	Early find; reported 1854
206	Magson House, Halifax	1	1	100	Rural; single find, not part of a cemetery
207	Densworth, Funtington	1	1	100	Rural
208	Hardham	2	1	50	Cemetery at a roman camp; rescue excavation
209	Hassocks	Unknown	1	?	Rural; cemetery but close to a villa. Author notes it is an urnfield but does not give the number of burials
210	Marquis of Granby, Sompting	1	1	100	Rural
211	St. Pancras, Chichester	391	6	1.5	Urban
212	Glasshouse Wood, Kenilwood	Unknown	1	?	
213	Priory Road, Alcester	Unknown	1	?	Urban
214	Broad Town Field, Clyffe Pypard	1	1	100	Rural; disturbed by workmen in 1859
215	Cemetery A, Nettleton Scrubb	15	1	6.66	Urban
216	Cemetery C, Nettleton Scrubb	8+	1	12.5±	Urban

217	Heywood	4	1	25	Urban; found in a well linked to a Romano-British settlement
218	Lyncroft Estate, Wanborough	11	1	9.1	Rural; found during building work
219	Westrop House, Highworth	1	1	100	Rural
220	Winterbourne Down	50	1	2	Rural; possibly linked to earthworks

Table 21: Table summarising the cemeteries considered in this chapter (appendix 5)

The information in table 21 can be used to identify the frequency of the deposition of coins in burials within the cemeteries of Britain. It shows that number of burials containing coins varies widely, between 0.1 and 100% of the total per cemetery. As discussed above, the latter in this range might be the result of the inclusion of the smaller sets of burials. To try to minimise the bias, only those sites within the database with a larger number of burials (over 10) are considered, it is hoped that they will be more representative of the actual frequency of the custom. This significantly changes the range showing that between 0.1% and 5% of the total number of burials contain coins. If this range is indicative of the frequency of the custom, it is far less common than in Italy and Germany. It is tempting to argue that the custom is less popular the further one radiates away from Rome, although this is speculative.

Given the large number of sites included in the database, it was necessary to represent the distribution of burials in coins in a density map. The map (fig. 30) shows that geographically the burials tend to cluster around the Roman towns and cities, (such as London and York) which is to be expected since these were the population centres. On-going construction projects in these areas leads to the discovery of more archaeological sites, adding to the number of burials centred in the towns. The possibility that there is an over-representation of burials containing coins in urban areas should be considered.

Once again no connection can be made between the site type and number of coins in burials. It corroborates what has been seen in the other regions, that coins are deposited in both rural and urban contexts. Unlike Italy and Germany, however, six sites were identified as connected to the military: Brougham, Ancaster, Margidnum, Exeter and Caerleon and Richborough (app. 5: 42, 125, 171, 49, 85, and 121). The percentage of burials containing coins at these sites is relatively low, ranging between 1 and 50%, perhaps suggesting that the custom is not as popular with the military community. This hypothesis is entirely speculative and requires the careful consideration of many more fort sites to confirm.

6.3 Pre-Roman burials containing coins

Before examining the more substantial Roman cemetery data, it is necessary to discuss the possible pre-conquest examples. As these are rare (only three examples), each will be discussed in turn, to identify if they do represent an independent development of this custom, prior to Roman contact.

Before looking at the burials specifically, there are a number of problems which should be taken into account. All of the burials have been uncovered during very early excavations, limiting the amount of detail currently available for study – specifically the osteological and numismatic information. It is also difficult to assess the reliability of the analysis of the grave goods, leading to a great deal of speculation as to the date of all the burials discussed.

The first example is Grave P.5 from Maiden Castle in Winterbourne in Dorset. This was an inhumation of a female, aged 20 to 30, which is thought to date to c. 44AD and contained a bronze Durotrigian coin. There is no mention of other grave goods but the coin was noted as worn, suggesting that it was in general circulation before it was placed in the grave (Whimster 1981, 266).

The second example is an inhumation from Jordan Hill in Dorset. The coin came from a burial mound, or possibly a cemetery, that was excavated in 1843 and contained two or three burnt coins of Constans or Constantine, a coin of Allectus and a small British coin (Warne 1872, 233; Whimster 1981, 260). Warne does not discuss individual burials but does remark that no coin can be associated with a specific burial, making interpretation difficult (Warne 1872, 233).

Dating for these burials is also a problem. Although the presence of a silver Durotrigian coin is noted, the other grave goods in the assemblage, such as the other coins, date significantly later to the 3rd and 4th centuries AD (Whimster 1981, 260). This evidence suggests that the burials are post-conquest in date. As will be demonstrated later in this chapter, the practice is well-established by the 3rd and 4th centuries AD, and this collection of burials cannot be considered as evidence for the pre-Roman placement of coins in burials

A British coin was also found in Grave 3 (feature A 461) from Baldock in Hertfordshire, which has been dated to the early to mid-1st century AD. The cremated bones of the occupant were placed in a pot and on the surface of this, in the fill, were a fragment of burnt clay daub and a bronze coin of Cunobelin (Stead and Rigby 1986, 61). The possibility that the grave goods in the fill are not associated with the burial is considered by the authors. This point is less of a problem. As will be discussed in 5.4.5, coins in the fill are not unusual and could be attributed to mourners throwing them at the end of the funeral. Given the inclusion of a coin of Cunobelin, it is likely this burial dates post-conquest.

Grave 317 was a double cremation of an adult and a youth from King Harry Lane, Verulamium, dated to between 1 and 40 AD. The grave contained ten copper alloy coins of Tasciovanus, three of which were placed on a platter; the location of the others is unknown. A brooch was also found in this burial (Whimster 1981, 375).

The presence of more than one coin is unusual and has been discussed at length by Allen (1958). He hypothesises that that the inclusion of ten coins was intended to be representative of a *denarius* (made up of ten *asses*); although he does concede that by the date of this burial there were 16 *asses* to the *denarius* (Allen 1958, 4). This is however extremely speculative and the number of coins could be linked to the status of the deceased and/or their family.

In summary, it is difficult to date any of the above burials to the pre-Roman period, giving no clear evidence for pre-conquest placement of coins in burials in Britain. The majority of the examples are dated to around 44 AD and therefore after contact with the Roman world. Unlike the other regions studied, where coin offerings in burials can be clearly seen before direct contact with the Romans, Britain does not seem to have placed coins in burials before this. It is possible that the coins have replaced an earlier form of payment, but this cannot be confirmed in this work. In discussing early contact with the Roman world, Creighton observes that the elite "adopted new burial rites", it is possible that the deposition of coins in burials is part of this (Creighton 2006, 19).

Looking specifically at the burials, not enough evidence exists to base interpretation on the sex and age of the deceased. Only grave P5 from Maiden Castle has the sex noted and it is a female burial. This is different to the earliest practice in Italy where the custom can be linked to the male warrior class (see Chapter 4).

The rarity of the custom suggests it is an elite practice, although this is difficult to confirm. Few other offerings are deposited in the burials, normally a brooch or a pottery vessel; the only exception is/are the burial(s) from Jordan Hill which contained c. 80 pottery vessels, including Samian ware and glazed beakers, bronze armlets, Romano-British bronze brooches, iron spears, iron knives and a bronze mirror handle (Whimster 1981, 260). Since these goods have not been assigned to a single burial or time period, they cannot be used to interpret status. If the coins are imitation of the Roman practice, their inclusion may be intended to show Roman contact.

Interpreting the function of the coins is challenging. It could be a method by which the deceased and the family is illustrating contacts with Rome. They could also be seen as provision for the afterlife, perhaps the evolution of an earlier form of payment. A survey of Iron Age grave goods would be required to confirm this however. What is certain is that the practice is unlikely to be linked to the payment of any deity, especially Charon.

6.4 The Scottish burial

The burials in the database are almost entirely confined to the area of modern England, except for one from Benbecula in the Western Isles. As this burial is beyond the imperial boundaries, it has not been included in the main analysis, although its existence should be noted.

The most complete record of the burial was published in the 'Shrewsbury Chronicle' in August of 1808:

"...there was found in a bank of sand, deeply interred, a human skeleton, in a high state of preservation. It was in a sitting posture, holding in its right hand the handle

of a sword. On digging a little deeper, there were discovered the fragments of a Roman urn, with a few pieces of silver coinage, bearing a strong resemblance to those of the emperor Severus (presumably one of the Severus Emperors)…" (app. 5: 221.1)

The lack of information makes interpretation difficult. The uncertainty in the classification of the objects as coins, suggests that they were not thoroughly studied and identified at the time. The presence of the sword and Roman pottery fragments means that this could be either the burial of a Roman, or, more likely, a local who served as a mercenary. Without the artefacts for study, it is impossible to date to the grave, although the inclusion of weaponry would support it belongs to the Roman Iron Age.

If the grave did indeed contain coins, the function of these is unknown, but if the individual had close contact with the Roman world, it is possible that the custom was observed. If it is a burial of a local mercenary serving in the Roman military, it may be a method by which the deceased could show affiliation with Rome.

Coin hoards dating to the Severan period are not particularly unusual in Scotland. Geographically, hoards occur from as far south as Dumfries and Galloway (probably associated with the Roman sites in that area) to as far north as Aberdeenshire, and even one example from Lingrow on Orkney (Hunter 2007, 215, 223, 224). The earliest of the hoards from Glamis in Angus and Wauchope Bridge in Dumfries, include coins that give a *terminus post quem* of AD 68-69. The coins in the Scottish hoards date up to the end of the reign of Elagabalus c. AD 222, with examples found at Edston in Peebles and East Wemyss in Fife (Hunter 2007, 223, 224). This evidence shows that coins circulated north of the border, although there was no monetary economy, and it is entirely plausible that the coins in this burial date to the Severan period.

If one looks specifically at the grave goods, the argument could be made that the inclusion of the sword in the grave may indicate the warrior status of the deceased. If this is the case, then it could be hypothesised that the individual served as a

mercenary in the Roman army. Mercenaries are known to have been used in the Roman armies; it has even been argued that it was exposure to coinage in the army that led to the creation of native British coinage (de Jersey 1996, 6). Without osteological analysis, the age of the individual is not known but it could be hypothesised that he may have retired and returned to his home when he had finished.

Overall, it is possible that this is a genuine find of Roman coins in a Scottish burial, but it cannot be confirmed. The early excavation of the remains and consequent lack of published information makes analysis difficult and confines interpretation to speculation. What can be argued from the presence of the sword and the other Roman period items is that this individual could have been a native mercenary serving in the Roman army. However, without the date of the burial, it is equally as possible that this is a much later grave, if indeed the letter can be trusted as legitimate. However, the fact still remains that we cannot even be sure that the coin was part of the burial. As with many of the early excavations (e.g. Potters Corner, app. 5: 119.1), there is often insufficient evidence to confirm whether or not a coin was found in direct association with the burial or if it was simply found in the same area. Therefore, the likelihood that this is a random site find should also be considered.

6.5 Coins in Roman imperial burials

The evidence in section 5.2 has shown that the deposition of coins in burials is a rarity in the pre-Roman period; but how does this change under Roman occupation?

6.5.1 Chronological distribution of burials containing coins

The chronological distribution of burials containing coins was examined to investigate how the custom changed over time. As with the burials in the other case study areas, they are not dated to a single year; date ranges of up to 200 years have been used. Where this occurs, the mid-point of the burial date is used to determine the category; although this could mean that some burials are considered in the wrong group.

To minimise any possible bias which could be produced by placing burials into the wrong category, two graphs were created. The first (figure 30) considers the burials by date in 100-year ranges, meaning that more of the burials would be placed in the correct group. The second graph (figure 31) looks more closely at the data by dividing the burials into 50-year date ranges. Although a number of the burials could be placed in the wrong category, it can be used to test the patterns in the first date and give a more detailed picture of the distribution.

100-year date ranges

Figure 31 shows the burials divided by date into the 100-year date ranges. It should be noted that 'BC' refers to the early imperial period and does not include the Iron Age burials:

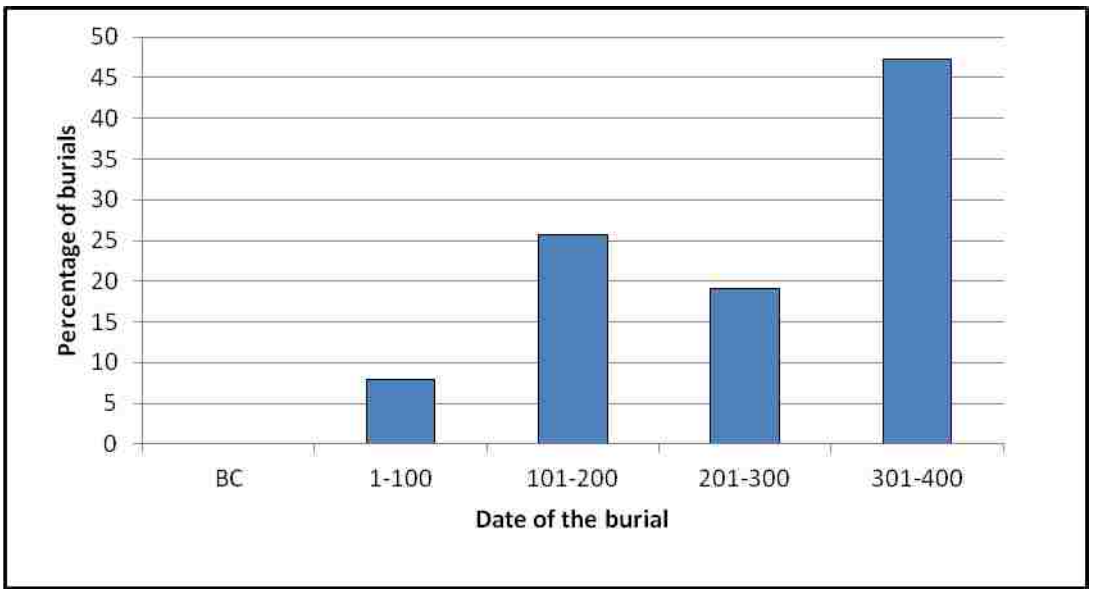

Figure 31: Graph showing the burials with coins divided by date into 100-year ranges (references: app. 5)

The results show an interesting pattern in the data with two periods where the custom is more prevalent. There are no examples from burials dating the earliest imperial period. This is to be expected given that Iron Age examples discussed above, date to the middle of the 1st century AD. It supports the theory that the custom is brought to Britain by the Romans. The practice continues to increase in popularity from 7.9% in the second half of the 1st century to its first peak at the end of the 2nd century AD at 25.7%. The burials then drop to 19.1% at the second half of the 3rd century. As will

be discussed in more detail in Chapter 8, this is a trend which can be observed in each of the regions studied. Most notable perhaps is the resurgence of the practice in the 4th century where it increased to 47.3%.

50-year date ranges

Figure 32 shows the distribution of the burials divided into the 50-year date ranges. It should again be noted that the term 'BC' refers to the early imperial period.

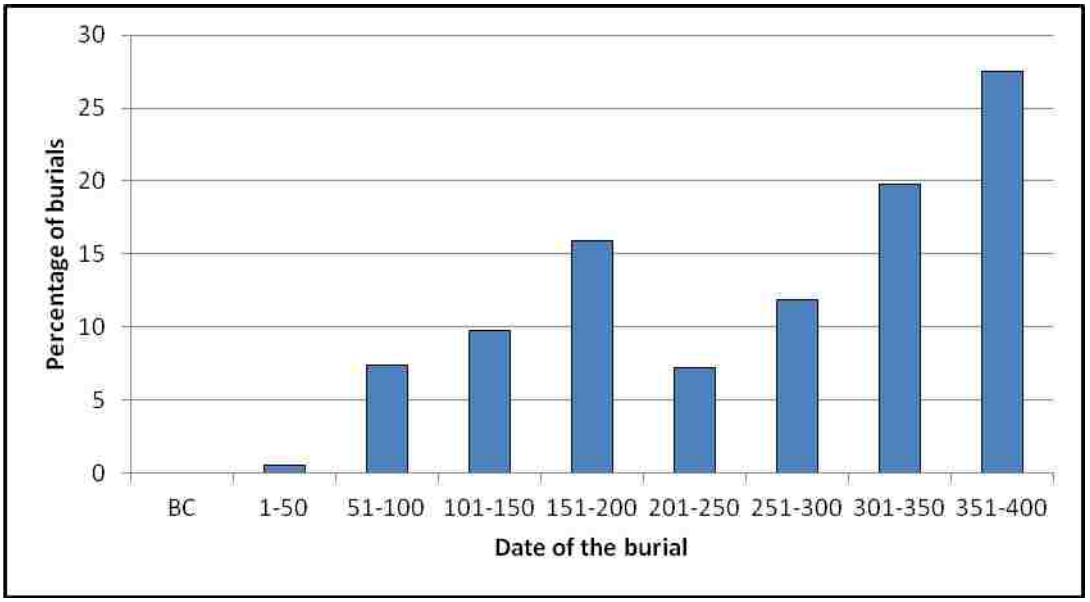

Figure 32: Graph showing the burials with coins divided by date into 50-year ranges (references: app. 5)

The graph follows the same pattern as figure 1, suggesting that the placement of coins in the wrong category has had little effect on the overall outcome. It shows a more gradual uptake of the custom, from 0.5% in the first half of the 1st century to reach a peak of 15.9% in the second half of the 2nd century AD. A decline in practice can be observed in the first half of the 3rd century to 7.2%. After this initial drop, there appears to be a resurgence in the practice; increasing from 11.9% at the end of the 3rd century to 19.8% in the first half of the 4th century and 27.5% at the end of the 4th century AD.

There are a number of possible explanations for the increase in the practice Britain in the 4th century AD. It is possible that a larger number of later cemeteries have been

excavated, although examination of the dates of all Roman cemeteries in Britain would be required to confirm this. However, with close to half of the burials with coins dating to this period, excavation bias cannot entirely account for such a high percentage. The dating coincides with the end of Roman rule in Britain; perhaps this was a way that the people could still feel like they were Roman. Cleary draws attention to demonetarisation of Britain with no new coins shipped into Britain after 402 AD (Cleary 1989, 93), is it possible that coins were seen as more expendable at this time? Interestingly, a 4th century AD peak is also seen in coins deposited in springs, such as at Bath (Walker 1988, 306-308; Sauer 2011, 521).

Conclusion

In summary, the chronological analysis does show a link between the practice and Roman occupation. This can be seen through the introduction and growth of the practice almost immediately after Roman occupation. Most notable in this analysis is the resurgence of the custom in the 4th century. This is not a trend which is identified in the other case study regions. Explanation is difficult, but the dating appears related to the breakdown of Roman rule in Britain. Observation of the custom could be a way by which the local populations felt part of Roman society or could reflect the breakdown of the economy and demonetarisation of area, a theory which needs investigation. This is purely speculative and it would be necessary to examine the custom in 5th century burials to investigate how the practice changes after Roman coins stop being imported.

6.5.2 Comparison between the mint date of the coin and the burial date

The comparison between the mint date of the coins and the date of the burials is intended to investigate the length of time that the coin was in circulation, before being deposited in the grave.

The database contains information on the coin and burial date for 319 burials (app. 5).

Figure 33 shows the number of years that the coins have been in circulation before they were deposited in the burial. For ease of interpretation, they have been divided

into 25 year date ranges up to 100 years; then divided into burials which contained coins minted over 100 and 200 years.

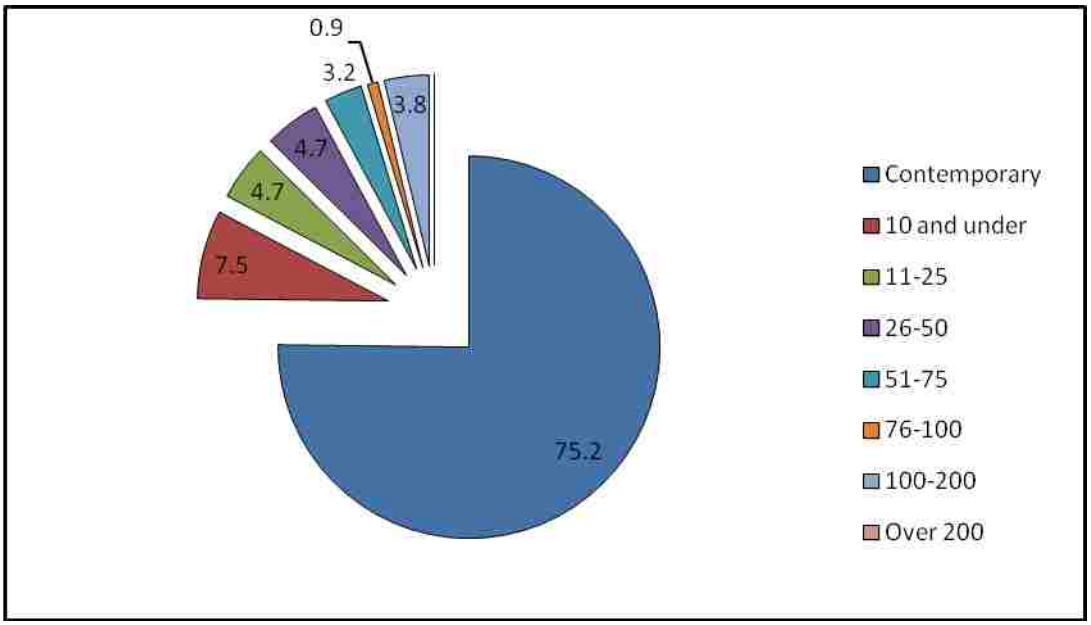

Figure 33: Chart showing the circulation period of the coins before being placed in burials (references: app. 5)

The results show that the majority of the coins date contemporary with the burials (75.2%). Coins deposited within 10 years of minting, could also be considered contemporary, which raises this percentage to c. 83%. Burials containing coins minted between 11 and 100 years before placed in the burial are significantly less at 16.5%. Even fewer are those burials which contain coins minted over 100 years before the burial, only 3.8% and there are no examples containing coins in circulation for over 200 years.

As mentioned above, the use of the coin to date the burial could cause a higher percentage of coins contemporary with the date of the burial; although this cannot account for every example. Given the evidence above, it seems likely that coins are being taken from general circulation with little or no consideration of their mint date. It was the act of depositing the coin that was important, not the specific example used.

Coins in circulation for over 100 years

As the circulation period of Roman coins is largely unknown, this work does not consider those which predate the burial by up to 100 years unusual. However, 12 out of the 319 (3.8%) have significantly longer circulation periods. Due to their rarity, they will be analysed individually; are they evidence for specific coin choice?

Table 22 gives the details of those burials containing coins which pre-date the burial by at least 100 years. The coin details given are those of the earliest datable coin.

Burial	Sex/age	Burial date	Mint date of coin	Pierced (Y/N)	Denomination	No. of years	Grave goods	Reference
West Tenter Street, London (291)	Female (19-25)	AD 300-400	AD 199-200	N	Denarius of Caracalla (RIC 32)	100	9 other coins, silver, iron and copper alloy jewellery, 3 intaglios, a silver foil sheet, a jet bead and an emerald bead	app. 5: 132.1
Butt Road, Colchester (503)	Infant	AD 320-400	AD 217-218	Y	Unknown Diadumenian	100	2 bead necklaces (163 and 23 beads), 6 bead bracelet (with copper alloy disc, finger-ring and coin), 1 shale and 4 jet armlets	app. 5: 64.7
Icklingham, Suffolk (2)	Male	AD 375-400	AD 260-274	N	Antoninianus Gallienus	100	3 other coins	app. 5: 196.1
Icklingham, Suffolk (6)	Male (adult)	AD 340-360	AD 260-68	N	Unknown Gallienus	100	4 other coins	app. 5: 196.3
St Stephens, St Albans	Child	AD 50-75	55-54 BC	N	Denarius Unknown	100	Urn, casket fittings: 9 lion-headed studs, 14 copper alloy rings, hasp and lock plate	app. 5: 104.5
St Pancras, Chichester (228)	Female (?)	AD 175-225	AD 54-68	Y	Copper alloy Nero	100	Ceramic vessels, 8 bone needles, copper alloy needle, cosmetic and toilet instruments, bone toggle, 2 brooches, pierced canine tooth, 5 beads, copper alloy pin, glass beaker, cup handle, iron bracket	app. 5: 211.5
Askham	-	AD 75-100	49-44 BC	N	Denarius? Julius Caesar	100	Urn	app. 5: 169.1
Trentholme Drive, York (196)	Male (13-14)	AD 175-250	AD 73	N	Unknown Domitian as Caesar	102	None	app. 5: 157.8
West Tenter Street, London (B402)	Female (26-45)	AD 250-300	AD 98-117	N	Sestertius Trajan	130	None	app. 5: 132.6
Brougham (99)	Child (0-18)	AD 240-270	AD 84-89	N	Dupondius Domitian	150	Iron nail, bone veneer, ceramic fragments (some imported east Gaulish)	app. 5: 42.1
Butt Road, Colchester (278)	-	AD 218-400	AD 41-54	Y	Denarius Claudius (RIC 66)	150	2 other coins (also pierced), head of an African male in amber, pierced canine tooth, suspended phallus (all on chain in purse)	app. 5: 64.4
Butt Road, Colchester (18)	-	AD 320-400	AD 138-161	N	Dupondius Antoninus Pius	159	None	app. 5: 64.2

Table 22: Table showing all burials containing coins in circulation over 100 years before being deposited in the grave

The table shows that the coins in these burials have been in circulation for at least 100 to 159 years before being deposited in the burials, but unfortunately little pattern can be identified in the examples. They come from a range of different cemeteries, so they do not indicate a local tradition. This confirms the observations in the other regional studies. No correlation can be made between the age/sex of the deceased and early coins since the burials in the table contain evidence for male, female and infant remains. The burials also date throughout the period of analysis. The earliest burial comes from St. Stephens in St. Albans and dates to c. AD 50-75 (app. 5: 104.5) and the latest are burials 18 and 503 from Butt Road in Colchester which date to c. AD 320-400 (app. 5: 64. 2 and 64.7). This also confirms the observations in the previous chapter, that the inclusion of early coins is not confined to a single period and do not represent a shift in practice and belief.

Three of the coins in the table are noted as pierced, which may account for their early date. Their significance in relation to the function of the coin is discussed further in 5.4.6. But, it is possible that they were family heirlooms which have been passed down to the deceased.

Two of the burials contain Republican *denarii*. The burial from Askham in York contained a probable *denarius* of Julius Caesar dated to c. 49-44 BC (app. 5: 169.1) and the burial from St. Stephens contained an illegible *denarius* dated to c. 55-54 BC (app. 5: 104.5). As discussed frequently throughout this work, these tend to have a longer circulation period so are to be expected. Since the latter coin is recorded as illegible, it is unclear how it has been dated, but I must trust the information in the excavation report.

More unusual are the copper alloy coins with a long circulation period. For example, burial 18 from Butt Road in Colchester, dated to c. AD 320-400, contained a *dupondius* of Antoninus Pius dated to c. AD 138-161 (app. 5: 64.2). This means that the coin must have been in circulation for at least 159 years before being deposited in the burial. As the circulation period for a copper alloy coin cannot be determined, it is possible that this was still in general circulation. Unfortunately, there is no evidence to suggest that the coin was specifically chosen based on its early mint date.

Conclusion

In summary, the majority of the coins date contemporary to the burials (75.2%). As the period of circulation increases, the numbers of burials significantly decrease, with only 3.8% or 12 of the 319 coins in circulation for over 100 years before being deposited in the burial.

The longer period of circulation is significant and the individual analysis of these examples has hinted at possible patterns. All the early coins which are pierced appear to be associated with other amulets, such as the dog canine, and suggest that the coin was included as protection. The coins could have been pierced and passed down as an heirloom, which could account for their early date. The use of early copper alloy examples is much rarer, but as there is no estimate for the average circulation period for these they cannot be argued as specifically chosen. Overall, there is very little evidence to interpret specific coin choice based on the mint date of the coin.

6.5.3 Metal Type

The metal type of coins in burials has also been analysed for patterns and irregularities. This information is the most frequently available, even for early excavations, as it does not require the analysis of a numismatic specialist.

Metal type of coins overall in the database

Within the database the metal type of 293 coins is recorded. Table 23 gives the number of coins of each metal type; those burials with more than one metal type are considered separately at the end of this section.

Metal type	Number of coins	Percentage
Copper alloy	202	69
Silver	52	17.7
Gold	21	7.2
Billon	18	6.1

Table 23: Table showing the distribution of burials containing each of the metal types (references: app. 5)

The results show that copper alloy coins are the most commonly deposited at 69%. Silver is much less frequent at 17.7%, as are *antoniniani* at 6.1%. Unlike the other

case study areas within imperial boundaries, gold also features in the database at 7.2%. This percentage appears quite high but they were all contained in only four burials. Due to their rarity, these will also be considered separately.

The dominance of copper alloy coins implies that the coin did not have to be made of precious metal; it was the observation of the custom that was important. It could be seen as a method by which the local populations were preserving the more valuable silver coinage. Interestingly, when further subdividing the copper alloy coins by denomination, it is still the lower value coins being used. In the British database, 57.4% of the copper alloy coins are *asses*, 14.9% are *dupondii*, 12.7% are *sestertii*, 1.2% are *folles* and the remaining 13.8% could be either *asses* or *dupondii*.

It is interesting to note that this pattern can also be observed with coin offerings in springs in Britain. For example, at Coventina on Hadrian's Wall, copper alloy dominated at 95.6% (Allason-Jones and McKay 1985, 50-52) and at Bath 78.8% of the coins were copper alloy (Walker 1988, 306-309). This suggests that the real value of the coins is not a consideration when being ritually deposited.

Metal type of coins arranged by burial date

In order to analyse how the metal type of the coin changes over time, the burials were arranged into the 50-year date ranges and the metal type deposited in each period examined (figure 34).

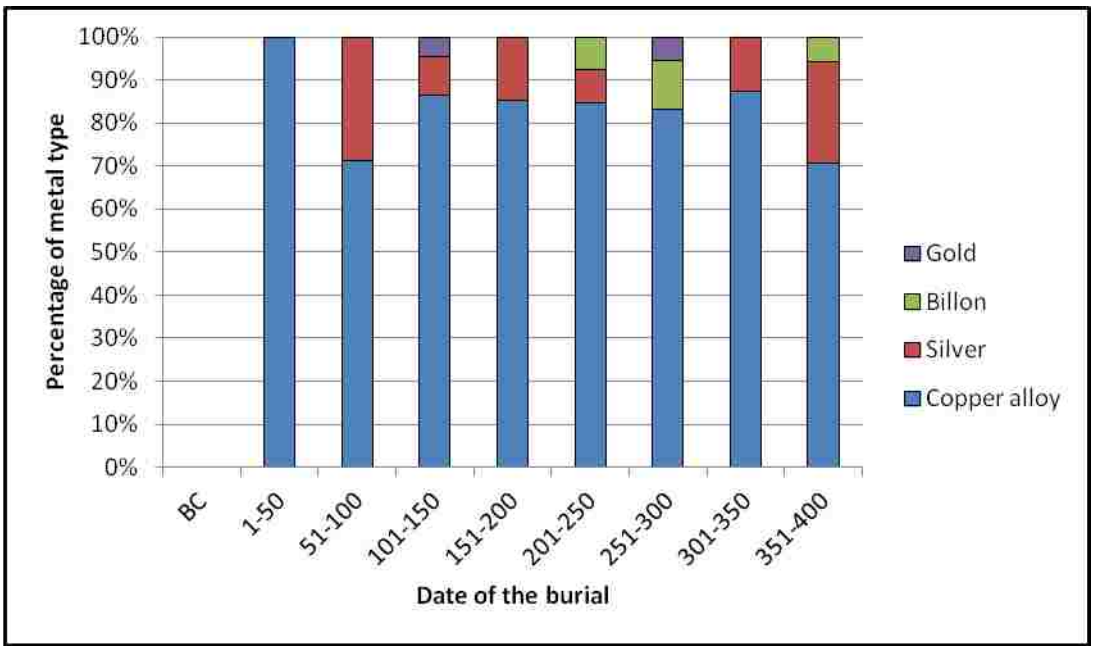

Figure 34: Graph showing the percentage of each metal type, divided by the date of the burial (references: app. 5)

The graph shows the dominance of copper alloy throughout the period of analysis. The use of silver is notable in burials from the second half of the 1st century (28.6%), although the percentage does fluctuate. *Antoniniani* are deposited in burials from the first half the 3rd century, but these remain low in number and comprises only four burials. The gold coins do not appear to be confined to a particular period but with only two examples it is difficult to identify patterns.

Metal type of coins based on coin date

In order to assess how the metal type of the coin changes over time, and take into consideration those burials which have more than one metal type, an analysis based on the date of the coin was also undertaken (figure 35). It should be noted that 'BC' also includes Republican *denarii*.

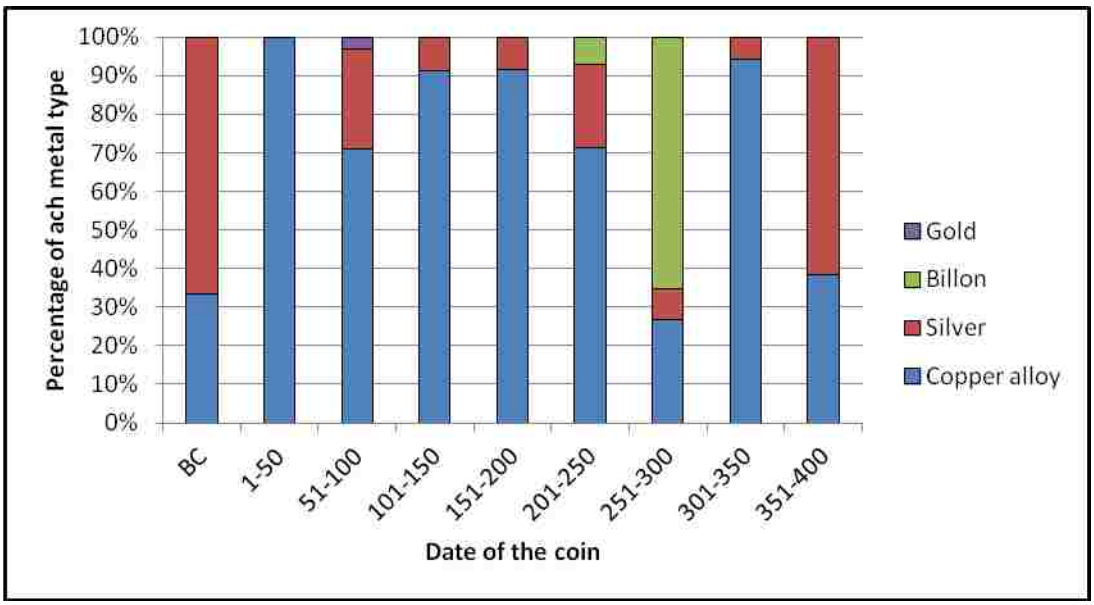

Figure 35: Percentage of the metal type of the coins, divided by date of the coin (references: app. 5)

The graph confirms that copper alloy coins date throughout the period of analysis. The frequency of silver coinage is much more varied. Silver coins dating to the late Republic and early imperial period are most frequently deposited at 66.7%. However, only three coins date to this period, so caution should be taken when interpreting this as an important trend. Another period when the silver coinage is dominant is the end of the 4th century (61.5%). It should be noted that although there are more silver coins in the database in this period, a large number come from single burials. For example, the burial from Rams Hill, Uffington contained nine *siliquae* (app. 5: 16.1). This argument can also be applied to the high percentage (65.4%) of *antoniniani* in the second half of the 3rd century. For example, Burial B291 from West Tenter Street in London contained nine *antoniniani* as well as two *denarii* (app. 5: 132.1).

In comparison to figure 31, this graph shows a significant increase in the number of *antoniniani*, which requires explanation. As discussed at the beginning of this section, burials with more than one metal type were excluded from the first graph. As this is based on the date of the coins overall in the database, any *antoniniani* that have been dated could be included.

The inclusion of later silver coins was also observed by Gorecki in his analysis of inhumations from Germany (Gorecki 1975). He suggests that this could be linked to the wealth and status of the deceased and their family (Gorecki 1975, 242). On the available evidence, this cannot be argued for Britain. Moreover, if one considers the date of the burials, copper alloy still dominates. The possibility that these coins are deposited within higher status burials will be discussed further in 5.4.7.

Burials with gold coins

Gold coins do not occur in any other of the case study regions. Therefore, they will be discussed separately to identify if there is any reason why they would have been chosen over silver or copper alloy examples. There are four burials that are reported to contain gold coins. The first example is cremation from Penbryn in Wales, dating to the late 1st or 2nd century, which contained a gold *aureus* of either Titus or Vespasian. The only further information is that there was also a grey ceramic urn, suggesting that the burial did not contain other objects of great wealth (app. 5: 62.1). The limited information on the coin and the burial makes interpretation difficult but it does not appear to be a grave of a wealthy individual.

The second example is a child inhumation from Moorfields in London, dating to after AD 253. The coin is described as in good condition but there is no information other than it was of Salonina. The other grave goods include three jet bracelets, a ring of gold wire, a red ware jar and a white ware cup (app. 5: 142.1). The inclusion of gold grave goods is rare in the database, which might suggest that this is the burial of a child from a high status family. This may explain the inclusion of a gold coin.

The third example is another inhumation from Bloodmore Hill in Lowerstoft for which there is no burial date. Other grave goods included an engraved onyx that was hung on a gold chain (app. 5: 192.1). Again, it could be suggested that this is the burial of a wealthier individual.

The fourth example is one of the most interesting burials with gold coins. This cremation from Potter's Corner in Ashford in Kent is said to have contained 18 gold coins. Compared to the previous examples, this burial has much less information. It

was excavated in 1929 as part of the widening of the London by-pass at Potter's Corner, and was said to contain pottery, including a Samian ink-pot and Dragendorff 33 cup. No publication of this burial makes it certain whether it was gold coins or discs in the burial but if they are coins, this is an exception in the database (app. 5: 119.1). No mention is made about the position of the coins/discs in the burial; therefore, it cannot be certain that the coins were actually inside the burial. It is possible that a cemetery may have been considered as a type of sacred ground for a coin hoard or it may even be coincidence that the burial and the coins are in the same place.

In summary, there does not appear to be any reason why these burials were treated differently to the others in the database. The other grave goods suggest that perhaps two of them may have been for a member of the upper levels in society, but this cannot be confirmed through the grave goods alone. The number and which denominations of coins deposited appear to be the decision of the mourners, and perhaps gold coins held a personal significance to the deceased or their family.

Burials with mixed metal types

Within the database there are six burials which contain coins of more than one metal type. These will be also looked at individually to assess any possible patterns, and interpret why more than one metal type might have been included.

The first example is a cremation from Askham in York dating to the late 1st century AD, which contained a silver coin (most likely a *denarius* but this cannot be confirmed) of Julius Caesar and a contemporary copper alloy coin of Domitian (app. 5: 169.1). Both coins were discovered in the cinerary urn and there were no other grave offerings.

Burial 5 from St. Bartholomew's Hospital in London was a female inhumation dating to the middle of the 4th century AD, which contained an *antoninianus* of Claudius II Augustus and a copper alloy coin of Constantius II in the grave fill (app. 5: 144.1). As with the previous example, no other grave goods were found.

Burial 218 from Open Cemetery at Derby Racecourse was a male inhumation dating to the middle of the 2nd century AD, which contained a *sestertius* of Hadrian and a *denarius* of Antoninus Pius, found at the hip of the deceased, presumably originally placed in a purse. The other grave goods included a knife in a sheath, buckles, hobnails and a beaker at the feet (app. 5: 47.1).

B291 from West Tenter Street in London was a female inhumation dating to the 4th century AD, which contained 11 coins, two were *denarii* of Mariniana and Caracalla and the other nine were *antoniniani*. Considering the other grave goods, this appears to be the burial of a wealthy individual: silver, copper alloy and iron jewellery, as well as three intaglios, emerald, glass and jet beads and other metal objects (app. 5: 132.1). All coins were placed in a casket at the feet of the deceased. Although a distinction is made in this work between *antoniniani* and *denarii*, it is possible that this was not the case when placing the coins in the burial; both coins may have been chosen as they appear silver.

Cremation 99 from Brougham, dating to the middle of the 3rd century, also contained a copper alloy and a silver coin. The former was a *dupondius* of Domitian and the latter a *denarius* of Antoninus Pius (app. 5: 42.1). The coins were discovered near a boulder beside the burial, but as this boulder had been dislodged by machining, the coins were interpreted as originally part of the burial.

The final example is Burial 437 from Lankhills in Winchester, which contained the remains of a male, six coins and no other grave goods. Five of the coins were silver and dated to the mid to late 4th century AD and were found in a pile next to the right elbow (app. 5: 90.51). It is possible that these were originally enclosed within an arm purse. The other was a copper alloy coin of Helena, found to the right of the shoulders of the deceased; the original position may have been on the mouth or eyes. It is possible that the different coins had different meanings.

Overall, there is little pattern to these burials. Both male and female graves contain coins of multiple metal types, suggesting no connection between this practice and the sex of the deceased. A similar argument can also be made for date of the burials, as

the examples above date between the late 2nd century and the 4th century AD. The position of the coin, the possible social status of the deceased and the geographical location of the burials also vary between each burial and cannot be used to explain the inclusion of coins of different metal types. In general however, the mix does seem to be confined to a single copper alloy and a *denarius* or *antoninianus*, but with so few examples it is difficult to argue this as a pattern. Burial B291 from West Tenter Street is the only exception, as the coins do appear to have been chosen based on metal type, especially considering the wealth of the other grave goods.

Conclusion

In summary, analysis of the metal type has shown that copper alloy is most commonly deposited at 69%. It is also used throughout the period of analysis, indicating that the observation of the custom is important and not the denomination of the coin. The sub-division of copper alloy coins also confirms the preference for lower value coinage with 67.9% of the copper alloy coins being *asses*.

Deposition of silver is much less frequent at 17.7%. Most of these are Republican and early Imperial *denarii*, which are to be expected given the longer circulation period of silver coinage. As these examples are rare, it is tempting to suggest that they are evidence for specific coin choice, although this cannot be confirmed.

The deposition of *antoniniani* are to be expected from the first half of the 3rd century, but like the silver coins, remain few. This would suggest that there was some attempt to preserve more valuable coinage.

No pattern can be identified in the use of gold coins and coins of more than one metal type. Two of the burials, the inhumation at Moorfields and Burial B291 from West Tenter Street, could belong to higher status individuals, explaining the inclusion of precious metal coin, but this cannot be argued for every example. It appears to be the personal choice of the individuals involved in the burial process which accounts for these exceptions to the overall trends.

6.5.4 Number of coins in burials

The number of coins per burial has been examined to determine how many are most commonly deposited in a single burial. This is one of the more accurate analyses, as the number of the coins is generally recorded; the older excavations being the only exception, where the notes are inaccurate or material missing. The database contained information on the number of coins in 418 burials.

Number of coins in the burials overall in the database

The first analysis looks overall at the number of coins being deposited in each burial.

Table 24 shows the number and percentage of burials containing one, two, three, four, five and six and more coins:

No. of coins per burial	Number of burials	Percentage of burials
One	325	77.6
Two	36	8.6
Three	20	4.8
Four	9	2.2
Five	9	2.2
Six or more	19	4.6

Table 24: Table showing the number and percentage of burials and the number of coins they contain (references: app. 5)

The table shows that deposition of one coin was most common at 77.6%. Multiple coins are far less frequent. Two coins are most common after the single examples, but this is significantly lower at 8.6%. This continues to reduce, with 4.8% of burials containing three coins, 2.2% with four and 2.2% with five. The combined percentage of coins with 6 and more coins is slightly higher at 4.8%, but this includes more burials.

Interpretation for the multiple coin offerings is difficult and speculative at best. If a single coin can be considered payment for the journey to the afterlife, perhaps the other coins can be interpreted differently. They could offer protection for the deceased on the journey or provision for the afterlife. The coins could also be offerings by the family and friends of the deceased, perhaps a method by which they

can sacrifice their own belongings in the hope that the deceased will make it to the afterlife.

Number of coins in the burials plotted against burial date

A second investigation considers how the number of coins per burial changes over time. This is intended to observe whether there is period in which multiple coin offerings are more frequent. The problem arises when the burials have been dated to ranges. In order to plot as many burials as possible, the midpoint of the burial date range was used. Of course, this means that there are possible errors which must be taken into consideration when analysing the graph, but if it is used to interpret general trends rather than to generate a close chronological study of changes over time, any possible distortion may be minimised. In order to create a more representative scatter, i.e. prevent a distorted graph, those burials with more than 12 coins have been removed and will be discussed separately at the end of this section.

Figure 36 is a scatter diagram showing the number of coins in each burial, divided by burial date.

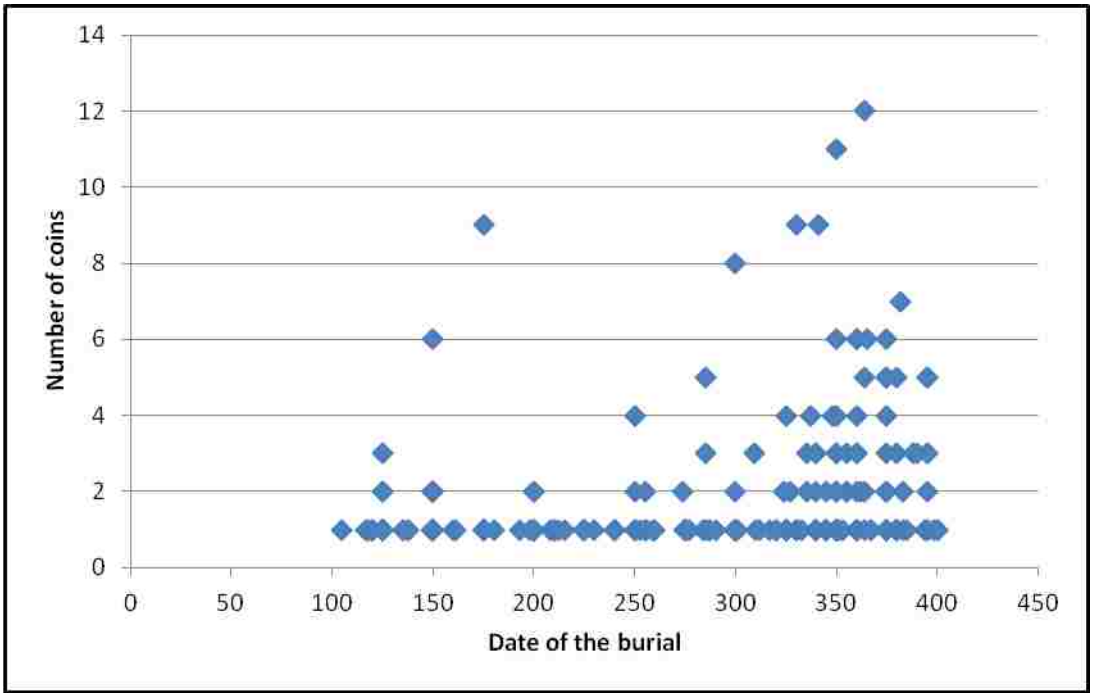

Figure 36: Scatter diagram showing the number of coins in each burial, divided by burial date (references: app. 5)

The graph shows that the inclusion of one coin is common throughout the period of analysis. This can also be argued for the deposition of two coins, although they are much less frequent. Interesting is the clustering of multiple coins from the beginning of the 4th century AD. It appears that the deposition of multiple coins is much more common in this period, with anything up to six coins considered 'normal'. It is tempting to argue a change in practice at this time, although the higher number of burials dating to this period should be taken into account. Nevertheless, it is an interesting pattern which could be tested when looking at a larger database. There appears to be no pattern associated with those burials containing more than six coins, they are scattered throughout the period of analysis. The absence of examples in the 1st century BC is caused by a lack of datable burials with the number of coins recorded.

Burials with more than 12 coins

Three burials were removed from the scatter diagram as they contained many more coins and thus distorted the image. As a result, these exceptions will be considered individually.

The cremation from Potters Corner in Ashford is discussed in detail in 5.4.3, so the burial details will not be repeated in depth here. The burial is reported to have contained 18 gold coins or discs (the details of which are unknown), a large white urn, a small urn, an inkpot and a Samian cup (app. 5: 119.1). Since the association between the burial and the coins is questionable, interpretation is difficult.

The earliest datable burial (and most comprehensively published) is Burial 3, a child cremation from Colchester, dating to c. AD 43-50. This grave contained 36 coins, most recently published by Hella Eckardt in 1999. The coins were all contemporary imitation *aes* of Gaius and Claudius: 12 *asses* of Agrippa (RIC 58), 20 of the Claudian Minerva type RIC 100 and two of the *Constantiae Augusti* (RIC 95). There were originally 36 coins but two have been lost (app. 5: 71.10). These coin types are not rare in this period, and it is possible that these were randomly chosen, but the fact that there are so many of each type suggests the possibility that they were

specifically chosen. The reverse images of the coins show Neptune, Constantia in military dress and Minerva with a shield (hurling a javelin), which could be interpreted as offering protection to the deceased (Crummy 2010), but this is purely speculative.

The final example is Burial 2 from Frilford. Details on the burial are sparse, but it was the inhumation of a young adult male containing 34 coins. All the coins were House of Theodosius, although the metal type and denomination are unknown, and they were found 12 inches above the head. The excavator interpreted this as the concealment of a hoard of coins in a grave (app. 5: 173.2), suggesting that the coins were not intended to be associated with the burial.

This is not a unique phenomenon, with another example of a hoard of 1,418 coins associated with a Roman grave in Ketton in Rutland (Carlyle 2008, 85). Unfortunately, stratigraphic relationships could not be established as the burial had been truncated by machining. This burial was published too late to be included in the database but is important as it highlights the occurrence of coins in association with burials. Although interpretation is speculative, there are several possible explanations for the placement of hoards at this location. The possibility that the coins are intended as grave goods should not be discounted; perhaps the coins were a collection of offerings from the family and friends of the deceased? In the absence of grave-markers, the burials could have been unknown and their association is coincidental; this is more plausible when the burials are isolated, as opposed to being part of a cemetery. If the burial was known, and the hoard is not intended as a grave good, the cemetery may be a safe place to store the coins or perhaps the area had a ritual significance.

No pattern can be seen in the burials which contain large numbers of coins and again it is the choice of the individuals burying the deceased. There is no evidence to suggest that the number of coins is linked to wealth and status, based on the other grave goods. In addition, no correlation can be identified in the date of the burials, their geographical location and the age and sex of the deceased.

Conclusion

To conclude, the deposition of one coin is most common and occurs throughout the period of analysis. The inclusion of between two and six are far less frequent, but can also be seen in every period. A possible pattern can be observed in those burials dating to the 4th century, where multiple offerings increase and anything up to seven coins can be expected. This is an interesting observation but requires testing as part of further work, using a much larger database. This would determine whether the pattern is the result of a larger number of burials in the database belonging to this period.

More unusual are those burials containing 18-36 coins. Unfortunately, these examples, with the exception of the Colchester child grave, have very little detailed information, making interpretation of function difficult. As discussed above, no pattern can be identified in the examples and it appears that the number of coins placed in the grave is the personal choice of those involved in the burial process.

6.5.5 Location of the coin in the burial

The key to understanding the significance of the coin in burial ritual is its location in the grave, with the belief that those placed in the mouth were part of the ritual to pay Charon for transport across the River Styx. If the placement of coins in burials is linked to a single mythological belief, then one would expect very little variation in the position of the coin in the burial.

The database contains information on the location of the coins in 208 inhumations. This section will begin by examining the location of the coin, based on the description in the excavation report, to determine the variety of locations where the coin is found. The second analysis will merge a number of the categories to take into consideration the original position of the coin. The changes in the location of the coin over time will also be investigated.

Burials containing multiple coins, deposited at different locations, and the location of the coin in cremations are discussed separately at the end of this section.

Location of the coin - general

Table 25 shows the number and percentage of coins found at each of the different locations on the body:

Location of the coin	Number of burials	Percentage of burials
Head/neck	88	42.3
Chest	16	7.7
Arms/hands	16	7.7
Pelvis/waist	11	5.4
Upper leg	4	1.9
Lower leg/knee/feet	14	6.7
In a vessel	14	6.7
In the fill	41	19.7
Part of jewellery	4	1.9

Table 25: Table showing the number/percentage of burials with coins in each location (references: app. 5)

The table shows that the coins are most commonly found on and around the head (42.3%), although these do not form the majority and the find location suggests a greater variety in the original position.

7.7% of the coins were found around the arms, perhaps placed in the hand or in an arm purse (Birley 196). A similar argument can be made for the 5.4% found at the waist; it seems likely that the coins were placed in a purse. The 6.7% deposited in a vessel could have also been placed there for safe keeping. These coins could also be interpreted as payment to Charon.

The 1.9% of coins found as part of a jewellery pieces are unlikely to be payment to Charon; these tend to be pierced and can be interpreted in two ways. They can be part of jewellery piece, which either belonged to the deceased or was given to them after death by a close relative. The coins could also be included for symbolic reasons, such as protection for the deceased. This will be discussed in more detail, and with examples, in section 5.4.7 below.

Notable is the high percentage of coins found in the fill of the grave (19.7%). These could be interpreted as accidental loss, when the grave was dug or filled in, but such

a high number (41 examples) suggests that they were an intentional deposit. It is unlikely that they are intended as payment to Charon, since the coin is not in direct contact with the body, and it is possible that the coin may not have been for use by the deceased. It seems probable that the coins were placed or thrown into the grave by mourners. The reasons for this are speculative but it could be a way in which the family and the friends could participate in the burial process; the coins could be intended as protection for the deceased or for safe passage to the afterlife.

Table 26 gives the revised number and percentage of burials in each category:

Location of coin	Number of burials	Percentage of burials
Head/neck/chest	104	50
Waist/pelvis/upper leg	15	7.2
Hands	5	2.4
Arms	11	5.4
Lower leg/feet	14	6.7
In a vessel	14	6.7
In the fill	41	19.7
On a bracelet	4	1.9

Table 26: Table showing the revised number/percentage of burials with coins in each location (references: app. 5)

The results show an increase in the number of coins which were originally found around the head, possibly placed on the mouth or eyes, to 50%. If all of these can be attributed to payment to Charon, it suggests that half of the coins are in observation of the Charon custom. It is possible that those placed in the hand could also be seen as payment to the ferryman, which, if added to those around the head, increases the percentage to 52.4%. The number of coins at each of the other locations changes little. An increase in the number potentially deposited at the waist to 7.2% can be detected, with the number in the fill remaining the same.

Location of the coin – chronology

A second investigation examined at how the location of the coin in the burial changes over time; can any patterns be identified?

Within the database 177 burials has the date of the burial and the location of the coin noted. For analysis, the burials were divided into location using the revised positions and the burials were divided by date into the 50-year time periods.

Figure 37 shows the location used in each of the date ranges:

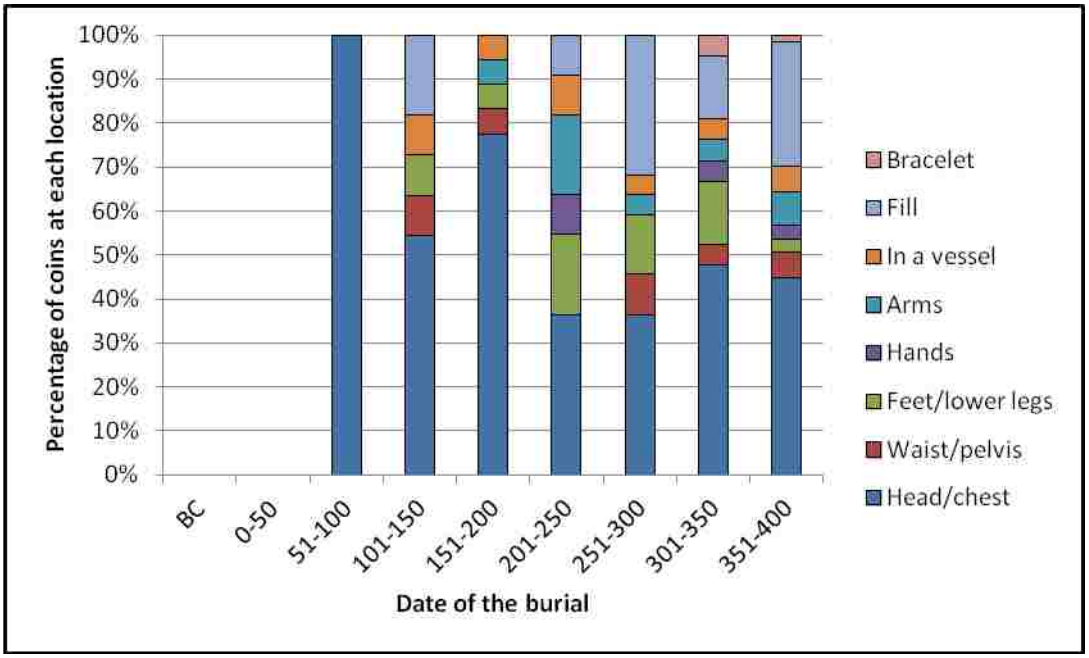

Figure 37: Location of the coins in each of the date ranges (references: app. 5)

The graph shows that the coins are found in a variety of locations throughout the period of analysis, but there are hints at possible trends. The deposition of coins at the head/neck is common throughout the period of analysis but a drop can be seen in the first half of the 3rd century (from c. 78% to c.37%) and although the percentage of coins at the head/ neck fluctuates, it remains low.

Few other patterns can be identified. Coins in the fill, in a vessel, at the feet and around the waist can be seen in every period and they fluctuate in number. It is interesting to note that the deposition of a coin on a bracelet is confined to the 4th century AD but, as this includes only three examples, this cannot be interpreted as a pattern.

Burials with coins in different locations

11 burials in the database contain multiple coins, deposited at different locations on the body. These will be considered separately to try to identify why this would occur; do the different locations indicate a variation in belief?

Interestingly, six of the burials come from the cemetery of Lankhills at Winchester, which may indicate a local tradition for the placement of coins in multiple locations. These will be considered first.

Burial 58 of a male dating to c. AD 375-85 contained five coins, two of Valens AD 364-378 and three of Valentinian I AD 364-375. One of these was found in the mouth, one in the fill, two around the skull and one is unknown (app. 5: 90.4). The coin in the mouth could be considered payment to Charon and arguably those also around the head. However, the presence of coins in the fill indicates that mourners may have thrown these into the grave.

Burial 270, dating to c. 375-85 AD, contained three coins, two of Valens and one of the House of Valentinian. One of the coins was found by the mouth and the other two close to the right hand (app. 5: 90.19). The coin in the mouth could be intended for Charon and those in the right hand provision for the dead.

Burial 283 of an adult male dating to c. 390-400 AD contained three coins, one of Magnus Maximus, one of the House of Constantine and one of the House of Theodosius. One of the coins was found in the fill, the other two under the skull (app. 5: 90.20). This burial shows the repetition of the deposition of one coin at the head of the deceased and another in the fill. If the coins at the head can be considered payment to Charon, the coin in the fill is most likely the action of a mourner at the funeral.

Burial 322, also of a male and dating to c. 370-80 AD, contained two coins. One of these was illegible and the other was a silver coin of Valentinian I. The former was found in the fill, the latter by the left shoulder (app. 5: 90.23). This is another

example of the placement of a coin close to the head and another in the fill and suggests a local tradition at this cemetery.

Burial 329, dating to c. 350-360 AD, contained two coins, both imitations of the House of Constantine. One was found in the fill, the other under a bowl at the feet of the deceased (app. 5: 90.26). This example does not confirm to the pattern observed above, although there is still a coin in the fill; the location of the coin at the feet is more difficult to interpret.

The final example from Lankhills is Burial 336. This was the inhumation of a child containing six coins; one of Constantine I, one of Constantine II, two of Magnentius (one of which was an imitation) and two of Constantius II. Two of the coins were found at the feet of the deceased, two the hands and the location of the last two are unknown (app. 5: 90.27).

One of the most interesting examples comes from the cemetery at Rams Hill, Uffington. The burial has been dated the very end of the period of analysis, c. AD 400, and contained nine coins; these were all *siliquae*, one of Theodosius I and eight of Honorius. Seven of the coins are noted as in the remains of a bag close to the ribs of the deceased, the other two were discovered in the mouth of the deceased, wrapped in silver foil (app. 5: 16.1). Care has been taken with the coins in the mouth and can be argued as payment to Charon. Those in the bag could be donations by family and friends, perhaps as provision for the afterlife.

Burial RB6 from Snell's Corner of a female, dating to after AD 388, contained three coins; one of Arcadius, one of Maximus and one of Theodosius. The first was found by the right shoulder, the second by the side of the deceased and the third under the neck (app. 5: 93.1). The coins found by the shoulder and under the neck could have originally been placed on the mouth or eyes and could represent payment to Charon. The coin at the side of the deceased could have been in a purse or pocket and could have a different function. Again, they could be seen as provision for the afterlife.

Burial 69 from Butt Road, Colchester, dating to c. 325-400, contained two coins, one of Tetricus I and another of Tetricus II (AD 271-274). One of the coins was pierced and found on a bracelet, the other was found loose in the coffin (app. 5: 64.3). The coin on the bracelet can be considered a jewellery item and the coin in the coffin could be payment to Charon.

Burial 6 from Icklingham of a male dating to the middle of the 4th century contained six coins, only one of which was identifiable as belonging to the House of Constantine. One of these coins was found in mouth of the deceased and the other five in the fill (app. 5: 196.3). This is similar to the examples from Lankhills, where a coin was found in the mouth and the others in the fill. Once again, payment to Charon can be suggested for the coin in the mouth, and such a large number in the fill suggest they were thrown in by mourners and are not accidental loss.

The final example is Burial B481 from West Tenter Street, London, which has been dated to c. 270-400 AD. The grave contained two illegible copper alloy coins, one was found by the left elbow and the other below the head (app. 5: 132.7).

Conclusion

Shared between all these examples is a date in the 4th century, although the date of Burial B481 may be slightly earlier. This may indicate a change in practice and belief at this point. However, six of the examples are also from a single, late-Roman cemetery which creates a bias for this date. This is something which should be considered as part of further work.

Eight of the burials have a coin which could plausibly be argued as originally placed in the mouth. In these examples the coin around the head could be interpreted as payment to Charon with the other coin(s) performing a separate function. The burial from Rams Hill is an interesting example of this as two of the coins were found in the mouth, wrapped in silver foil and seven were found in the remains of a bag at the ribs (app. 5: 16.1). Those in the mouth do appear to conform to Charon mythology but those in the bag are performing a different function. As described above they

could be for provision for the afterlife, or a gift for safe passage by the friends and family of the deceased.

The presence of coins in the fill also occurs in five of the examples. The coin placed in connection with the body could be interpreted as for Charon with those in the fill thrown in by mourners.

Location of coins in cremations

The location of the coin in a cremation is confined to four categories; in a vessel, in the grave pit, on top of a vessel (used as stopper or on a plate) and in the fill. Within the British database there is information on the location of the coin in 62 cremations.

Table 27 shows the location of the coins in the cremations:

Location of the coin	Number of burials	Percentage of burials
In a vessel	43	69.4
In the grave pit	14	22.6
On the top of a vessel	2	3.2
In the fill	3	4.8

Table 27: Location of the coins in the cremations (references: app. 5)

The table shows that the majority of the coins are placed in a vessel (69.4%). Unfortunately, the excavation reports are not detailed enough to determine if the vessels also contain the cremated remains. This information would indicate whether the coin is in direct association with the body of the deceased. Like the inhumations, coins are also found in the fill, implying that the participation of mourners is not confined to inhumations.

Three cremations contained coins described as burnt: Holborough in Kent (app. 5: 115.1), Burial 53 from Trentholme Drive in York (app. 5: 157.4) and Norton in Wroxeter (app. 5: 178.1). These coins can be considered pyre offerings as opposed to grave goods. As they are few, it seems likely that again it is the personal beliefs of the individuals which ruled this process. Perhaps they believed that the coin had to be

in contact with the body during cremation, so that the deceased could have access to the coin.

Conclusion

In summary, the study of the location of the coin in the burials has produced important data for the role of coins in burial ritual and highlights the importance of recording the location during excavation. The study has shown that half of the burials had the coin placed around the head, suggesting conformity to the Charon mythology. Nevertheless, it has also shown than 50% of the coins are not found around the head, implying a different associated belief.

Other positions for the coin include the arms and hands, the waist, the feet, within a vessel and the fill. These are all relatively few compared to the use of the mouth with the exception of those in the fill at c. 20%. At such a high percentage, these cannot all be attributed to accidental loss, and are likely to have been thrown in by mourners at the graveside.

Looking at the changes in the location over time, patterns can be identified. The placement of coins on and around the head of the deceased is common throughout the period of analysis but drops in the 3rd century and although it fluctuates in percentage, remains low. This could indicate a change or evolution in practice and possibly also associated belief. Coins are also found in the fill, in a vessel, at the feet and the waist in burials dating to all periods. The use of the coins as part of a jewellery item is confined to the 4th century. However, this is based on only three examples; more would be required to make further conclusions.

Association between the location of the coin and mythological belief is much more difficult in the cremations. In these burials, the coins are recorded as in the grave pit, in a vessel, on the surface on a vessel (or used as a stopper). Within the database, the majority of the coins are found within a vessel (c. 69%) with very few recorded as on the vessel or in the fill. Unfortunately, the location of the coin in relation to the cremated remains is not always clear and this information may actually be more useful for interpretation. Where the coins are found in connection to the remains of

the deceased, they could be interpreted as for use by the deceased. When they are not, such as those in the fill, they could be viewed as for protection. To fully analyse this, many more cremations would need to be considered, with a closer inspection of the location of the cremated remains.

Overall, the diversity in placement suggests a variety in belief, although this appears to be ruled by the individuals involved in the burial process and not a specific mythology. If the coins were placed in observance of a single, strict mythology then this variation would not be identified. The evidence suggests that although a large proportion of the burials can be interpreted as payment to Charon, the same number again can, and should, be interpreted differently.

6.5.6 Pierced coins and coin condition

The piercing of a coin changes its role in the burial. It can no longer be considered as performing an economic function and should be considered separately in the context of the burial. As with the other case study regions, these are a rarity with only 12 burials containing pierced coins. To determine the exact function of pierced coins, it is necessary to look at the examples in more detail.

Table 28 gives the details of the burials containing pierced coins.

Burial	Sex/ age	Burial date	Coin details	Grave goods	Reference
Butt Road, Colchester (15)	-	AD 275-400	1. Unidentified coin of House of Valentinian (364-378) 2. Unidentified coin of House of Valentinian (364-378)	Copper alloy bracelet with 1 bead, sting of 7 beads and 2 coins and glass vessel	app. 5: 64.1
Butt Road , Colchester (69)	Adult	AD 325-400	1. Unidentified coin of Tetricus II (272/273-274)	1 coin (not pierced), 2 jet necklaces, amber bead, 1 shale, 1 jet and 1 iron armlet, 4 copper alloy bracelets, one with pierced coin	app. 5: 64.3
Butt Road, Colchester (278)	-	AD 218-400	1. As/dupondius of Hadrian (117-138): RIC 717 2. Denarius of Claudius (41-54): RIC 66 3. Denarius of Julia Maesa: RIC 268	Head of an African male in amber, 3 coin, bell and suspended phallus all on a chain, in a purse	app. 5: 64.4
Butt Road, Colchester (406)	-	AD 367+	1. Illegible coin of Valens (367-375)	Jet, amber and glass beads, copper alloy lunula and coin on bracelet	app. 5: 64.5
Butt Road, Colchester (503)	Infant	AD 320-400	1. Illegible coin of Diadumenian (217-218)	2 bead necklaces (163 and 23 beads), 6 bead bracelet (with copper alloy disc, finger-ring and coin), 1 shale and 4 jet armlets	app. 5: 64.7
Joslin Collection, Colchester (75)	-	AD 100-150	1. Billon provincial Greek 2. Billon provincial Greek 3. Billon provincial Greek	2 urns, 2 flagons, 2 pale green glass phials	app. 5: 71.3
Joslin Collection, Colchester (81b)	Child	AD 100-150	1. Copper alloy coin of Nero (62-68)	13 beads, phallic amulet, shale and jet rings, 2 finger-rings, mirror, tweezers, purple glass, coin on armlet, copper alloy case, casket fittings	app. 5: 71.4
Verulam Hills Field, St Albans (1)	Infant	AD 200-299	1. Unidentified coin of Septimus Severus (193-211)	None	app. 5.106.2
West Tenter Street, London (B392)	Child	AD 250-350	1. As/dupondius of Hadrian/ Antoninus Pius (117-161)	Fragments of glass vessels, miniature glass bowl, 2 glass bottles, gold earrings, bone pyxis, ivory figurine, 3 Venus figurines	app. 5: 132.5
Hooper Street London (B666)	Child	AD 320-400	1. Copper alloy coin of Licinius I (320-324)	None	app. 5: 139.1
West Tenter Street, London	-	AD 120-150	1. Unidentified coin of Nero (62-68)	Urn, copper alloy box-mirror, mirror, glass ring	app. 5: 147.11
St Pancras, Chichester (228)	Female	AD 175-225	1. Illegible copper alloy coin of Nero (62-68)	Ceramic vessels, 8 bone needles, copper alloy needle, cosmetic and toilet instruments, bone toggle, 2 brooches, pierced canine tooth, 5 beads, copper alloy pin, glass beaker, cup handle, iron bracket	app. 5: 211.5

Table 28: Table showing details of the burials containing pierced coins

Geographically, the burials tend to be confined to sites in London, St Albans, Colchester and Chichester. Interestingly however, five of the burials come from the cemetery at Butt Road in Colchester (41%). This may indicate a local tradition in this area for the deposition of pierced coins.

No pattern can be identified between the dates of the burials, which range from the first half of the 2nd century to the end the 3rd century AD. The inclusion of pierced coins does not appear to be limited to a single time period, although it is notable that there are no very early or very late examples.

Where the coin type has been recorded, these are all copper alloy. It is possible that copper alloy coins have been pierced for their aesthetic value. The inclusion of a bracelet with beads and the coins in Burial 15 from Butt Road, suggest that the coin was part of a jewellery item (app. 5: 64.1). Other reasons for piercing the coin should also be considered. For example, the reverse image or the mint date of the coin may have had a particular significance to the deceased or their family. Unfortunately these reasons are not identifiable in the archaeological record, but their importance should not be under-valued.

The direct association between the pierced coins and other amulets, such as the pierced canine teeth in burials 278 from Butt Road (app. 5: 64.4) and 228 from St Pancras (app. 5:211.5), suggest that the coin may have also had symbolic properties. It is difficult to determine the exact meaning of the coin in the context of the other amulets, since each could be included for very different reasons. It is possible that it was included as protection for the journey to the afterlife, but this is purely speculative. Woodward has suggested that necklaces in Bronze-Age burials comprise beads which represent various important events in the life of the deceased (Woodward 2002, 1043). There is no reason that the amulets on the chain link in Burial 278 from Butt Road (app. 5: 64.4), were not a similar collection. Unfortunately, a detailed study of jewellery as grave goods would be required to confirm this hypothesis.

One of the most interesting observations is that 41% of the burials with pierced coins contain the remains of infants or children. This is extremely significant as evidence for this has also been found in the other case study regions. Explanations for this are extremely speculative. Since the coins appear to be part of a jewellery item, such as a necklace in Burial 503 from Butt Road (app. 5: 64.7) or a bracelet in Burial 81b from Colchester (app. 5: 71.3), it seems more likely that the items belonged to a member of the family, perhaps the mother. It is possible that they were also included for protection of the deceased in the afterlife. The suggestion by Nina Crummy that coins for infant burials may be specifically chosen based on reverse image is important here, but unfortunately, this information has not been recorded for these particular burials. This is something which will require further work. Nevertheless, the possibility that martial figures are included as symbolic of protection or Ceres promotes resurrection, should not be discounted.

Overall, no single interpretation for pierced coins can be offered, it is the choice of those involved in the burial process, therefore each individual example should considered in the context of the burial.

Coin condition

The condition of the coin has also been analysed to investigate whether coins deposited in burials are from general circulation. This is difficult as a large number of the coins are corroded or damaged, making it difficult to ascertain condition of the coin when it was deposited in the burial. Within the British database there was information on the condition of 98 coins. For analysis, the coins have been divided into the following categories: Excellent to lightly worn, Worn and Very worn to bad.

Table 29 shows the percentage of coins in each of the condition categories:

Coin condition	**Percentage of coins**
Excellent to lightly worn	22.5
Worn	35.7
Very worn to bad	41.8

Table 29: Table showing the percentage of coins in each of the condition categories (references: app. 5)

The table shows that c. 42% of the coins are described as 'very worn to bad'. This suggests that they have been in general circulation before placed in the burial. This is supported by the 35.7% which are classed as 'worn'. It is not possible to make many conclusions from this evidence but it does confirm the observation in section 5.4.2, that the coins have been in general circulation before being deposited in the burial and there is no specific choice based on the condition of the coin.

Conclusion

In summary, the piercing of a coin is very important for the interpretation of its function. It is a rarity in the database, although there are more from Britain than the other case study areas. The act of piercing a coin changes its function and it can no longer be simply interpreted as the payment to the ferryman for travel to the afterlife. Where the coin is connected to other beads, they can be interpreted as a jewellery item and included for their aesthetic properties.

A number of the burials also contained pierced coins together with pierced amulets. This connection indicates a possible symbolic interpretation. It could be considered an amulet, perhaps for protection of the deceased. The inclusion of pierced coins in infant burials should also be considered separately. It is unlikely that the coin belonged to the infant and could be instead seen as a gift from a close family of friend, presumably for protection of the deceased. The high number of examples from Butt Road in Colchester suggests a possible local tradition.

Investigation into the condition of the coin adds little to this study. The majority of the examples are described as worn to very worn, suggesting that the coin has been in general circulation before placed in the burial. This would mean that the coins are not being kept for use in burials and it is the presence of the coins and not the specific examples which are important.

6.5.7 Associated grave goods

The consideration of the coin in the context of the burial also requires an analysis of the other grave goods; can they aid interpretation of the role of the coins in burial

ritual? As has been demonstrated above, when considering the pierced examples, the grave goods can be extremely informative in the interpretation of the function of the coin. Can the other grave goods be used to interpret the social status of the deceased? And, if so, does it suggest that all levels in society are observing the custom?

Pierced coins

Five of the burials had pierced coins that were probably part of jewellery pieces, based on the other grave goods found. Burials 15, 69, 406 and 503 from Butt Road in Colchester all have a coin found on a bracelet (app. 5: 64.1, 64.3, 64.5 and 64.7). Beads were also found in association with the bracelets, with the exception of Burial 69 where the coin is described as the only item. Burial 81b of a child from the Joslin Collection in Colchester also contained a pierced coin, part of a jewellery piece with 13 other beads (app. 5: 71.4). A phallic amulet was also included in the burial but it is not pierced and is unlikely to be directly associated to the coins.

The inclusion of the coins for symbolic purposes can also be interpreted using the associated grave goods. Two of the burials in the database contain coins found connected to amulets. Burial 278 from Butt Road in Colchester contained three pierced coins found together with the head of an African male in amber (figure 38), a pierced canine tooth, a bell and a suspended phallus, all on a chain link, inside a purse (app. 5: 64.4). Similarly, Burial 228 from St. Pancras, Chichester contained a pierced coin of Nero as well as a pierced canine tooth and beads (app. 5: 211.5).

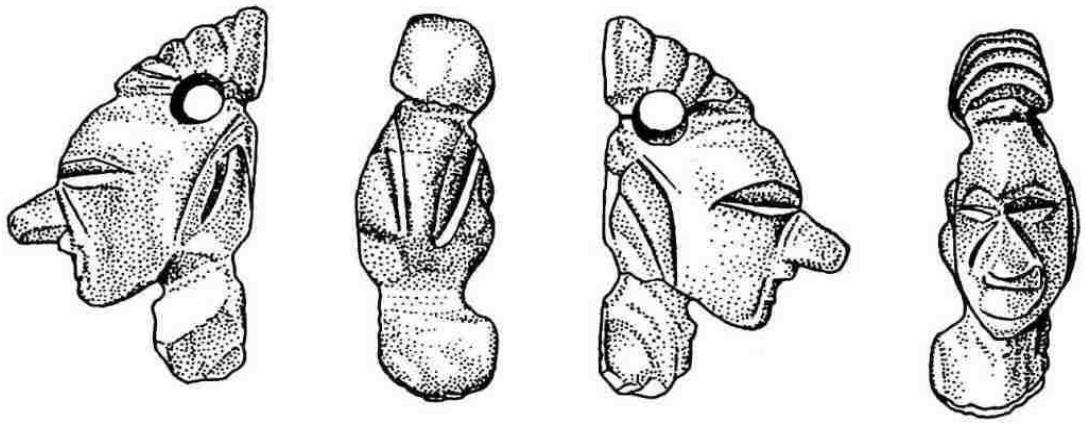

Figure 38: Amber amulet from Burial 278, Butt Road, Colchester (Henig 1984, 245, fig. 4)

The direct association between the coins and the other amulets in Burial 278 imply that the coins are not included as payment to the ferryman for transport to the afterlife nor do they appear to be included for aesthetic value. In addition, although they were found in a purse on a chain link, they were not being worn like the other items of jewellery. When interpreted in the context of the other amulets, it could be argued that they also have a symbolic function. The reason for their inclusion is difficult to determine. They could be intended as protection for the deceased in the afterlife or for the journey there. MacDonald, in his assessment of the coins from Lankhills, suggests that the eye of the Emperor on the obverse of the coin could have apotropaic powers (MacDonald 1979, 409). The inclusion of the pierced canine tooth in the second example also suggests that the coin was intended for symbolic as opposed to monetary or aesthetic purposes.

Burials with silver coins

An analysis of the other grave goods in the burials which contain silver coins may aid interpretation as to the reason why a silver coin would have been chosen, as opposed to the more commonly used copper alloy examples. 25 burials in the British database contain silver coins and overall the grave goods do not appear to belong to wealthy individuals (although the problems with interpreting wealth and status through grave goods should be acknowledged), with perhaps one or two exceptions.

Some of the burials with silver coins contain no other grave goods. For example, Burial B490 from West Tenter Street, London contained a *denarius* of Elagabalus and no other grave goods (app. 5: 132.8).

Other burials with silver coins contain only a small number of items, such as glass and pottery vessels. For example, a burial from St. Stephens, St Albans contained four coins in a purse, one has been identified as a *denarius*, as well as three flagons, one beaker, four glass vessels and iron fittings (app. 5: 104.6). Interpreting the status of the deceased is not possible in these examples.

Several of the burials also contain multiple silver coins. For example, Burial (a) from Roodeye contained two silver coins and no other grave goods (app. 5: 41.1) and

Burial 437 from Lankhills contained six coins, five of which were silver and one was copper alloy and contained no other grave goods (app. 5: 90.51). The use of multiple silver examples could indicate a wealthier burial but given the date of the burial in the late 4th century, a period in which multiple coins are much more common.

Based on the types of other grave goods in the examples above, there appears no reason why silver coins were deposited instead of the more common copper alloy. They do not appear to be the burials of wealthy individuals and it is probable that the type of coin used was the decision of those involved in the burial process and the reasons for the choice cannot be identified in the archaeological record.

There are, however, two possible exceptions to this assessment. The first is a cremation from Stebbing in Essex, dating to the middle of the 2nd century AD, which included two Republican *denarii* as well as a copper alloy box, a gilt silver bow brooch and glass and pottery vessels (app. 5: 72.1). The second is Burial B291 from West Tenter Street. This burial has been described as an irregularity in a number of the sections above and can be argued as wealthy based on the other grave goods. The burial contained 11 coins; two *denarii* and nine *antoniniani* as well as four bracelets (copper alloy, silver, iron and jet), three intaglios, emerald, jet and glass beads, copper alloy and iron fittings, a sheet of silver foil and hobnails (app. 5: 132.1). As will be demonstrated below, there are a number of burials which include items of precious metal, but this burial contains the most. It appears therefore that this is the burial of a wealthy individual.

Burials with precious metal grave goods

Although a rarity, a number of the burials also include gold, silver and bronze grave goods. Can these burials be interpreted as those of a higher status?

Table 30 gives the details of those burials containing precious metal grave goods.

Burial	Sex/ Age	Burial date	Coin details	Grave goods	Reference
Infirmary Field, Chester	Female (youth)	AD 75-200	1. Unidentified copper alloy coin of Antoninus Pius (138-61)	2 worn gold-earrings, 2 pots and a lamp	app. 5: 39.8
Roodeye, Cheshire (b)	2 males (father and son)	AD 81+	2. Unidentified copper alloy coin of Domitian (81-96)	Gold ring	app. 5: 41.2
Bartlow Hills, Ashdon (II)	Adult	AD 150-199	1. Unidentified coin of Hadrian (117-138)	3 glass vessels, gold ring with cornelian intaglio, glass urn, cylindrical vessel, cup, wooden tankard with copper alloy handle, wooden box with iron lock	app. 5: 63.2
Verulam Hills Field, St Albans (2)	Child	AD 200-230	1. Partially illegible coin of Septimus Severus (210)	Wool shroud with gold thread, baton of shale beads on iron tube, box containing beads, phallic amulet, ox vertebra, 2 Mediterranean shells	app. 5: 106.3
West Tenter Street, London (B392)	Child	AD 250-300	1. As/dupondius of Hadrian or Antoninus Pius (117-161)	Fragments of glass vessels, miniature glass bowl, 2 glass bottles, gold earrings, bone pyxis, ivory figurine, 3 Venus figurines	app. 5: 132.5
Moorfields, London	Child	AD 253+	1. Unidentified gold coin of Salonina	3 jet bracelets, ring of gold wire, 2 ceramic vessels	app. 5: 142.1
Bloodmore Hill, Lowerstoft	-	-	1. Unidentified gold coin	Engraved onyx set in gold	app. 5: 192.1
Lancing Ring (10)	Child	AD 100-199	1. Unidentified pre-Roman silver coin (British/Gaulish?) 2. Unidentified coin	Gold *brooch*, buckle	app. 5: 204.1
Lankhills, Winchester (336)	Child	AD 355-365	1. Unidentified coin of Constantine I (310-313) 2. Unidentified coin of Constantine II (330-341) 3. Unidentified coin of Constantius II (350-361) 4. Unidentified coin of Constantius II (350-361) 5. Unidentified coin of Magnentius (350-353) 6. Unidentified coin of Magnentius (350-353)	5 pins, beaker, bronze wire (bracelet?), 3 sets of beads, 2 bronze catches for the necklaces, 10 bracelets around the left arm, silver finger-ring, glass counter, spindle whorl	app. 5: 90.27
Butt Road, Colchester (647)	-	AD 367+	1. Partially legible coin of Valens (367-375)	Silver pennanular brooch, iron armlet, 7 copper alloy armlets, 2 white metal finger-rings, bone comb	app. 5: 64.8

Burial	Sex/ Age	Burial date	Coin details	Grave goods	Reference
Alwalton (II)	-	-	1. Unidentified coin	Silver plate, glass, jet, bronze ornaments, engraved wood	app. 5: 21.1
Lankhills, Winchester (81)	Adult	AD 335-345	1. Unidentified coin of Magnentius (350-353) 2. Unidentified coin of Magnentius (350-353) 3. Unidentified coin of Constans (348-364)	Glass beaker, 8 metal objects, brooch, silver plate, bronze buckle, bronze strap-end, knife, glass beaker	app. 5: 90.6
Tower Hill, Sandy	-	-	1. Unidentified coin	urn, silver ring set	app. 5: 11.1
West Tenter Street, London (B291)	Female (19-25)	AD 300-400	1. Antoninianus of Gallienus (260-268): RIC 230 or 574 2. Antoninianus of Gallienus (260-268): RIC 344 3. Antoninianus of Gallienus (258-260): RIC 18 4. Antoninianus of Gallienus (253-260): RIC 370 5. Antoninianus of Valerian II (253-260): RIC 3 6. Antoninianus of Valerian II (253-260) 7. Antoninianus of Postumus (259-268) 8. Antoninianus of Postumus (253-269): RIC 83 9. Antoninianus of Philip I (244-247): RIC 34b 10. Denarius of Mariniana (253-259): RIC 6 11. Denarius of Caracalla (199-200): RIC 32 (R3)	Silver bracelet, copper alloy bracelet, iron bracelet, jet bracelet, 3 intaglios, emerald bead, 2 green glass beads, jet bead, 2 bone dice, sheet of silver foil, lock fitting from a jewellery box, iron key, iron plate, iron hasp, iron pin, copper alloy sheet, iron ring, lead-alloy plate and hobnails	app. 5: 132.1

Table 30: Table giving details of the burials containing gold and silver items

Within the database eight burials contain gold items (app. 5: 39.8, 41.2, 63.2, 106.3, 132.5, 142.1, 192.1 and 204.1). These tend to comprise jewellery items such as finger-rings and earrings. For example, a female burial from Infirmary Field in Chester, dating to the late 1st or 2nd century AD, contained a copper alloy coin two earrings, two pots and a lamp (app. 5: 39.8). A gold ring with a cornelian intaglio and a coin of Hadrian were found in a glass urn, along with three other glass vessels, pottery vessel, a cup, basketwork, a wooden tankard with a copper alloy handle and a wooden box with an iron lock were found in Burial II from Bartlow Hills in Ashdon (app. 5: 63.2). A more unusual jewellery item is an engraved onyx set in gold and hung around the neck of the deceased in an inhumation from Bloodmore Hill, Lowerstoft (app. 5: 192.1). These are everyday items which more than likely belonged to the deceased or a close member of the family, and although they are rare, do not necessarily indicate an individual of a higher status in society.

Burial 2 from Verulam Hills Field, St Albans contained the remains of a woollen shroud which had been made with gold thread, a baton of shale beads threaded onto an iron tube, a wooden box containing beads, a copper alloy fan handle, a phallic amulet, an ox vertebra and two Mediterranean shells (app. 5: 106.3). It is unusual for textiles to survive to the point that the thread can be identified. The other grave goods could be expected considering it is a burial of a child; the shale baton could be interpreted as rattle, the coin placed as payment to Charon and the amulet to keep the child safe on the journey. This is not an overly rich burial but it is unusual.

Six burials in the database contain silver grave goods. Again, they are mostly items for personal ornamentation, such as jewellery or brooches. Burial 336 from Lankhills in Winchester for example contained a silver fingering as well as a bronze bracelet, three sets of beads, two necklace catches, ten bracelets, a glass counter spindle whorl and an iron padlock and key (app. 5: 90.27). It is interesting to note the placement of jewellery items in the burial of a child. Such a high number suggest that they did not belong to the child were probably given to the deceased by family and friends. The burial could be interpreted as that of a wealthier individual but this is difficult to confirm. It is possible that the thought process behind the burials of children is very different to adults and more items may not be a reflection of status. A closer analysis of child burials in this period would be required to test this hypothesis.

Silver brooches also appear in the database. Burial 647 from Butt Road in Colchester, dating to the late 4th century AD, contained a silver penannular brooch found on the right shoulder of the deceased. In addition, one iron and seven copper alloy armlets, one copper alloy and two possible silver fingerings and a bone comb (app. 5: 64.8). This burial could be interpreted as that of a wealthier individual although again it is unclear from the grave goods alone.

Silver plates are also found in Burial II from Alwalton, which also contained bronze ornaments (app. 5: 21.1) and Burial 81 from Lankhills in Winchester, dating to 335-345, contained a brooch, a bronze buckle, a bronze strap-end, a knife and a glass beaker (app. 5: 90.6).

Far more frequent are the burials which contain bronze objects. 18 burials in the British database contain coins with copper alloy objects. The nature of these is not always clear, especially when the description is 'bronze objects' (see app. 5: 23.2), but in general they tend to be jewellery items such as bracelets or rings (see app. 5: 24.1 or 90.24), belt fittings (see app. 5: 90.3) and brooches (see app. 5: 90.23).

Again, these items can be attributed to the everyday use and wear and more than likely belonged to the deceased in life.

Conclusion

The grave goods associated with the burial can significantly aid the interpretation of the function of the coin, especially in the case of the pierced examples. The association of the coin to other objects such as beads or amulets can help make a distinction between those coins placed as jewellery and those which may have a symbolic purpose. Where the coins are on their own or associated with beads on a necklace or bracelet there is nothing to suggest that they are more than jewellery items.

There are a number of cases where the coin is found directly connected to other amulets such as phallic symbols or a canine tooth on the remains of a chain link. The coins in these examples could be argued as also holding an amuletic significance. They could be included as protection for the dead for the afterlife and the journey

there, gifts from the living, or perhaps they were of significance to the deceased when they were alive, possibly marking important periods in their life. It is the use of associated grave goods which has led to this distinction in interpretations and illustrates the importance in using this evidence and not focusing directly on the coin. The possibility that the coin could change function when deposited should not be ignored. For example, an item of jewellery to one of the mourners could be included in the burial as protection for the deceased. This highlights the possibility that a single coin can have multiple functions

The interpretation of the social status of the deceased using the associated grave goods is extremely difficult. The rarity of the inclusion of precious metal grave goods suggested that these could be related to higher status individuals. Those burials containing silver coins were used to investigate this. Only one of the burials in the database could be argued as belonging to a higher status individual, Burial B291 from West Tenter Street which contained 11 silver coins and a large number of high status objects. The assessment of those burials containing precious metal objects did not provide much evidence. In general, these were jewellery items which could have belonged to the deceased in life and although it could be argued that they belonged to a wealthier individual this is not clear.

6.5.8 Comparison of coin losses to coins in burials

Comparison of the coins in burials to those in circulation is difficult, as coin circulation varies within each region. It would be misleading to compare the burial data to the coin finds from a single site, as it is not necessarily representative of the whole region.

Reece's summary of coins from 140 sites in Britain provides a method by which to compare coin losses to coins in burials in this database (Reece 1991). As it is a compilation of coins from sites from throughout Roman Britain, it could be considered as giving a more representative picture of coin circulation in the area. This section will therefore compare the data provided by Reece to the coins in burials to investigate whether they follow the same pattern or if the chronology of the burials differs.

It is difficult to argue that the site finds are representative of the coins in general circulation as time may be taken to find higher value denominations and smaller coins are more difficult to find, although work has been undertaken to correlate the distributions. Using modern coinage, Newton has investigated the relationship between coin losses and circulation patterns (Newton 2006). Considering the potential problems with this type of investigation, such as the over-representation of smaller coins as they are more likely to be lost and the under-representation of higher value coins as time would be taken to recover them (Newton 2006, 216), Newton attempted to answer the following questions:

- Do the numbers of coins of each denomination found correlate with the numbers of coins of each denomination in circulation? and
- Do size and denomination need to be taken into account when making predictions about coins in circulation? (Newton 2006, 219)

Over a period of 12 months, Newton recorded the numbers and denomination of coins seen in a city to the north-east of London and statistically tested the relationship between the number of coins found, and the number of coins in circulation (Newton 2006, 217). The results showed that there was a definite correlation between the distributions and even when he took into consideration the size and denomination of the coins, the overall results of the experiment varied little (Newton 2006, 220). The result of this work demonstrates that coin losses can be used as characteristic of those coins in circulation.

Comparison of coin losses to burial data

The comparison of the burial data to site losses has been separated into two parts. The first investigates the percentage of coins in each of the date ranges to visually identify any periods in which the distributions may vary. As the numbers of coins in Reece's database are significantly larger, the second investigation examines the data statistically, to see if the differences in distribution identified in the in the graph are measurably different.

For analysis, the dates of the coins found in the burials from modern Britain were divided into the 21 periods used by Reece. Within the British database we know the

date of 518 burials. Coins with a longer date range and which do not fit into Reece's categories have been excluded.

Figure 39 shows the percentage of coins in each of the date ranges from both Reece and the burials studied here:

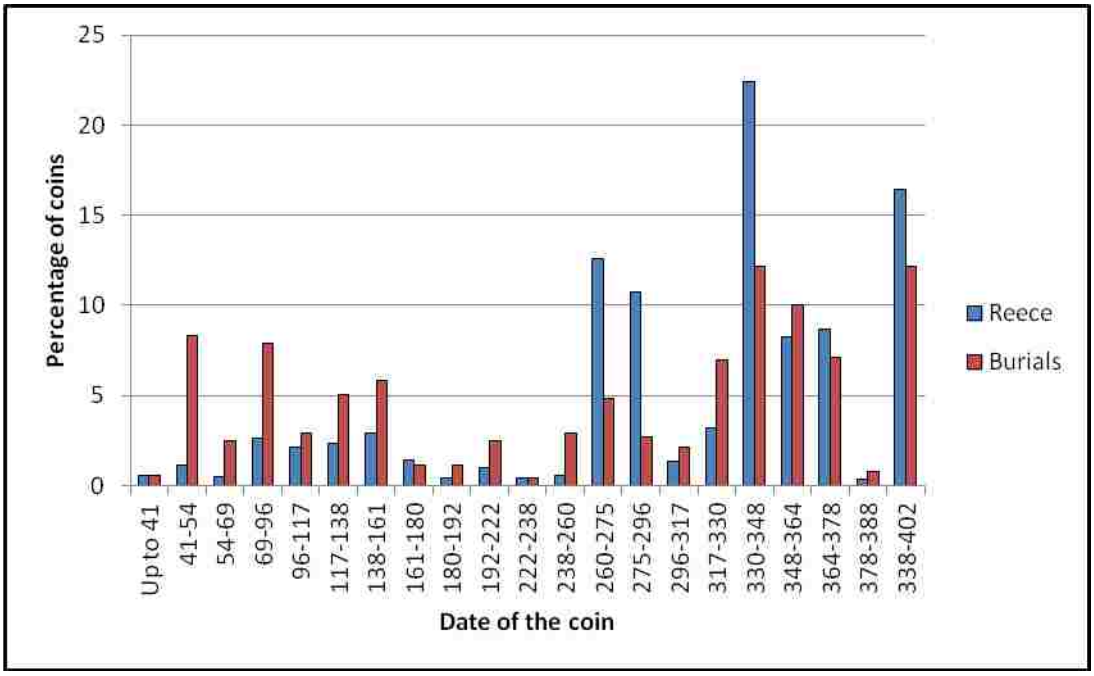

Figure 39: Comparison of Reece data to the burials of modern Britain (data from Reece 1991, table 1 pg. 19-28 and app. 1)

The graph shows that the accidental coin losses and the burials follow roughly the same trend with the number of coins in both examples dropping in the mid to late 2nd century but picking up from AD 260 onwards. Further drops in both distributions can also be seen in the periods 296-317 and 378-388, when there were generally fewer coins in circulation. This is to be expected considering that coins of Aurelian and Diocletian are also rare site finds (Casey 1988, 47). As both datasets are following similar patterns, it can be argued that coin losses do reflect coins in circulation in each of the date ranges.

There are, however, some notable differences. Up until the period 260-275, there were habitually more coins in burials compared to accidental losses. Most notable are the periods 41-54 and 69-96, where there are seven and three times as many coins in

burials respectively. This could be linked to the popularity of the custom when it was first introduced (as discussed in 5.4.1).

This trend reverses from the period 260-275 onwards where the coin losses outnumber those in burials, with the periods 317-330 and 378-388 being the only exceptions. The over-representation of coin losses is most pronounced in the period 275-296 where there are three times as many coins from sites. As discussed in 5.4.1, the practice decreases at the beginning of the 3rd century and this could be seen as the perseverance of the custom but some people. The comparison to Reece's dataset suggests that this is not linked to circulation of coins but instead a change in practice.

Overall, although both distributions follow a similar pattern, differences can be identified. These indicate that the patterns observed in the chronological distribution of coins in section 5.4.1 are not likely to be directly linked to availability of coinage, and should instead be interpreted as a change in the observance of the custom.

Chi-squared test

In order to check if the differences observed above are significant, a statistical test of the two distributions was undertaken. Given the categorical nature of the data, the Chi-squared test was chosen.

Chi-squared test has been used here to test for a relationship between the distribution of coins in Reece and the burial data in this work. The test assumes that the coin loss data represents the normal distribution of coins, and the burial data is compared to this distribution to see if they follow the same patterns. Unfortunately, the test cannot be used to show the strength of relationship (Shennan 1997, 113), but any measurable difference will hint at the possibility the practice does not depend on the number of coins in circulation. The software package used was: Fisher. test ( ) function in R 2.13.0. The data entered can be found in appendix 1, this test was a comparison of the percentage of site losses in each of the time periods to the percentage of coins in burials in each of the categories.

The standard Chi-squared test gave a chi-squared value of 542.6, with a degree of freedom of 20 and giving a p-value of <0.0005. As any chi-squared value over 31 is

considered significant for this p-value (Campbell and Machin 1999, 195), this is strong evidence that the underlying distributions are different.

As the standard test uses mathematical approximations, the six categories with a value under five may create misleading results as they would be considered as zero. To investigate the validity of the standard test, the Fishers Exact test, based on one million replications in simulation, was used. This differs as it does not use approximations but instead uses the exact numbers. This gave a p-value of 0.000001, which confirms the results of the standard test.

In summary, both the standard and the Fishers Exact test have shown that the two underlying distributions are statistically different, within the limitations of my methodology. This suggests that coins are not being placed in burials simply because there are more coins in circulation at that time. Instead, the patterns being observed in the chronological distribution can be attributed to popularity of the practice.

Conclusion

The comparison of the burial data to Reece's survey has produced some interesting results. The graph shows that overall both distributions follow similar patterns, although closer examination of the individual time periods highlights a number of differences. For example, more coins are found in burials compared to the accidental losses up until the period 260-275, when the site finds become more numerous. This could be attributed to a popularity of the custom when it is first introduced. This suggests that the coins in burials are not solely linked to the availability of coinage and trends should be interpreted as changes in practice.

The standard Chi-squared and the Fishers Exact test have shown that the two distributions are significantly different. This suggests that other factors are important in the offering of coins in burials; the number of coins in circulation does not appear to have a direct effect on observation of the custom. It is possible, however, that on an individual level, this may have been a consideration.

6.6 Conclusion

The British evidence has produced a number of patterns which provide an interesting comparison to the other case study regions. An investigation into pre-Roman placement of coins in burials has provided no evidence for the cutom prior to Roman contact. This is in contrast to Italy and Germany where an established pre-Roman tradition can be observed.

The study of the chronological distribution has shown further differences to the other case study areas. Very few burials date to the period before conquest but this number steadily increases to peak in the second half of the 2nd century AD. This suggests that the practice is introduced through contact with the Roman world. A drop in the tradition is then recorded in the beginning of the third century. This change in practice could indicate a change in belief where fewer people are observing the custom. As will be discussed further in Chapter 8, this is a pattern that can be identified in the other case study areas. However, in contrast, the evidence for Britain shows resurgence in the practice in the 4th century, resulting is a second more significant peak. Reasons for this are difficult to find. Within the database, there are a higher number of burials overall dating to this period and could result in this peak, although the gradual climb suggests this was a lot more selective. At a point of unrest in Empire, it is possible that the practice is a way to linking themselves to the Romans? This suggestion is speculative and it is difficult to determine whether the native Britons would have realised that this was a Roman custom.

A comparison of the mint date of the coin to the date of the burial has shown that the majority of the coins date contemporary with the burial or buried within 100 years of minting. No specific date can be placed on the circulation period of any denomination of Roman coin and depending on the mint location, it would take time for the coins to get to this area of the Empire. Unfortunately a study of the mint location was not possible as part of this work due to the lack of coin identification, although this is a target for future work. Nevertheless, the evidence suggests that the coins are being removed from general circulation for use in the burial with little consideration of specific coin choice.

There are a number of exceptions to this observation where the coins have been in circulation for more than 100 years. The study of these rare examples has shown that they fit into a number of categories. They are either Republican *denarii*, which occur in each of the areas and simply have a longer circulation period, or are pierced and could be family heirlooms passed down.

An analysis of the metal type has also shown a similar pattern to the other case study regions. Base metal coins dominate at c. 70%, suggesting that the coins are being taken from general circulation and there is some attempt to retain the higher value coinage. The use of gold and silver coins and *antoniniani* is much more limited with far fewer examples. Analysis of the burials containing silver and coins of mixed metal types has shown little pattern. It could be argued that these coins are used in higher status burials but analyses of the other grave goods do not confirm this for every example. It appears that personal choice ruled the decision as to the type of coin deposited in the burial.

As with the other regions, the deposition of a single coin is most common. The use of multiple coins is far less frequent, although the inclusion of up to four coins can be found throughout the period of analysis. More interesting is the clustering of multiple coin offerings in the 4th century. Again, the higher number of examples dating to this period may explain this, although it cannot account for every example. Four burials contain a significantly higher number of coins. They could be a collection of coins for the deceased by the friends and family of the deceased and could be payment for Charon or provision for the afterlife. The possibility that coin hoards could have been buried within cemeteries for safe keeping should be considered. Perhaps the consecrated ground of a cemetery held some ritual significance?

The location of the coin in the burial is extremely significant when considering Charon mythology. 50% of the coins were found around the neck, head and chest which confirm that this was a dominant location. The other positions for the coins can be quite varied and may indicate a different function of the coin. Surprising perhaps is the large number of coins found in the fill; at c. 20% this is significantly higher than any of the other regions studied. It is possible that some of these are accidental loss, but with such a high number it is more likely that they are linked to

the action of mourners. It could be a way for the mourners to participate in the burial ritual by sacrificing a part of their own property for use by the deceased. The placement at waist, the feet and in a vessel/pocket/purse have also been observed. A chronological study highlighted a possible pattern in the placement on the head. This location is found throughout the period of analysis but drops in the 3rd century and much more variation can be detected. It is possible that this change in practice indicates much more variation in belief.

Pierced coins are a rarity in the database with only 12 examples, although this is significantly more than the other case study regions. The association of the coins to beads leads to the suggestion they are jewellery items, whereas those in connection with amulets have been considered as symbolic.

As discussed above, the analysis of the associated grave goods was extremely useful in the interpretation of the function of the pierced coins, making a distinction between those included as jewellery items and those which may have more of a symbolic function. The use of the grave assemblage to interpret the economic status of the deceased and their family is much more difficult. There are some burials that could be interpreted as higher status individuals, which suggests that it is every level of society observing the custom.

Overall, the patterns from Britain are very similar to the other case study areas but there are some notable differences. These could be an indication of local trends and traditions which should be looked at as part of further work.

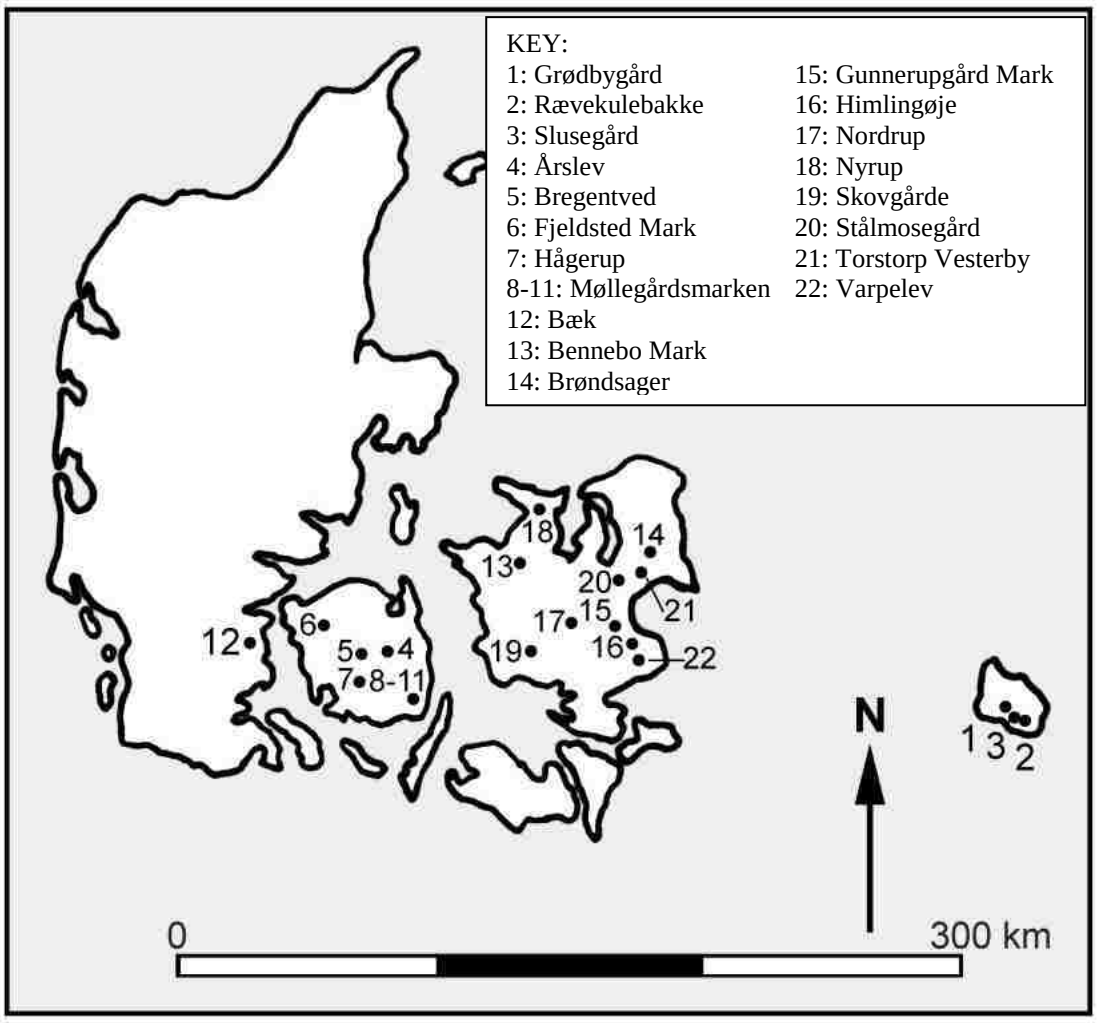

Figure 40: Location map for the cemeteries used in Chapter 7. The number corresponds to reference ID in appendix 6 and table 31 below

7.1 Introduction

The area of modern Denmark is included in this work as a control for the evidence from the Empire. This region has been chosen because it lacks direct geographical contact with the conquered provinces and yet still observes the custom.

The structure of this chapter is slightly different to the previous regional analyses. It will begin with a summary of Roman coinage in Denmark (section 7.2), looking at where geographically the coins are found, the date when Roman coins appear, the settings in which Roman coins are found, and how the coins have travelled to the area. This should give a context in which to interpret the function of coins in burials in an area where there is no monetary economy.

This is followed by the analysis of the dataset (sections 7.3-7.9). Investigation will follow the methodology outlined in chapter 1, section 1.2. The aims are to analyse the coin in its burial context as thoroughly as possible for this region. Can significant differences in practice be identified in this area? Or, has the idea spread from Rome?

7.2 The dataset

The following section will concentrate specifically on the dataset from the area comprising what is now modern Denmark. For a detailed discussion of the geographical coverage of the current work, the selection of case study areas and the general problems associated with data analysis, please refer to chapter 1, parts 1.2.3 - 1.2.5.

The approach to data collection for the area of Denmark was very different to that of Italy, Germany and Britain. Instead of surveying the available information and choosing a representative sample from throughout the study region, it was necessary to include every example that could be found. The dataset is based on a paper by Nielsen, which discusses the archaeological approach to Roman *denarii* in Denmark, in which he lists the burials containing Roman coins (Nielsen 1987-88). This was updated with the addition of more recent publications of the burials containing Roman coins (Boye 2009; Horsnæs 2010).

A major problem with the dataset is its small size. Burials containing coins are a rarity in this region with evidence for only 22 burials containing 27 coins. This is significantly fewer than those areas within imperial boundaries, which can make the analysis and formation of generalised theories very difficult. Small sample sizes can create false patterns, such as in chronological distribution; where this might be an issue, it has been noted in the analysis.

Another potential problem is the wealth of the material deposited in the burials, suggesting a custom which is linked to the higher classes in society. The bias of the remains towards the more elite members of society is an important consideration. Unlike with Italy, Britain and Germany, where coin burials appeared to transcend the social barriers, one needs to be aware that any interpretation of function of the coin in Denmark relates only to the beliefs of the upper classes.

Roman finds within Denmark is currently a popular research topic, resulting in a number of detailed recent publications (cf. Jørgensen et. al. 2003; Boye and Lund Hansen 2010 and Horsnæs 2010). This surge in popularity has vastly improved the level and quality of data available for study. Recent analysis of the burial material has included a reassessment of the original excavations, resulting in detailed catalogues of the cemeteries and the finds (cf. Boye, Ethelberg and Hansen 2010, 255-368). This level of detail is especially important when considering a region with such a small dataset, as omitting examples can cause biases in the analysis. Nevertheless, the concentration on the material culture is perhaps at the expense of the osteological information, with less than 50% of the dataset giving the age and sex of the deceased.

Percentage and location of burials containing coins

Table 31 summaries the main details for the cemeteries included in the dataset, outlining the total number of burials in the cemetery, the number of burials containing coins, the percentage of burials containing coins, and the site type (urban, rural or fort). The reference number refers to the sites on the map in the beginning of this chapter (see fig 40) and the database in appendix 6. As with the site types in previous regions, ‘urban’ refers to cemeteries in close proximity to settlement sites.

Reference no.	Site	No of burials total	No with coins	%	Site type and Notes
1	Grødbygård	236	1	0.4	Rural
2	Rævekulebakke	13	1	7.7	Urban
3	Slusegård	Not recorded	1	?	Rural?
4	Årslev	2	1	50	Rural
5	Bregentved	170	1	0.6	Rural; but with possible links to a coastal settlement
6	Fjeldsted Mark	1	1	100	Rural
7	Hågerup	1	1	100	Rural
8-11	Møllegårdsmarken	2266	4	0.2	Urban; linked to the Gudme settlement; total number includes all excavated burials from 1875 onwards
12	Bæk	1	1	100	Rural
13	Bennebo Mark	1	1	100	Rural; burial found in 1857
14	Brøndsager	3	1	33.3	Urban; linked to a small settlement at the base of the hill
15	Gunnerupgård Mark	2	1	50	Rural
16	Himlingøje	24	1	4.2	Rural; site found during gravel extraction
17	Nordrup	1	1	100	Rural; burial found in 1857
18	Nyrup	1	1	100	Rural
19	Skovgårde	17	1	5.9	Rural
20	Stålmosegård	106	1	0.9	Urban?

21	Torstorp Vesterby	8	1	12.5	Urban; linked to a settlement site
22	Varpelev	9	1	11.1	Rural; grave found in 1878-1877

Table 31: Table summarising the cemeteries considered in this chapter (appendix 6)

Table 31 shows that between 0.2 and 100% of the burials per cemetery contain coins. As discussed in chapters 4-6, the latter percentage is the result of the inclusion of individual burials in the dataset and is not likely to be representative of the popularity the custom. By omitting cemeteries with less than 10 burials, the percentage range changes to 0.4-7.7%, a likely more accurate representation of the prevalence of coins in burials. The cemetery at Møllegårdsmarken is an anomaly within the database, containing 4 burials with coins. However, when one considers the total number of burials excavated (2266), this illustrates an uptake of only 0.2%.

No real pattern can be identified in the geographical location of the burials. They are unevenly distributed throughout the country; 11 are found in Sealand, seven from Funen, three from Bornholm and one from Jutland (see location map, figure 46, pg. 255). The increased number in Sealand have been connected to urbanisation on the island, resulting in the identification of more archaeological sites (Horsnæs 2010, 94)

A dominance of burials containing coins can be identified at rural sites. This pattern may not be as significant as it seems since, until recently, there have been very few Roman coins in general found at settlement sites (Horsnæs 2010, 94). Noteworthy perhaps is the lack of burials found in the vicinity of native military sites, although this might be a product of the small dataset.

Overall, table 31 shows the selective uptake of the custom, which does not seem to be based on regional traditions.

7.3 Roman coinage in Denmark

Before looking specifically at coins in burials, it is important that an attempt is made explain their presence in this area. Since Denmark is located outside Roman imperial boundaries, and did not have an economy based on coinage, it is necessary to begin by considering the reasons for the presence of Roman coins in this region. It is hoped that it this will give a context in which to interpret coins as grave goods. The aim for this section is to briefly describe the character of Roman coins in Denmark, the denomination and date of the coins found, the contexts in which they are discovered,

how they may have travelled to Denmark and how they have been interpreted. It is hoped that this will give a background in which to interpret the function of the coins found in graves.[10]

The previous chapters have shown that coins circulate widely within the Roman provinces, a pattern which is not repeated in modern Denmark; Roman coins are a rare find in the area. Restricted circulation is a pattern that is repeated in other areas outside imperial boundaries, such as north-west Germany (Wigg-Wolf 2008, 42). With no evidence for a monetary economy between the Iron Age communities of Denmark (Horsnæs 2010, 188), alternative explanations for their presence should be considered.

Geography

Coins are found in Sealand, Funen and Jutland, although they not evenly distributed between each of the areas. Funen provides the largest number of Roman coins, c. 1,383 coins in total, although are found at only a few sites. These are concentrated in the south-east of the island at the site of Gudme and its port of Lundeborg (Horsnæs 2010, 47), although sites in central Funen also provide evidence for Roman coinage (Horsnæs 2010, 47).

From Sealand, c. 800 coins have been found, from 150 sites throughout the area (Horsnæs 2010, 41). Unlike the evidence from Funen, they come from both hoards and single finds (Horsnæs 2010, 41). Horsnæs notes that the large number of coin finds in areas such as Copenhagen, Roskilde and Køge, could be explained by the high level of building activity and consequent rescue excavation work (Horsnæs 2010, 41). However, to the west of Copenhagen, excavation has revealed areas densely settled in the Iron Age but which contain no coins at all (Horsnæs 2010, 41). This suggests a restricted circulation of Roman coins, perhaps limited to power centres or areas of regional importance.

[10] Unfortunately, this can only be a brief overview in this work. For a more extensive analysis of coins in Denmark, please refer to 'Crossing Boundaries: An analysis of Roman coins in Danish contexts' by Helle Horsnæs (2010)

Jutland produces much less evidence for coins, only c. 550 total (Horsnæs 2010, 50). These tend to be found on the east coast of the island, with finds from the sites of Aalborg and Limfjord (Horsnæs 2010, 50). Interestingly, this pattern can also be observed in the burial data; only one burial in the dataset comes from the island of Jutland (app. 6: 13), indicating that the use of Roman imports is very different in this area.

Denomination

The denomination of coins found in Danish contexts is a marked contrast to those from within imperial boundaries, with silver coins dominating the dataset. *Denarii* are most common, comprising c. 70% of the total number of coins found (Horsnæs 2010, 40). This is an important consideration when investigating the type of coins being deposited in burials. 16% of the coins are *siliquae*, but these come from a relatively small number of sites from Gudme (Horsnæs 2010, 39). They have been found in three major contexts; hacksilver hoards, in burials and as single finds. Two further *quinarii* have been found in Danish contexts but unfortunately have not been securely dated to the Roman Iron Age. They were found at the site of Holmslands Klit, dunes which also contained late Medieval and pre-modern coins (Horsnæs 2010, 39).

c.7% of the coins are *solidi* and *aurei* (Horsnæs 2010, 40). The majority of these have been found in hoards in central Funen, a large proportion of which have been made into jewellery by piercing of the attaching of a suspension loop (Horsnæs 2010, 39).

Copper alloy coins comprise only 5% of the total number of coins found; only c. 114 in total (Horsnæs 2010, 39, 160). As this is a complete contrast to the imperial evidence, they require a little more explanation. The majority of these are single finds, which date to the late Roman and early Germanic Iron Age, and are concentrated around Copenhagen (Horsnæs 2010, 160/161). In general, they are found in workshops such as at the site of Lundeborg and Hørup and as part of weapon sacrifices (Horsnæs 2010, 161).

Antoniniani are also very rare at only 1% of the total number of coins found (Horsnæs 2010, 40). 16 examples have been identified in total, although only one has been securely dated to a late Roman Iron Age context. This was a coin of Probus, found at the site of Dankirke West (Horsnæs 2010, 162). Horsnæs argues that although the *antoninianus* was designed to be a double *denarius*, its rapid devaluation meant that it was never considered more than a base metal coin outside imperial boundaries (Horsnæs 2010, 164). The validity of this is difficult to determine, but given the low numbers, it is a possibility.

The remainder of the coins comprise medallions, barbarian imitations and Greek coins. These are relatively low in comparison at c. 1% of the total number of coins found.

Chronology

Some reference should also be made to the periods in which coins are appearing in Danish contexts. How do the coins in burials fit into this chronology?

The analysis of the coins by Horsnæs has shown that very few coins date to the Republican and Julio-Claudian periods (Horsnæs 2010, 180). She gives the details of three hoards dating to this period. The Ginderup hoard has been dated to c. AD 100, a Republican *denarius* was found at Dankirke and an *aureus* dating to the 1st century AD was found at Bæk (Horsnæs 2010, 180). As has been discussed throughout this work, Republican *denarii* can have a very long circulation period, a possibility that should also be considered in relation to areas outside imperial boundaries. Therefore, care should be taken with interpreting this as evidence for the deposition of coins dating to this early period.

A bog deposit at Thorsbjerg has also produced evidence for early coins: two *denarii*, one of Augustus (2BC- AD 14) and the second of Tiberius (AD 14-37) and an *aureus* of Nero (AD 64-68) (Horsnæs 2003, 33). Horsnæs suggests that the distribution of these finds show the continuation of pre-existing long-distance contacts, dating as far back at the Bronze Age (Horsnæs 2010, 180). More compelling is her argument that, considering Roman interests in the area between the Rhine and the Elbe at this point, close Roman presence did not seem to have an "impact on the numismatic material

from Denmark" (Horsnæs 2010, 180). Nielsen suggests the lack of trade as an explanation for the scarcity of finds dating to the first century AD (Nielsen 1987/8, 159). What it does show is that the circulation of Roman coinage in the area, at this time, is restricted.

The majority of coins dating to the 1st and 2nd centuries AD have been found in contexts dating to the early 3rd century (Horsnæs 2010, 180). This is the period in which the greatest number of coins is being brought into the area. This peak coincides with the period when coins were being deposited in graves and, interestingly, is contemporary with the deposition of large quantities of war booty in bogs (Horsnæs 2003, 336). For example, a box of 18 *denarii* was found as part of a weapon sacrifice at Nydam. The coins ranged from Vespasian to Severus, with most dating to Antoninus Pius and Marcus Aurelius, 33.3 and 16.6% respectively (Horsnæs 2003, 332).

Coins continue to be deposited in the 4th century AD, although at a decreased rate, with examples from hoards at Gudme (Horsnæs 2010, 180). The currency reforms of Diocletian led to the increase in the number of mints producing coins (Sutherland and Carson 1967, 1/2), this can also be seen in the coins which are being brought to Denmark (Horsnæs 2010, 180). Horsnæs argues that the "combination of mints in the individual hoard signifies that the coins most likely came to Denmark in small batches" (Horsnæs 2010, 181). For example, the Gudme III and Gudme IV hoards show a great deal of similarity in date and mint location (Horsnæs 2010, 181).

Overall, coins are continually brought into Denmark throughout the period of analysis, although an increase in the 3rd century AD can be detected.

Where coins are found

To understand the meaning of the coins, the contexts in which they are found requires some discussion. Since the graves are the focus of this work they are excluded in this section. The main contexts in which coins are found are: deposited in bogs/peat as part of weapon sacrifices, in hoards and at settlements. As mentioned above, it is not possible to look at these in detail. Instead, they will be discussed with reference to the most important examples.

Weapon deposits are most frequently found on moorland and in wet areas, such as bogs. The assemblages include weapons, equipment for horses and warriors' personal belongings (Horsnæs 2010, 71). The coins found in these contexts tend to be amongst the latter, indicating that they were not placed as a single offering but instead smaller, more individual depositions (Horsnæs 2010, 71). For example, Deposit A at Illerup contained 198 *denarii*, including four barbarian imitations and a *sestertius* (Ilkjær 2003, 47-48; Horsnæs 2010, 71). In general, the military equipment was local in design, although the combs had come from Sweden and Norway, suggesting that some of the warriors were not locals (Horsnæs 2010, 72). These have been interpreted as commemorative of military victories (Horsnæs 2010, 75). Jørgensen draws a parallel between this practice and the Roman triumph. He argues that given the large numbers of Germanic mercenaries within the Roman army, it is possible that they participated in the triumphal procession. Therefore, the ritual sacrifice of large numbers of army equipment interpreted as "war booty" could have been the conclusion to a similar activity; the bog being the sacred place to the locals rather than a temple (Jørgensen 2003, 16).

As mentioned above, coins also appear in hoards. These are most often interpreted as religious deposits, although the hacksilver hoards could be argued as deposited for later use (Horsnæs 2010, 76, 86). Examples of hoards include Råmosen, which contained c. 428 *denarii* and was found in a peat moor, and Orup, which contained 109 *denarii* and was found on a former wetland (Horsnæs 2010, 76). The context of these hoards in peat and wetlands strongly suggests that the hoards were deposited for religious reasons. The hacksilver hoard from Høsten Torp contained a large number of silver objects[11], including 8 siliquae struck by Constantine II (Horsnæs 2010, 86). The other items included ingots, rods and wires, fragments of Scandinavian silverwork and later Roman silver plate (Horsnæs 2010, 86). These were most likely deposited for safe keeping for later melting and reuse.

Coins are also found on settlement sites but are still relatively few and Horsnæs argues are accidental loss, as opposed to deliberate deposition (Horsnæs 2010, 94). This makes interpretation of their function difficult. The site of Gudme II, for

[11] The publication says this hoard weighed 4453kg, this seems very high

example has produced 250 Roman coins. These were 226 *denarii*, 19 *siliquae*, three *solidi* and two coins (Horsnæs 2010, 101). Interestingly, the coins from settlement contexts have traces of wear, which varies from very little to worn smooth (Horsnæs 2010, 102). This is in contrast to other areas outside imperial boundaries, such as Scotland and Germany, which tend to be little worn (Hunter 2007, 219). This has been interpreted as the result of secondary use and circulation before being deposited (Hunter 2007, 219); most evident perhaps in the transformation of the coins into pendants. Horsnæs argues that the coins brought into Denmark as booty were redistributed between the warriors as "amulets, tokens and souvenirs", which may account for their presence on settlement sites and their secondary use (Horsnæs 2010, 75).

Overall, the context shows that the coins offerings can be both religious and practical. Those in the weapons sacrifices, in burials and in hoards at wetlands were most likely deposited for religious reasons.

How did the coins get to Denmark?

Trade is most frequently cited as the reason for the presence of Roman artefacts in Denmark, if not with the Romans directly, then with *Germania libera* (Jørgensen 2003, 13). Trade within the area of modern Denmark should also be considered.

During the Roman Iron Age, Scandinavia consisted of a number of small chiefdoms, which were based on a 'prestige-goods economy'. The goods exchanged were predominantly Roman imports, including bronze, glass and ceramics such as Samian (Thurston 2001, 48). These are argued to have replaced native items used in "marriage-wealth, in rituals marking important life events, as political gifts and accompaniments to negotiations, as institutionalized payments and tributes...becoming a vital part of the maintenance of social organization " (Thurston 2001, 48). This point is extremely important in understanding Roman coins in Denmark. Unlike within imperial boundaries, they are a reflection of wealth and status and limited in circulation to the upper levels in society.

A possible trade route is over the sea. Nielsen suggests that the locations of Dankirke (situated on the coast on the North Sea) and Lundeborg I (on the eastern coast of Funen), and the larger volume of Roman finds (when compared to the rest of the

country), is evidence for maritime trade, where the prestigious Roman goods and coins were imported, possibly from the mouth of the Rhine (Nielsen 1987/7, 155/6). Horsnæs is more cautious in her discussion of over-sea routes. She suggests it is unlikely that Roman ships sailed the dangerous Frisian tidal areas on the west coast of Jutland, evidenced by the small numbers of Roman artefacts in this area (Horsnæs 2010, 183). Instead, she argues that the Romans traded with the Frisian areas, which were then redistributed by the locals who were able to navigate these tides (Horsnæs 2010, 183).

Nielsen has dismissed the possibility of overland routes for trade, since there were no adequate vehicles for transport and the traders would have had to cross hostile territories (Nielsen 1987/8, 158). However, the amber route should be considered. Horsnæs describes a number of possible overland routes. Horsnæs argues that the Limes was one of the most important highways through Europe and was a "zone of intensive interaction" and could account for the movement of goods towards the north (Horsnæs 2010, 184). Given the military presence, it is probable that this was a safe route for trade. Another possibility is a route through Poland to the Vistula; this area has produced a large number of coins finds, which may be evidence for this (Horsnæs 2010, 185).

Two routes have been suggested for trade, by sea and overland. It seems likely that maritime trade was important in the movement of Roman goods, especially considering the large quantities of Roman objects at coastal sites. Current research suggests that it is unlikely that in Denmark maritime trade was directly with the Romans. Instead, the use of an intermediary, such as the peoples of the Frisian territories, was used.

Pinning down an overland route is much more difficult, although it is probable that one was used. At present it is thought that the use of the Limes, the areas between Dacia and Pannonia and from Poland to the mouth of the Vistula. These could be methods by which Roman objects could enter the barbarian areas.

Conclusion

In conclusion, although brief, this section has provided a great deal of evidence which can be used in the interpretation of coins in burials in Denmark. Coins have a limited circulation, most occurring in Funen and Sealand, with significantly fewer in Jutland. The coins are predominantly silver (86%), with some gold (7%), and very few copper alloy coins or *antoniniani*. This is in complete contrast to the provinces and perhaps to be expected considering that Scandinavia was not a monetary economy. What it does suggest is that the coins, like the other Roman items, are high status objects, valued for the metal type as opposed to the monetary value. This should be kept in mind when interpreting the function of the coins in burials.

Chronologically, the coins are brought into Denmark throughout the period of analysis, although an increase can be detected in the 3rd century AD. Interestingly, this is the period in which coins are being deposited in burials. It is possible that the increase in availability of coinage meant more were available to be used in burials, but is could also be an indication of political and social change. As will be discussed later, a large proportion of the coins in burials are pierced, indicating that they were worn, perhaps as a reflection of wealth and status. Although it is extremely speculative, it could be suggested that perhaps there was a need by the elite in society to show their status by wearing this coins.

The context in which coins are found is also interesting, as they confirm the limited circulation of the items. Coins found in weapon sacrifice deposits, as part of the personal equipment of warriors, suggest that they may have been taken as war booty. The suggestion that they are ritually deposited is interesting as it provides a parallel to the Roman world, although how much they were influenced by Roman practice remains speculative. It also highlights another possible method by which coins entered Denmark. Hoards are important as they can be both symbolic and practical. Those found in sacred areas, such as bogs and wetlands, imply that they have a ritual function. Hacksilver hoards however, must have been deposited with the intention that they would be retrieved and reused. Coins on sites are much rarer, another contrast to the provinces. They have been interpreted as accidental loss and comprise mostly single finds. Notable is that some of the coins in these contexts are highly

worn (Horsnæs 2010, 102); this is in contrast to the German and Scottish data. It implies that the coins were used for a time before being deposited.

How Roman coins made their way to Denmark is a much more debated subject and not one which can be investigated in any detail in this work. Trade is the most commonly cited reason for their presence. The Roman items which appear in Danish contexts are high value and interpreted as part of a prestige economy exchange, the exotic nature of the objects mean that they are used as a show of wealth and status.

Two possible routes have been suggested for the movement of goods but both have their problems. The first is that they were brought in over the sea, but whether this was directly by the Romans or using intermediary peoples, such as those along the Frisian coast, is unclear; although the latter seems more likely. Overland is another probability but pinning down the route(s) is almost impossible to do.

7.4 Chronological distribution of burials containing coins

The chronological distribution of burials containing coins is first to be considered. It is used to identify when this practice starts in Denmark, when it ends and whether there is a period when it is more prevalent. Unlike previous chapters, where the burials have been divided into date ranges, in this chapter they can be displayed individually. We benefit in that the Danish examples have been dated using the associated grave goods as opposed to the coin.

Figure 41 shows the date ranges for the burials with coins in Denmark, arranged chronologically:

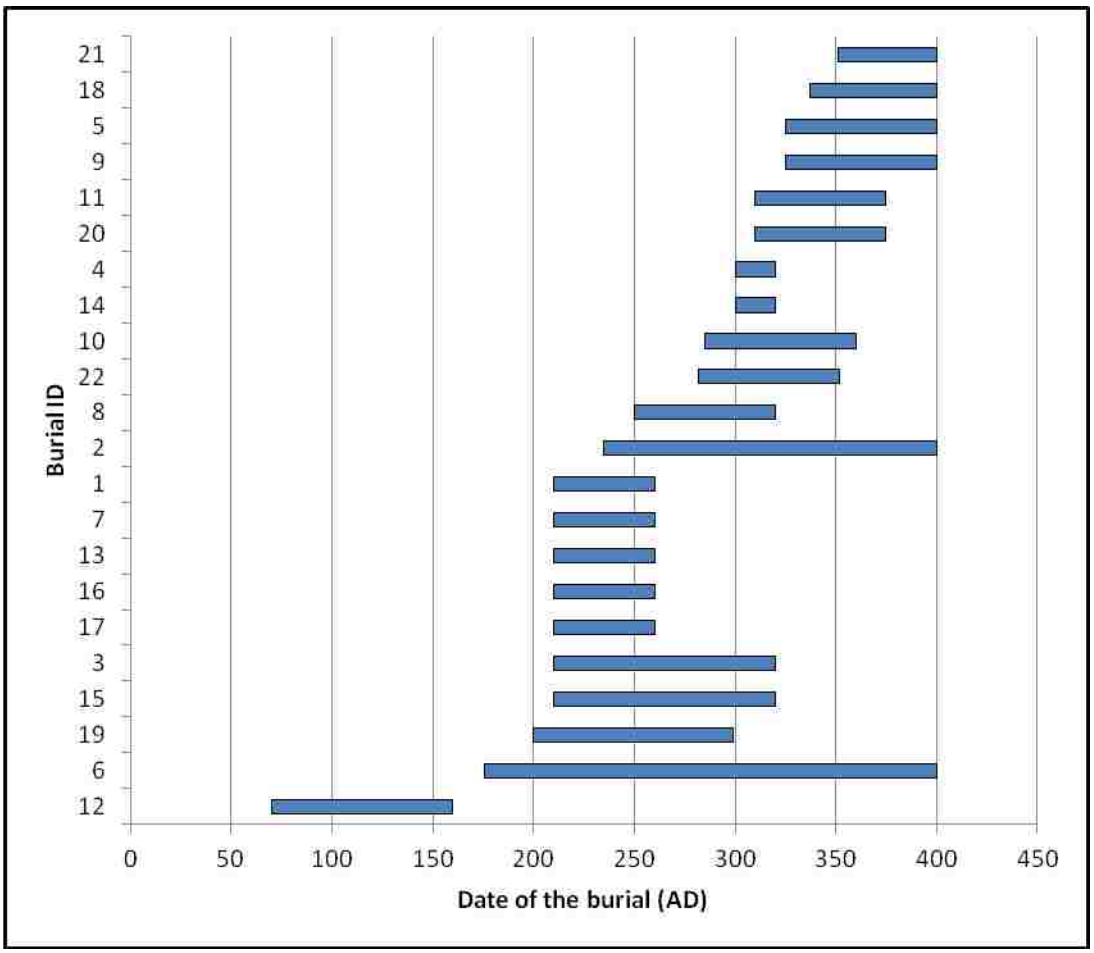

Figure 41: Graph showing the burial date range (references: app. 6)

The graph shows that coins are deposited in burials from c. AD 70 to c. AD 400, clustering between AD 200 and 400. This shows a clear 200-year period in which there is a selective uptake of the custom. Interestingly, this coincides with the period in which there is the greatest influx of coinage into Denmark (Horsnæs 2003, 336). This would imply that coin placement in burials is linked to availability of coinage. Evidence does exist for the continuation of circulation of *denarii*, albeit on a significantly smaller scale, in the Germanic Iron Age (c.400-800) with evidence from the Gudme area (Nielsen 1987/8, 155). The fact that they are not appearing in burial contexts in this period may reflect a sudden change in tradition, which might not be explained by a restricted access to Roman coinage.

The only exception to this trend is burial from Bæk in Jutland, which dates to between AD 70 and 160 (app. 6: 12). As discussed in section 6.2, imperial coinage is present in Denmark in this period, so it was available for deposition. Why this

tradition starts much earlier on this island is difficult to determine. It is interesting that Roman coins, in general, do not circulate widely in Jutland and it may indicate a different use of Roman objects in this area. This might explain why Jutland has only one burial with a coin and why it is early in date. The burial from Fjeldsted Mark in Funen could also be considered an irregularity, but this cannot be confirmed as the date range of the burial is extremely long.

7.5 Comparison of coin date to the date of the burial

The second analysis compares the mint date of the coin to the date of the burial, with the aim of identifying the length of time that the coin had been in general circulation before being deposited. The provincial regions showed the majority of coins were roughly contemporary with the burial; can this also be observed in an area outside imperial boundaries? We are fortunate that the coins have been thoroughly analysed and the date has been included in the publications. In addition, the burials tend to be dated using the other grave goods. This should mean that observed circulation period is accurate. As with the provincial chapters, the latest possible date for the coin and the earliest for the burial have been used to determine the circulation period. Where more than one coin has been deposited in a burial, the details for the earliest datable coin are used.

Figure 42 shows the date range of burials and the date range of coins they contained, with the blue blocks representing the former and the wide black blocks the latter. The thin black line between the two translates into the amount of time that the coin has been in circulation before being placed in the grave. No black line indicates that the coin has been deposited contemporary with, or very close to, the time it was minted. No thick black line indicates that the coin has been dated to that specific year.

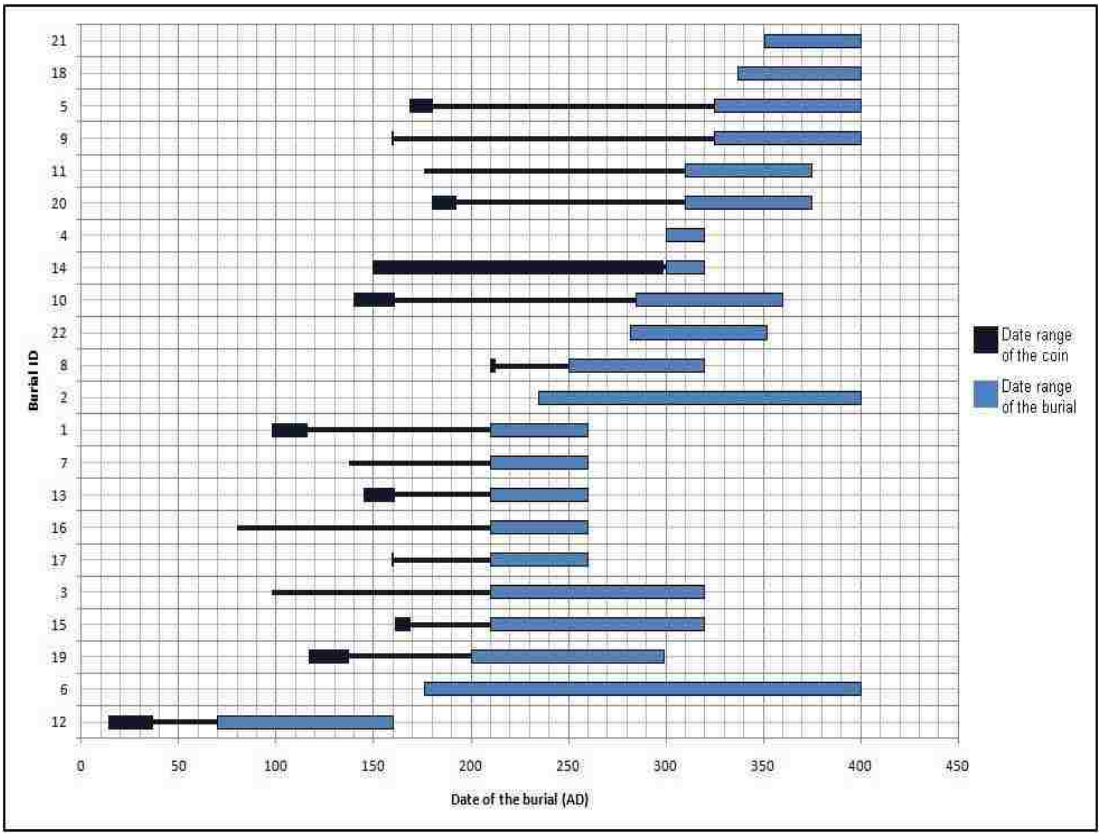

Figure 42: Graph showing the date of the burial and the circulation period and date of the coin (references: app. 6)

The graph shows that, in general, the coins from the area of modern Denmark are in circulation for a long period of time before being deposited in the burial. Only seven of the burials (31.8%) contain coins contemporary with the burial: Rævekulebakke in Bornholm, Årslev and Fjelsted Mark in Funen and Brøndsager, Nyrup, Torstorp Vesterby and Varpelev in Sealand (app. 6: 2, 4, 6, 14, 18, 21 and 22). Since these cemeteries are located throughout Denmark, it is unlikely that the inclusion of contemporary coins is linked to a particular region. It is probable that these coins were simply available for deposition and no specific coin choice was involved.

The remaining 15 burials contain coins which have been in circulation for at least 33-165 years before being deposited in the burials. The limited circulation of coins in Denmark could also mean the coin is an exotic or expensive object, which makes it more likely to be kept as an heirloom. Horsnæs makes this point when considering the items deposited in bogs. She argues that in general, there is the propensity for "the most exotic and costly objects in the find to also be the oldest," making specific reference to the coins (Horsnæs 2003, 336). Five of the coins with the longer

circulation had been pierced, or had a suspension loop fitted, implying that they were worn. It is plausible that these coins could have been handed down as heirlooms.

This being said, the time taken for the coins to reach Denmark and secondary circulation should be considered. It is entirely possible that Roman coins in this area have a longer circulation period.

7.6 Metal type of the coin

The metal type of the coins placed in the graves in Denmark has been investigated to examine whether they are also predominantly base metal. Two analyses will be attempted; the first will look generally at the metal type of the coins deposited and the second will look at how it changes through time.

Of the 27 coins deposited, 77.8% of them are silver and 22.2% are gold. The most obvious and noteworthy observation is the complete absence of copper alloy examples. As will be discussed in chapter 8, this is contradictory to what we find within the Empire, where copper alloy is frequent, with few silver or gold examples. The rarity of copper alloy coinage can also be seen in the bog evidence. A small number of examples are noted from weapon offerings, but in general they are absent (Horsnæs 2003, 337). The inclusion of precious metal coins could be used as a display of power, wealth and status of an elite burial. This interpretation is given more weight when looking at the associated grave goods, since they include other high-status objects (see section 6.8).

In order to examine how the metal type of the coin changes through time, figure 43 shows the metal type of the coins in burials, with the burials arranged in ascending chronological order. Since the burials have been dated to ranges of 50 to 250 years, the burials have been arranged by start and then end date. It is possible, however, that some burials may be in the wrong order in the sequence.

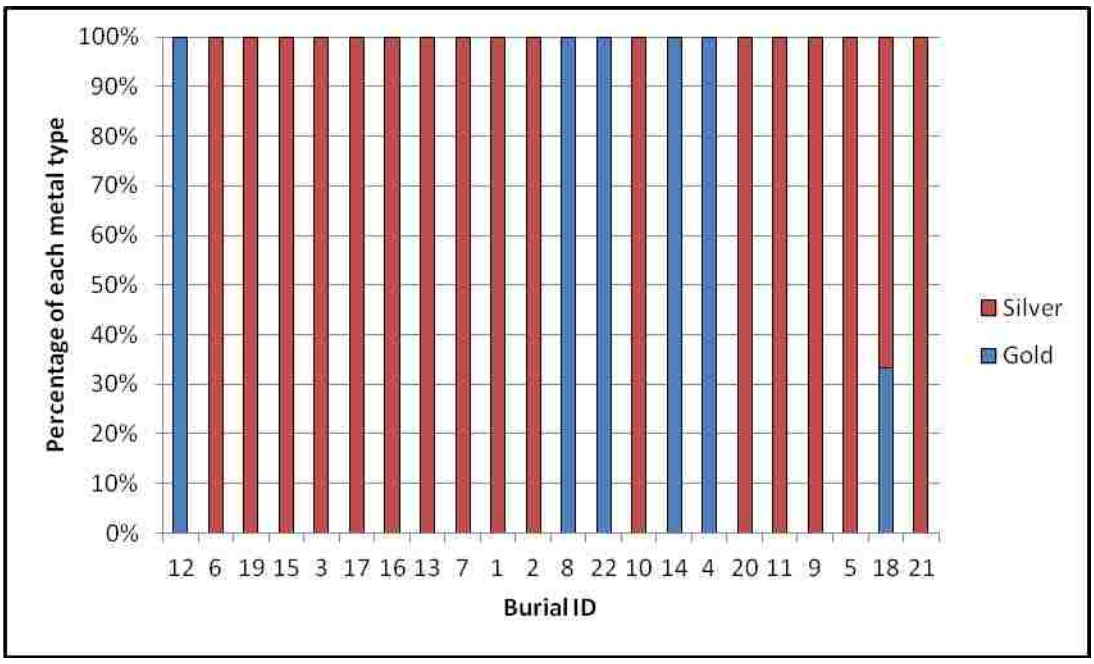

Figure 43: Graph showing the metal type of the coins in the burials, arranged by date (references: app. 6)

The graph hints at possible patterns, although these are difficult to confirm using so few examples. Silver appears to dominate in the earlier burials, with the exception of the gold *aureus* in the earliest burial from Jutland in Bæk (app. 6: 12). From the burials at Møllegårdsmarken onward (app. 6: 8), dated to between AD 210 and 320, there is the increased deposition of gold coinage. This coincides with the Severan devaluation of the silver coinage and the more limited presence of Roman coins in general in Denmark. If the coins are viewed as a reflection of wealth and status, it is possible that this increased use of gold can be linked to the decrease in silver content; to emphasise the position of the deceased a gold coin is chosen rather than the devalued silver. This is completely speculative and it seems more probable that the use of gold is linked to availability of coinage. Overall, there is no chronological pattern to the metal type of the coin deposited.

7.7 Location of the coin in the burial

Within the Danish database, the position of the coin is noted in 13 of the 22 graves. Table 32 shows the position of the coins divided by upper body (head and neck), central (around the torso/pelvis), lower body (from the waist down) and in a receptacle (urn). It should be noted that the four burials with the coin in an urn are cremations.

Position of the coin	Number of burials	Percentage of burials
Head	3	23
Central	4	30.8
Lower	1	7.7
Urn	4	30.8
Outside the burial	1	7.7

Table 32: Position of coins in the Danish burials (references: app. 6)

Overall a wide variety of locations of the coin are recorded, which suggest that the coin had a different meaning to different people. Only 23% of the burials have the coins recorded as deposited on or around the head, this is significantly fewer than in the provinces. It is possible that this is a local imitation of the Roman custom of placing coins on eyes or mouth of the deceased, but this is difficult to confirm, and the discussion in section 6.9 makes it seem unlikely. If coins around the head are intended as payment to the afterlife to a local deity, it appears that people believing this are in the minority.

Interestingly, 30.8% of the coins are found centrally within the burial, around the pelvis or beside a belt, suggesting that they may have been placed in a purse at the waist. During excavation of the burial from Rævekulebakke, the four coins were recorded as found with the remains of a receptacle by the belt of the deceased (app. 6: 2). This might suggest that they were provision for the journey or for continued existence in the afterlife. The lack of monetary economy in Denmark however, implies that their role may not have been this literal. The inclusion of 4 coins is rare and given that they are all silver, it is more likely that the coins were intended as a show of wealth and status. Whether there was the belief that these objects reflected the identity of the deceased in death, as they did life, is difficult to determine without a more detailed analysis of grave goods in this region.

It may be worth noting the burial from Nyrup in Sealand, where the three coins were found at the waist, along with the other grave goods (ap. 6: 18). One of the coins, a gold *solidus* dated to AD 337-350, had a suspension loop and was found with a necklace of 461 beads. The proximity of the coins to the other grave goods would suggest that it was being worn at the time of interment. It is possible that the coin

was being worn for aesthetic value, although it seems more likely it was used as a status indicator.

It is more difficult to interpret the coin supposedly deposited in the burial from Bennebo Mark in Sealand (app. 6: 13). It is described as 20 inches (42cm) east of the grave, making their association to the burial questionable. The burial was found and excavated in 1857, therefore the details are vague. But caution should be taken when interpreting this particular burial.

Overall, the variation in location of the coin suggests that there was no single reason for their deposition. Those around the head could be interpreted as a local adaptation of the Charon myth, but there is no other evidence from Denmark to suggest a belief in the ferryman or a local variation. Considering the metal type of the coins and the relative wealth of the other grave goods, it is probable that the coin was deposited to confirm the wealth and status of the deceased, and this cannot be identified through the location of the coin in the burial.

7.8 Pierced coins

Piercing of the coin changes its function and it no longer appears to perform a monetary function. Within the Danish database there are ten coins (34%) that are described as pierced or possessing a suspension loop, indicating that they were worn during life. This is in contrast to the burials from the provinces, where pierced coins are a rarity.

Two possible reasons for wearing a coin have been suggested in the previous chapters; it is part of a jewellery piece and is aesthetically pleasing or it has a symbolic function. A third could also be suggested for the coins in this area. They could have been worn in life as a reflection of the wealth and status of an individual. The metal type of the coins and the wealthy nature of the other grave goods would support this assessment.

Association between the other grave goods and the coins can help to distinguish between these possibilities. For example, Burial 209 from Skovgård in Sealand contained a silver *denarius* (encased within a bronze frame) which was part of an

elaborate necklace consisting of four bucket-shaped bronze pendants, 11 gold foil beads, 11 silver beads, nine bronze beads, 37 millefiori beads, 60 glass beads, 43 amber beads and one bone bead (app. 6: 19). In this example, it appears that the coin was included on the necklace for its aesthetic value, although this does not negate the possibility it was also a reflection of status. This is confirmed by Dyhrfjeld-Johnsen's observation that coins found on necklaces belong to the richest burials (Dyhrfjeld-Johnsen, *forthcoming*).

The pierced *denarius* from Burial 2 from Himlingøje was part of an elaborate necklace including bronze pendants, a silver amulet, a bronze ring, a gold bead, 7 silver beads, a bronze bead and 2 bone beads (app. 6: 16). This example is interesting as the presence of an amulet suggests that a supernatural power may have been associated with the necklace, and possibly also the other artefacts. They could be considered as providing a protective power for the wearer, perhaps a safeguard for their journey to the afterlife.

As discussed in section 6.4, a number of the coins have a long circulation period. Five of the coins, which have a circulation period of at least 100 years, have been pierced. Although unlikely for those coins at the lower end of this range, it is possible that some may be family heirlooms and were passed down through the family. For example, Burial 1 from Bregentved in Sealand, contained a *denarius* of Marcus Aurelius, which must have been in circulation for at least 145 years before being deposited.

Considering all the pierced examples, it looks unlikely that they are linked to payment of any kind, whether for guidance on the journey to the afterlife, or for the continued existence of the deceased when they got there. This theory is supported by the lack of evidence for a Scandinavian parallel to the Charon myth. It appears more likely that the coins were worn in life to confirm identity and show that the individual was of a higher status.

7.9 Associated grave goods

As mentioned above the other grave goods can be used to interpret the function of the coin. In addition, they may also shed light on the motivation of the people who

deposited the coins in the graves. Out of the 23 burials in the database, 19 contain information on additional grave goods.

There is no pattern to the number of grave goods deposited and it seems likely this is the choice of the individuals involved in the burial process. For example, burial 1716 from Møllegårdsmarken in Funen contained a *denarius* of Faustina and no other grave goods (app. 6: 11); whereas, Burial 2 from Himlingøje contained a long list of items, including an elaborate necklace, brooches, finger-rings and ceramics (app. 6: 16).

There are a wide range of artefacts found, including jewellery such as necklaces (comprising glass, amber, onyx, bone and bronze pendants/beads), arm-rings and finger-rings made from gold and silver. It should be noted that the jewellery is not confined to female burials. Other items include bronze, silver, ceramic and glass vessels; gold, silver and bronze brooches; bone combs; hair pins; bear claws, and in a number of cases un-worked gold fragments. The above include Roman imports and Germanic objects and, unlike those areas within imperial boundaries, reflect wealth. This supports the theory that Roman artefacts entered Denmark as part of diplomatic gifts or elite trade, and it seems reasonable to assume they were included in burials as status markers.

Parallels can be drawn between the bear claws found in Burial A from Varpelev in Sealand (app. 6: 22) and the Germanic practice of cremation in a bear skin. Schönfelder looked at a number of cases of the inclusion of bear claws and teeth in burials from Sweden to north Germany and as far west as England to identify their meaning (Schönfelder 1994). He concluded that these items could be considered as having the strength of the bear and therefore possessed magic qualities like amulets (Schönfelder 1994, 217). More relevant to this study is his conclusion that they are an elite item reserved for those with special status (Schönfelder 1994, 220). Dyhrfjeld-Johnsen argues a similar interpretation with the inclusion of two snake-headed gold arm-rings and two snake-headed gold finger-rings in Burial 17 as a marker of high status as they only appear in the graves of the uppermost elite (Dyhrfjeld-Johnsen, *forthcoming*). This supports the observation that, within Denmark, Roman coins are included in burials of the wealthy elite.

The inclusion of a silver brooch with a runic inscription in Burial 2 from Himlingøje in Sjælland can also be used as an indication of status. It has been argued that the development and use of the runic inscriptions was to distinguish themselves from the more "dominant Roman writing culture" and can be considered a "qualified writing culture" specifically linked to an "inter-Germanic aristocracy" (Stoklund 2003, 178).

Overall, the range of associated artefacts and the frequency of precious metal objects suggest that coins have been included in burials of high-status individuals. The coin, therefore, could be interpreted primarily as an indicator of the status of the deceased, although its symbolic value should not be underestimated.

7.10 Local adaptation of the custom

The area of modern Denmark was specifically chosen as a case study region, not only because it was located outside direct Roman rule, but also because it has produced evidence for a possible local adaptation of the Charon practice. Three burials in the database have evidence for this, with the deposition of a fragment of un-worked gold in the mouth of the deceased. As there are only three examples, each will be discussed individually.

Seven burials dating to the Roman Iron Age in Denmark have been discovered with glass in the mouth of the deceased, which has also been paralleled with the Charon custom (Dyhrfjeld-Johnsen, *forthcoming*). These are not included in the database in appendix 6, as they do not contain coins. They are however, relevant to this study, so have been summarised for discussion in table 33 on pg. 293.

The details of each of the burials will be considered to identify any commonalities, which might explain the presence of these objects in the mouth. Can they be legitimately equated with the Charon myth?

Gold in the mouth of the deceased

A small piece of gold was found in the mouth of the deceased in Burial 7 from Hågerup in Funen (app. 6: 7). The grave contained male remains and was dated to c. AD 210/210-250/260. In addition to the gold, it contained a silver *denarius* of Lucius

Aelius Caesar (AD 137), two Roman bronze vessels, a silver bowl, a Roman glass bowl, a Roman bronze sieve and ladle, a silver spoon, a wooden bucket, a gold finger-ring with an engraved onyx, gold spirals, silver tweezers, a bone comb, a silver spatula, silver belt-fittings, an iron sword and ceramic vessels (app. 6: 7). The coin was also found close to the mouth in this grave.

Burial 2000 from Brøndsager in Sealand also contained a piece of gold fragment in the mouth of the deceased. This was the burial of a juvenile male, which was dated to c. AD 250/260-310/320. The coin was a barbarian imitation of a possible *aureus* or *quinarius* of Antoninus Pius (although it could have been made much later); the coin had a loop attached and was part of a small necklace with three bucket-shaped pendants, two glass beads and an amber bead (figure 43). The other grave goods included two Roman glass vessels, two 59 glass gaming pieces, a gold finger-ring, a wooden buckle with bronze fittings, a bone comb, animal bones and three ceramic vessels (app. 6: 14).

Figure 44: Necklace from Brøndsager, grave 2000 (Boye 2009, 270)

The final example comes from burial 1949-2 from Himlingøje in Sealand, dated to c. AD 210/220-250/260. It contained the remains of a female and a piece of gold was found in the mouth of the deceased. The coin was a pierced *denarius* of Titus, dated to c. AD 80, and was part of an elaborate necklace (see figure 44). The other grave goods included five silver brooches, two gold armrings, two gold finger-rings, two Roman bronze vessels, a Roman bronze sieve and ladle, a Roman glass bowl, a silver hairpin, a fragmented bone comb, iron fittings and ceramic vessels (app. 6: 16).

Figure 45: Upper: excavation photograph of burial 1949-2 from Himlingøje (Horsnæs 2010: 59, fig. 23). Lower: cropped reconstruction drawing of the same burial, drawn by Alan Braby.

With only three examples, it is difficult to identify patterns. All the burials date to within the 3rd century AD, but since c. 60% of the burials in the database are dated within this century, this cannot be considered a pattern. They also come from different cemeteries, two in Sealand and one in Funen, implying that they are not the result of local traditions. In addition, no association can be made between the sex of the deceased in the three examples. The burials from Hågerup and Brøndsager both contained the remains of a male and the burial from Himlingøje contained the remains of a female.

A correlation cannot be established between the coin deposited and the placement of gold in the mouth. The burial from Hågerup contained an unmodified (it was not pierced or had a suspension loop) *denarius*, which must have also been deposited around the head. The coin from Brøndsager was a barbarian imitation of an *aureus* or *quinarius* with a loop attached and the coin from Himlingøje was a pierced *denarius*. This information implies that the coin was a separate consideration.

Glass in the mouth of the deceased

It is also worth considering those burials which do not contain coins, but do have a sherd of glass placed in the mouth of the deceased. The date of these burials to the Roman Iron Age, and the position of the glass in the mouth, suggests they might also be an imitation of the Charon custom. Before the details of the burial are discussed, it should be noted that glass was a luxury item in Denmark at this time (Horsnæs 2010, 69).

Table 33 provides details for the burials which contain glass in the mouth of the deceased:

Area/Cemetery	Age/sex	Date of the burial	Glass information	Grave goods	References
Engbjerg (4)	Female (20-40)	AD 250/260 - 310/320	c. 1.1 x 0.8cm; from a beaker	glass and amber bead hairnet, two necklaces comprising glass and amber beads, silver brooches, a bone comb and Roman glass vessels	Lund Hansen 2009, 174; Boye 2009, 278-286
Engbjerg (6)	Male (c. 50)	AD 200 – 250/260	c. 2.0 x 1.5cm; from a flask	two ceramic vessels	Lund Hansen 2009, 174; Boye 2009, 287-288
Engbjerg (12)	Female (6-7)	AD 250/260 – 310/320	c. 0.7 x 0.4cm; three sherds with no bubbles or ornamentation	gold finger-ring, a necklace with amber, glass and gold, and a silver-plated bead, bronze spiral beads, three bronze brooches, a gilt silver tutulus brooch, three ceramic vessels and animal bones	Lund Hansen 2009, 174; Boye 2009, 297-302
Engbjerg (18)	Female (c. 25)	AD 200 – 310/320	c. 1.0 x 0.5cm; partly decorated	silver hairpin, a bronze spindle whorl, bone comb, two bronze brooches, one gilt silver tutulus brooch and four beads of glass, amber and gold foil	Lund Hansen 2009, 174; Boye 2009, 309-312
King Svends Park (1001)	Child	AD 200 – 310/320	c. 1.0 x 0.5cm; two sherds, one had a hole in it and is part of a rim or the base of a glass vessel	necklace comprising 83 beads, glass beads in a pouch at the head, cup, ceramic vessels, two bronze brooches, fragmented bronze brooch	Lund Hansen 2009, 174; Boye 2009, 323-325
King Svends Park (1009)	Child (c. 4)	AD 200 – 310/320	c. 0.1cm; three fragments	bead necklace comprising 65 beads, glass pendant, burnished cup, 2 silver brooches, 2 bronze brooches	Lund Hansen 2009, 175; Boye 2009, 327-330
Højbakkegård (87)	Child (c. 1)	AD 200 – 250/260	c. 1.4 x 0.6cm; one sherd, no decoration	silver brooch, silver finger-ring, three-layer comb, ceramic vessel	Lund Hansen 2009, 175; Boye 2009, 354-355

Table 33: Table showing the details of the burials in which glass was found in the mouth of the deceased

The table has been compiled using the most recent publication of all the burials from Denmark containing glass vessels and sherds, by Lund Hansen (2009). The fact there are only seven examples implies that the inclusion of a glass sherd in the mouth of the deceased is extremely rare. It is possible that some burials with glass sherd(s) in the mouth have been missed in early excavations, but this is not thought to be a large number (Horsnæs 2010, 68).

As with the gold examples, little pattern can be identified in the examples. They come from three separate cemeteries, suggesting no geographical link. It is interesting that four of the seven burials come from the cemetery at Engbjerg; this could indicate a local tradition but this cannot be confirmed with so few examples. The glass has been deposited in both adult male and female burials and the graves of children, showing no connection of the age and sex of the deceased and the practice. Again, it is interesting that the majority of these are child and female burials, but with so few examples, this cannot be considered a pattern.

The burials do share some commonalities. All the burials date to within the 3rd century and the beginning of the 4th century AD. However, as argued with the deposition of gold in the mouth of the deceased, this is unlikely to be a significant observation since the majority of the burials date to this period. The glass sherds themselves are roughly similar in size and shape, suggesting a degree of conformity but this could simply be the maximum size to fit in the mouth cavity. The wealth of the other grave goods suggests that this practice is also confined to high status individuals.

Figure 46: Glass sherd from Burial 87 at Højbakkegård (Lund Hansen 2009, 175)

In summary, the placement of the gold and glass in the mouth is strikingly similar to the Roman Charon practice, but since no other evidence for Charon's fee has been found in Denmark, it is unlikely they are intended to pay the ferryman (Horsnæs 2010, 68). It is possible that this is a Danish adaptation of an observed Roman custom, which has been changed to fit the local ideology. Horsnæs suggests that the idea could have spread with contact with the Germanic cultures, such as at Thüringen, but is extremely sceptical of a direct association to Charon (Horsnæs 2010, 69). I completely agree with this assessment. It is possible that the custom is emulation of the Roman practice, but no evidence exists to suggest that the associated beliefs are the same. The gold and the glass could have been viewed as provision for the journey to the afterlife, which included the payment of a toll, but it is unlikely to be linked to the Roman deity. Horsnæs quite rightly points out that the coin offerings for Charon are connected with low value denominations (Horsnæs 2010, 69), an assertion which has been proven in chapters 3-5. If this was a direct copy of the Roman practice, then surely low value items would have been included in the Danish burials. This implies that if the idea was adopted from the Romans, the associated belief underwent a great deal of change in Denmark.

7.11 Conclusion

In conclusion, the placement of coins in burials in Denmark offers an interesting comparison to those within imperial boundaries.

A rapid uptake in the custom can be detected in c. 200-210AD, with one earlier exception, and it ceases from c. 400 onwards. This could be linked to the availability of Roman coinage, since this coincides with the period in which the largest number of coins is brought into the region. The dominance of precious metal coins suggests it is an elite practice. This is further emphasised through the associated grave goods, which tend to be high-status precious metal objects and include Roman imports. This could indicate that the coin was a symbol of wealth and status in this area and was deposited in the burial as a reflection of this. The value of Roman coinage outside imperial boundaries is difficult to ascertain (Horsnæs 2003, 338), but the above analysis has shown a definite link to the local aristocracy.

The pierced examples (a third of the dataset) and their direct association to other beads/pendants, suggest that they were included for their aesthetic or amuletic properties. These coins also have a longer circulation period and could be considered family heirlooms. The pierced coins are also likely to have been worn as a visible indication of wealth and status and offered in the grave as a continuation of this. Pierced coins could also be considered as possessing a symbolic power, where they may have been worn for protection in the afterlife.

In Denmark, the location of the coin in the burial is varied. This may indicate that the function of the coin is not confined to a single explanation. Relatively few are found around the head, most being found centrally within the grave, suggesting that if the coins are intended to imitate the Roman practice, it is difficult to link them to Charon. Some may have been held in a receptacle, such as a purse, but their interpretation is difficult. They could be for payment for the journey to the afterlife but could equally be provision for when the deceased makes it there.

The deposition of the fragments of gold and glass in the mouth have been interpreted as the emulation of the Roman practice, but there is no evidence to suggest that the

associated belief is the same. A more detailed study of afterlife belief and grave goods in Denmark would be required to confirm this.

Overall, a more varied interpretation should be considered when looking at those areas outside direct Roman control and influence.

Chapter 8 – Comparisons and interpretation

8.1 Introduction

The first aim of this work was to thoroughly examine the coins in the context of the burial, to give a better understanding of the observance and evolution of the custom of coin deposition, from the early imperial period to the end of the 4th century AD. This was achieved in chapters 4-7, the regional case studies. Within each of the case study regions, general patterns were identified and their significance discussed. Any irregularities were examined individually to determine why they might occur. The results of this were used to interpret the role of coins in burial ritual in the areas of modern Italy, modern Germany, modern Britain and modern Denmark (see chapters 4-7).

This chapter is a comparison of the practice in each of the regions studied, used to identify possible wide-ranging trends, and explain any significant differences. A comparison within the regional chapters has been avoided, so that their individual patterns can be identified, but arguably, the main value of this work is the analysis of the custom in multiple provinces.

- To compare the regions, the following will be considered:
- currency and coins in pre- Roman burials
- coin deposition over time and space, and spread of the custom
- metal type of the coin deposited in the burial
- comparison the date of the burial to the mint date of the coin
- pierced coins
- position of the coin in the burial
- associated grave goods

This will provide wider and more general observations of the practice; are the same patterns identified in each of the regions studied?

The end of this chapter will focus on the interpretation of the function of the coin in burial ritual. Are most coins deposited in observation of the Charon custom, or can alternative explanations be presented?

8.2 Currency and coins in pre-Roman burials

The introduction to each of the regions gave a brief overview of the deposition of coins in pre-Roman burials. Although this was not the focus of the work, and could not be examined in detail, it has been extremely informative in understanding the evolution of the practice in the imperial period.

In Etruria, small bronze ingots (*aes rude*, *aes signatum* and later *aes grave*) have been discovered in burials dating to as early as the 8th century BC, and are most frequently at Etruscan sites. These continue to be deposited until the 4th century BC, when they fall out of general circulation and are replaced by coinage (Bergonzi and Agostinetti 1987). This change can be observed in both burial and settlement contexts (Leighton 2004, 155). Initially, this practice is confined to the male warrior class but evolves to also include upper class females.

Determining the function of these ingots is difficult, since there is no textual or artistic evidence to suggest that they are payment to a deity. Given that they are confined to burials of wealthier individuals, it is more likely that they were included as an expression of identity, perhaps status markers. Unfortunately these suggestions are speculative, as their function is not something which can be investigated in detail in this work, but this evidence highlights that the inclusion of currency in burials has origins much earlier than the Graeco-Roman world.

The earliest burials containing coins in Italy date to the middle of the 4th century BC, and are found in cemeteries at Greek colonial sites, such as Paestum and Metaponto (Bergonzi and Agostinetti 1987). This evidence suggests that the deposition of coins in burials may have originated in Greece and been brought to southern Italy with the colonists. Unfortunately, it was not possible to investigate the earliest origins of the custom, this would take a PhD in itself, but since coins are found in burials dating to the middle of the 5th century BC in Greece, such as at Corinth (Palmer 1964, 84,

238), until earlier evidence in Italy is discovered, an origin in Greece must be the working assumption. However, as stated above, currency as grave offerings does appear in Italy much earlier, an important factor which should not be overlooked. Perhaps since a variation of the custom already existed in Italy, the uptake in practice was easier.

The function of the coins is more difficult to determine since their meaning could be a combination of beliefs from a number of different sources. As discussed above, there was a pre-existing tradition for the deposition of currency in burials. It is entirely possible that the reason for their inclusion, whether it was an expression of identity or provision for the journey to the afterlife, was transferred to the coins; implying that the practice could be influenced by local tradition. The introduction of Charon into Greek literature in the 6th century BC and his 'fee' in the 4th century BC, suggests that the use of coins in burials in Greece has a strong connection to Charon mythology. Therefore, the coins in burials at Greek colonial sites could share this affiliation. Closer examination of the practice in this period would be required to confirm to what extent it is based on local traditions and/or Greek influence but it does highlight that this is a complex topic, and it should never be assumed that the deposition of coins in burials is the same throughout the Graeco-Roman world.

The study of the pre-Roman practice in Germany was based on the work of Hartmut Polenz (Polenz 1982), who examined evidence for the custom between 300 and 50BC in Middle Europe. For the area of modern Germany, 13 burials contained coin offerings. The earliest examples date from the 3rd century BC, with the practice continuing until the end of the Republic. Analysis showed that, like the other case study regions, the practice in the pre-Roman period was rare, but did exist. Copper alloy, silver and gold coins are all deposited, although the wealth of the other grave goods suggest this practice is limited to the upper levels of society. At this early date, it looks likely that the coins are used in burials as a status marker, indicating contact eith the Roman world. Any possible links to mythology require further investigation into the theological beliefs of pre-Roman Germany, but it is highly unlikely that they are intended as payment to Charon. Although these examples are later than in Italy, they remain evidence for the practice prior to Roman contact in the 1st century BC.

A pre-Roman tradition for the deposition coins in burials cannot be identified in Britain. Each of the possible examples has been dated to the period of conquest and therefore after Roman contact. This suggests that, unlike Italy and Germany, the practice has been brought to Britain by Roman contact. As mentioned in Chapter 6, from the time of Caesar, Roman material culture began to arrive in Britain and a change in elite burial practices can be detected (Creighton 2006, 19). The evidence in this work suggests that coins in burials may be part of this. It would imply, therefore, that the earliest observation of this custom in Britain is also linked to identity and social status, as opposed to payment of a specific deity.

There are no known pre-Roman burials containing coins in Denmark, but considering that their economy was not based on coinage, this is perhaps to be expected. It is possible that the use of coins is a continuation of an earlier form of payment, but without a thorough study of pre-Roman burial practices in Denmark, this cannot be confirmed. Discussion of coins in modern Denmark (chapter 6) suggests that the coin is not included for its monetary value and instead it is used as a display of wealth and status, identity and possibly also Roman contact.

In summary, evidence exists for a pre-Roman tradition of depositing coins in burials, but within this work, this is limited to Italy and Germany. To fully understand the function of the coins, a detailed analysis of the pre-Roman custom would be required; but a number of suggestions can be made. Considering the wealth of the other grave goods, it is probable that they are linked to identity and perhaps included as a display of wealth and status by the family on behalf of the deceased. The coins could have been included as provision for the journey to the afterlife, but no evidence exists to suggest that the practice is linked to the payment of a deity. Unfortunately, once again, a detailed study of burial ritual in the pre-Roman period would be required to confirm these hypotheses.

8.3 Changes in coin deposition over time and spread of the custom

Investigation into the custom in the imperial period began with an analysis of chronological distribution of burials containing coins. The aim was to observe how the custom changed over time in each of the case study regions (see chapters 4-7). In this chapter, the individual patterns will be compared. It is hoped this can be used to track the spread of the custom and detect wide ranging patterns.

Figure 47 shows the chronological distribution of burials containing coins from Italy, Germany and Britain. It also includes the revised percentages from Germany, omitting the cemetery at Wederath-Belginum, as arguably, it is more representative of the overall pattern in the area. It should be noted that 'BC' refers to the early imperial examples and does not include the pre-Roman burials.

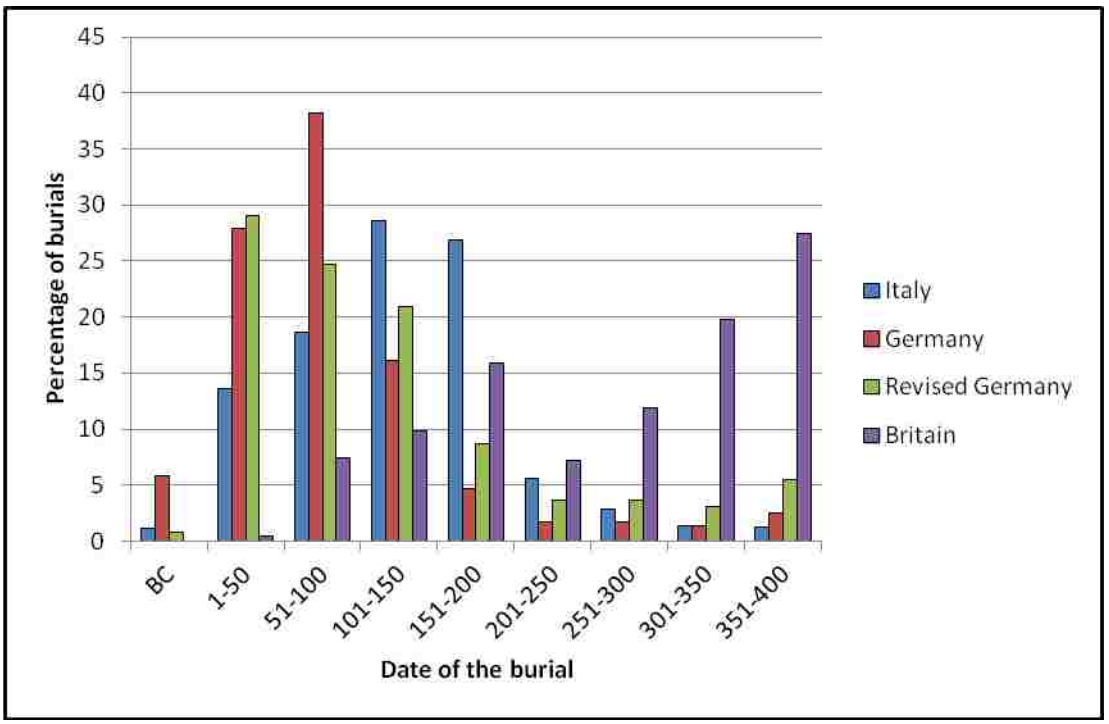

Figure 47: Graph showing the chronological distribution of burials containing coins from Italy, Germany, revised Germany (omitting Wederath-Belginum) and Britain (references: app. 3-5)

Overall, each of the regions followed a roughly similar pattern. They all show a rapid increase in the custom when it is first introduced, followed by a peak, before a gradual decline and the practice remains low. The only exception to this is Britain, where there appears to be a resurgence in the custom from the 3rd century AD.

Although the overall patterns appear to be similar, differences can be detected in the time periods when the custom is introduced, when it peaks and when it begins to decline. In Italy and Germany the custom begins in the early imperial period, to be expected when considering that they were subject to direct Roman contact at this time. A survey of the republican custom would be required to confirm this in Italy. In Britain, the custom is not introduced until the first half of the 1st century AD, also to be expected since the area did not become a province until AD 43. The evidence from Italy and Germany shows continuity between the pre-Roman and the imperial periods, although notable is the significant increase in the number of people observing the custom.

The peak in the custom also occurs at different times in each of the regions. In Italy, after an initial jump in the number of people observing the custom between the early imperial period and the first half of the 1st century AD, the frequency of the custom gradually increases to a peak in the first half of the 2nd century AD. In Germany, the custom rapidly increases in the first half of the 1st century BC and immediately reaches its peak in the first half of the 1st century AD. As mentioned above, the patterns are slightly different in Britain. An initial peak can be observed in the second half of the 2nd century and a second peak, greater than the first, at the end of the 4th century AD.

Differences can also be detected in the decline of the practice. In Italy, the peak in the custom is not so prominent; instead the custom remains frequent and is chronologically spread out over a longer period. It is not until the first half of the 3rd century AD that a significant decrease in the practice can be detected. From this point onwards, the custom remains constant but low in number. Using the revised percentages for Germany, the decrease is much more gradual, with the most notable drop between the periods AD 101-150 and AD 151-200. Like Italy, the frequency of the custom remains low but constant. In Britain the decline does not last long and the custom gradually increases from the second half of the 3rd century AD. It is perhaps notable that this also occurs at a time when there are fewer coins in circulation (see figure 38 in Chapter 5, section 5.4.8) and could be linked to the availability of coinage, as opposed to a change in practice.

The chronological distribution of the practice in Denmark is very different. Coins in burials do not begin until the start of the 3rd century AD, with the exception of the burial from Bæk in Jutland, (app. 4: 12) which dates to between the middle of the 1st and the middle of the 2nd centuries AD. None of the burials have been dated to later than c. AD 400. Considering that this is the period in which there is the greatest influx of Roman coinage into Denmark (see Chapter 6, section 6.2), it is possible that this is linked to the availability of coinage.

Overall, some general trends can be observed throughout the study region. The evidence shows in the Roman period, the deposition of coins in burials gains popularity and momentum. It appears that the custom is transmitted with permanent Roman contact (evidenced by the later uptake in Britain) and is initially quite popular. This could be because it is a new practice or because it has links to Rome.

A decline in the custom is also identifiable in each of the provinces, although it does not necessarily indicate a widespread change in belief. Despite the similarities in the overall patterns, the frequency of the custom differs in each of the regions and the decline happens at different times. In addition, the resurgence of the custom in Britain is not a phenomenon observed in Italy or Germany. It is appropriate to assume that if there were an empire wide change in belief, this would be detectable first at the centre of Roman rule in Italy and soon after in the provinces. Instead, they seem to indicate traditions specific to that region. Comparing these patterns against burials in the other provinces would help to test this hypothesis, and is considered under further work in Chapter 9, section 9.4.

8.4 Difference between coin and burial date

The comparison of the mint date of the coin against the burial date was used to ascertain whether the coins being deposited were taken from those in general circulation. Is there evidence to suggest that they were being specifically chosen?

As with the previous section, the same general trend can be identified in the case study areas. In each of the regions studied, there is little recognisable difference

between the coin and the burial date, with between 70 and 80% of the coins dating contemporary with the burial. This percentage decreases significantly the longer the coin has been in circulation with less than 5% of the burials containing coins minted more than 100 years before the burial.

Analysis in the chapters 3-5 has shown that the longer-lived coins tend to be silver, which have a slightly longer circulation period, especially the Republican *denarii*. Therefore, they could have been in circulation at the time of burials and although may have been chosen based on their metal type, there is no evidence to suggest that they were chosen because of their mint date. Some of the early coins have been pierced and probably worn as part of a jewellery item. It is possible that the coin was pierced because it had an early date, but this is extremely difficult to determine. What seems more likely, perhaps, is that the coin was pierced because it had certain significance to the wearer and was handed down to other family members as an heirloom. The pierced coins are discussed in more detail below, in section 7.8.

The coins in the burials in Denmark have a much longer circulation period. In contrast, only 31.8% of burials (7 out of 22) have coins dating contemporary with the burial. The remaining 15 burials contain coins which had been in circulation for at least 33 to 165 years before being deposited in the grave. Five of these coins have been pierced or had a suspension loop attached, which could account for their early date. As with the Roman examples, it is possible that as exotic items, they were handed down as heirlooms. However, since it would take time for the coins to reach Denmark, and that secondary circulation has been argued in this region, it is probable that coins simply have a longer circulation period and it is unlikely that they are deposited based on mint date.

In summary, coins dating contemporary to the burial are most frequently deposited, therefore must have been taken from general circulation. This suggests that the coins were not specifically chosen based on their mint date, and it is more likely that it is the symbolic act of offering the coin which is important, and not the particular example used.

Within each region, there were some notable irregularities where the coin has been in circulation for over 100 years before being deposited in the burial. Since silver coins have a longer circulation period, these are perhaps to be expected, although more unusual are the copper alloy examples. The circulation period of copper alloy coins varies by time period and by region and it is difficult to determine whether these coins have been included because they have an early mint date. Some of the long-lived coins have been pierced and it is more likely that they are early in date because they have been removed from circulation to be used as part of a jewellery item.

8.5 Metal type of the coin

The metal type of the coin was investigated to identify which coins were most commonly used and whether a specific denomination was required as part of the ritual. How does this compare in the different provinces and outside Imperial boundaries? Are there notable differences?

The provincial regions continue to follow the same overall patterns. Copper alloy coins dominate, totalling over 97% of the coins in Germany and Italy and c. 70% from Britain. This substantiates the assertion above that the specific coin used for the grave does not appear to matter; it is the observation of the custom which is important.

The deposition of silver coins and *antoniniani* is much less common, comprising less than 3% of the remaining coins from Italy and Germany. In Britain the pattern is slightly different. The use of silver coins is still uncommon, but much higher than the other two provinces at c. 18% silver and c. 7% *antoniniani* of the total coins in the database. A further difference is the gold coins, which appear in four burials in Britain. The reason for the increased use of gold, silver and billon coins in Britain in unclear. It is possible that this is a local tradition, confined only to Britain, a hypothesis which could be assessed by investigating other provinces with the Empire. Overall, however, is likely that the metal type of the coin was the choice of the individuals involved in the funeral process and in the vast majority of burials, the evidence implies that there was an attempt to retain the most valuable coins.

The study of the metal type over time is also comparable. As expected, copper alloy coins dominate throughout the period of analysis, with the majority of silver and billon coins deposited in the early imperial period (most often Republican *denarii*) and to the 4th century AD. The inclusion of silver coinage in later burials has been explained by Gorecki as a reversion back to the display of wealth and status of the deceased (Gorecki 1975, 242). This is a possibility, but there are not enough examples to confirm. A more in depth comparative study of later burials would be required, considering both graves with coins and those without, to ascertain what constitutes a wealthier burial in this period.

In contrast to the provincial data, there are no base metal coins in burials in Denmark. Discussion of the presence of coins in Denmark in chapter 6, section 6.2, highlighted that there was no monetary economy in this region, based on low value coins. Instead, Roman coins are used as part of gift-exchange between the elites within societies, used to establish trade links or political alliances (Wells 1992, 178). The lack of copper alloy coins is perhaps to be expected. It confirms that the function of the coins in these burials is completely different to those within the Empire; they are not linked to religious belief but are used as an indicator of wealth and status. Interestingly, this pattern in repeated in other regions of *barbaricum* with a "clear bias" towards silver in north-west Germany (Wigg-Wolf 2008, 38).

In summary, the dominance of base metal coins confirms the conclusions in section 7.4, that the most commonly available coins are being deposited in burials. This is further evidence that it is the observation of the custom which is important to those involved in the funeral and not the specific coin being used. This appears to be common in the symbolic offerings of coins, with copper alloy coins comprising the majority of coin offerings at springs (Sauer 2011, 517).

8.6 Number of coins in the burial

The number of coins deposited in a single burial was investigated to determine how many were most common. Interestingly, this is one analysis where much more variation within imperial boundaries can be observed.

Deposition of a single coin is most common with c. 80% of the burials in each of the study regions containing one coin. Significantly fewer burials contain multiple offerings, with two or three most common, although the inclusion of up to five is not unusual. Within each region, there are exceptions to this trend with evidence for burials containing between 12 and 36 coins. Little commonality in these examples can be identified.

The chronological study of the number of coins in burials has shown no similarity between the areas investigated. In Italy, anything up to four coins are found throughout the period of analysis, with those burials containing significantly more coins dating to both the 1st and the 4th centuries AD. In Germany, a clustering of burials with more than one coin is identified in the 1st century AD, suggesting that multiple coins are used when the custom is first introduced. In Britain, the clustering of multiple coins occurs at the end of Roman occupation in the 4th century AD. Since more burials in the database date to this period, it is possible that it has caused a clustering of multiple offerings at this time. This observation could be tested using a larger database to see if the patterns are replicated. If they are, it would confirm a change in practice.

No evidence exists to explain the reason for the deposition of more than one coin. It is possible that each coin has a different function. Perhaps one can be considered provision for the journey (including payment to Charon), and the other has symbolic properties, such as protection for the deceased. Where 12 or more coins are included, these could be considered a collection by the family and friends, or even a wider community, for use by the deceased in the afterlife. Perhaps the individual had a special significance to these people, and this was a way that the mourners could participate in the burial process and aid his/her journey to the afterlife. It could also be suggested that the coins are intended as a reflection of the identity of the deceased, perhaps showing a position of wealth and status. Evidence for this is rare in the database, suggesting that within the provinces the number of coins deposited is not an obvious reflection of social position.

In those areas outside direct Roman rule, the inclusion of a single Roman coin is standard. There are two burials in Denmark that have more than one coin and in both of these cases the coins are found centrally in the burial; in one of them they are noted as in a receptacle at the waist. In these cases, the increased number seems to be related to their monetary value, perhaps as a way of asserting identity and showing affiliation with the Roman world. The lack of the circulation of Roman coinage in this area would probably result in the use of a single coin in the burial.

Overall, the offering of a single coin is most common in each of the regions studied. The use of between two and three is less frequent, although identified throughout the period of analysis in every area. Little correlation can be identified in the use of multiple coin offerings over time. Clustering of multiple offerings is identified in Germany and Britain but at different points in time. It is possible that this could be linked to the higher number of burials in the database dating to this period, but could also be attributed to regional traditions, a suggestion which would benefit from further work. The most significant differences come from the comparison to Denmark, where the use of the single coin is most common.

8.7 Location of the coin in the burial

The location of the coin within the burial is one of the most important considerations when looking at this practice. It is within this study that the greatest variation within a single region can be identified and the results can be used to interpret the function of the coin. As discussed throughout this work, it is often argued that the placement of the coin on, or close to, the head or eyes of the deceased is intended to be Charon's fee. This hypothesis is based on the literary sources, which have been discussed in Chapter 3. It is not the intention of this section to dismiss the importance of 'Charon mythology', but instead consider all the locations in which the coin is found and suggest that a single mythological belief cannot account for every incidence of coins in burials. The suggestions for the function of the coins, although speculative, are intended to widen interpretation, as opposed to confine it to a single explanation.

Between c. 40 and 50% of the burials containing coins in each of the regions studied has one or more coins deposited at the head of the deceased. This confirms that it is the most commonly used location. It may be interesting to note that the most frequently used position of coins in the earliest burials in the Greek colonial sites in Italy is also the head; although this is significantly higher. For example, at Metapontum, of the 23 burials with the coin location recorded, 78% of these were on or around the head. Of the other 22%; 9% were found in the hands and 4% at the upper leg. The remaining 9% of burials contained multiple coins, found at different locations of the body; in both cases there was a coin at the head and the other around the torso (Bergonzi and Agostinetti 1987, 186). This is further evidence to suggest that the custom may come from Greece, since similarities in the practice can be identified, although further work is required to confirm this.

If all of the coins around the head are intended as payment to Charon, an assumption which is difficult to confirm or dismiss, it implies that at least 50% of the burials subscribe to this mythology. Gorecki suggests that coins placed in the hands, could also be considered as payment to Charon, given that the hand would be the medium of transfer (Gorecki 1975, 242). I am less convinced by this assertion. Coins in the hand could be intended as provision for the journey, but there is no evidence to suggest that they were specifically for Charon. However, if they were intended to pay the ferryman's fee, significantly fewer of burials have coins in the hand, and when added to those in the mouth, they still comprise less than 50% of the burials. This implies that at least half of the burials containing coins do not appear to be observing Charon mythology and alternative interpretation for the role of the coin should be investigated.

A high proportion of the coins are also found around the waist of the deceased. These were most likely placed in a pocket or a purse at the waist. The percentage of coins found in this location differs in each of the case study areas: 24% in Italy, 17.3% in Germany and 7.2% in Britain. As these burials normally contain more than one coin, it could be argued that the coin was given to the deceased as provision for the afterlife; whether this in for the journey or intended for use in a monetary economy in the afterlife, is unclear. Given the use of arm purses (Birley 1963), it is also

possible that those found around the arms can also be argued as having a similar meaning. In these cases the coins are being kept together and could have been collected by the family and friends of the deceased to ensure a good afterlife.

The number of coins found in the fill of the burials is interestingly high and all examples cannot be attributed to accidental loss and it is likely that they were thrown in by mourners at the funeral. The number in each region varies with 6.4% from Italy, 10.3% from Germany and 19.7% from Britain. Reasons for their inclusion are speculative, but since so many occur, some explanation should be attempted. Throwing the coins into the grave during the filling of the burial could be a way by which the living can participate in the burial process and their function could relate more to comfort for the living as opposed to use by the deceased. They could be intended as a personal contribution for the payment of Charon's fee, but since the coin is not in direct contact with the deceased, I suggest that this is unlikely. An important consideration is that they were included as protection for the deceased, both for the journey and for their new existence in the afterlife.

In those areas outside direct Roman control, far fewer coins are found around the head, only 9%, with many more discovered around the torso of the deceased (33%). It is likely that these were also in a pocket or a purse at the waist, with the remains of a receptacle at the belt of the deceased found in the inhumation from Rævekulebakke in Bornholm (app. 6: 2). Given the lack of a monetary economy, it is unlikely they are intended to pay someone specific and were perhaps included as an assertion of affiliation to Roman cultural identity and a status symbol. It is highly unlikely that the practice is linked to Charon and the coins should be seen as a reflection of wealth and status.

Interestingly, Denmark has evidence for the deposition of fragments of gold and glass in the mouth of the deceased. This has been compared to the Roman custom, although links are tentative at best (see discussion in Chapter 6, section 6.9). It is possible that the practice was observed and copied, but it cannot be assumed that these objects are in observation of the same mythology.

In summary, the variety that exists in the location of the coins in the burials suggests that not all the coins are intended as payment to Charon for transport to the afterlife. If there existed a single belief in relation to coin offerings in burials, this variety would not be detected. Around 50% of the burials have the coins recorded as found at the arms, the waist, the feet, within a vessel, used on jewellery and found in the fill. Where more than one location is used in a single burial, it is possible that the coins have a different role in burial ritual.

In contrast, the evidence from Denmark shows that the majority of coins are found around the torso. Interpretation is difficult based only a few examples, but is it unlikely that they are linked to Charon mythology. Placement at the waist suggests that they were in a pocket or purse and seem to perform an economic function. Given the limited circulation of Roman coins in Denmark, it is probable that they were intended as a display of status and contact with the Roman world. The deposition of fragments of gold and glass in the mouth in other burials has been viewed as a parallel of the Roman Charon mythology. It is possible that these individuals had contact with the Roman world and are imitating the custom, but it is unlikely that they are intended to pay the ferryman. Another possibility is an independent, but similar, myth in Scandanavia.

8.8 Pierced coins

The piercing of a coin changes its meaning and it can no longer be considered as performing a monetary function. Pierced coins are a rarity in all of the case study regions with only seven examples from Italy, four from Germany and 12 from Britain.

The type of coin pierced and deposited in the burial varies in each of the case study regions. In Italy, the majority of pierced coins are copper alloy, although pierced *denarii* and *antoniniani* can also be found. In Germany, all the pierced coins are copper alloy. In Britain, the pierced coins are copper alloy and silver (including *antoniniani*). Notable perhaps, is that none of the gold coins have been pierced.

It is difficult to determine why a coin would be pierced, since the reason is specific to the individual piercing the coin. It could be argued that the silver and billon coins are more aesthetically pleasing on a jewellery item, and could be why they occur in both Italy and Britain. More surprising, perhaps, are the pierced copper alloy coins. It is possible that these were also considered aesthetically pleasing and could be all that the individual were willing to sacrifice. However, the rarity of pierced coins implies that wearing a Roman coin was not a popular tradition, suggesting that the choice to do this was much more personal. For example, the year in which the coin was minted could be a reminder of an important event, or the images on the coin could be significant to the wearer. The associated grave goods can aid interpretation and two suggestions are made as to the function of pierced coins. The first is that they are worn as jewellery for aesthetic reasons, and the second is it they brought protection to the wearer, in both life and death.

The connection of the coins to other beads on a jewellery item supports the first suggestion and it is likely that the coin was pierced because it was aesthetically pleasing to the wearer. It is impossible to determine whether the jewellery belonged to the deceased or whether it was given to them on death, and the possibility that the function of the coin changes at this point should be considered. If the coin belonged to a family member, it could be a way by which the individual could sacrifice something that belonged to them, perhaps to give comfort in the afterlife or aid safe transport there.

The second possible function of the pierced coins is that they had symbolic or amuletic properties. The suggestion by MacDonald that the eye of the Emperor on the obverse of the coin may have had apotropaic properties (MacDonald 1979, 409) is an interesting consideration, although difficult to confirm. In the British database evidence exists for the deposition of pierced coins alongside other possible amulets. These are rare but in the few cases, the coin is connected to a pierced dog canine tooth appears. One example in particular, Burial 228 from Butt Road, is interesting as it contains a collection of possible amulets together with three pierced coins (app. 5: 64.4). These were a head of an African male in amber, a canine tooth, a bell and a suspended phallus, all pierced and found together on a chain link inside a purse. The

placement of these items in a purse suggests that they were not on display and may be very personal to the deceased. Their individual meanings are impossible to interpret but they could be compared to a modern charm bracelet, with each of the amulets representing an important period in the life of the deceased. Although looking at the Bronze Age, Woodward has suggested that amber beads found in burials could be considered heirlooms "derived from ancestral necklaces" (Woodward 2002, 1043). This is entirely possible considering the range of items in this burial and could also account for those pierced coins which have a longer circulation period before placed in the burial.

Where the burials have been sexed, the pierced coins tend to appear in female graves. This is to be expected given that the jewellery items most likely belonged to women. However, a second trend is also noticeable, the inclusion of pierced coins in infant burials. Interpretation is of course speculative but some explanation is required. The evidence shows that these were most likely jewellery items. It is possible that the coins may have belonged to a family member, perhaps the mother, and included as a source of comfort for the child on their journey to the afterlife. It may also be important also for the mother to know that something of theirs is travelling with the child, perhaps offering some protection for the journey. It is possible that the jewellery items are family heirlooms and the child would have inherited them anyway and so have been given to them upon death. Infants cannot be sexed and a further possibility is that the pierced coins are only placed in female burials, unfortunately this cannot be confirmed.

In Denmark, 10 of the 22 burials in the database (42%) contained pierced coins or were fitted with a suspension loop. Of course, the statistics are a little distorted by the lower numbers of burials, but nevertheless this is a high percentage. As with the imperial period examples, it is possible that they were pierced and worn for their aesthetic value. Since all the coins are silver or gold, this is a distinct possibility. However, given the limited circulation of Roman coins in Denmark, and the frequency of pierced examples, it is more likely that they were intended to be worn as a visual display of status and connection with the Roman world.

In summary, the pierced coins within imperial boundaries have two possible functions; they can be part of a jewellery piece or have symbolic value. The connection of the coins to beads and amulets help to make a distinction between each possibility. A noticeable trend is the inclusion of coins in female and infant burials. As the infant remains cannot be sexed, it is not possible to ascertain whether they were only included in female burials. Function in child burials may be more complex, and it is difficult to determine if the coin belonged to the child or was given to them by a family member. What can be said for certain is that these coins have nothing to do with Charon and should be considered individually, in the context of the burial, to determine their specific function.

Outside imperial boundaries pierced coins are, in relative terms, much more common and are not confined to female burials. It appears likely that these coins were also worn in life and are a demonstration of wealth, status and contact with the Roman world.

8.9 Association to other grave goods

In the regional chapters, the other grave goods were considered to investigate whether they could aid interpretation of the coin and determine which level of society was observing the custom.

The pierced coins were the first to be investigated. As discussed in detail above, the associated grave goods can be used to make a distinction between those coins included as jewellery and those which could have a possible symbolic function. For example, in Italy, Burial 7/11 from Sub Ascia in Modena contained evidence for fragments of a necklace, suggesting that the coin was part of a jewellery piece (app 3: 9.29). In Germany, Burial 10 from Wederath-Belginum also contained a glass bead part of the same jewellery item as the coin (app. 4: 3.2). The evidence from Britain is much more substantial. Five of the burials contained coins which were likely to be part of a jewellery piece, where the coin was found still attached to a bracelet and/or other beads (app. 5: 64.1, 64.3, 64.5, 64.7 and 71.4). In addition, two of the burials were connected to other amulets and could be considered as possessing a symbolic value (app. 5: 64.4 and 211.5)

The investigation into the wealth and status of those observing the custom within Italy, Germany and Britain was more difficult, as it is not always possible to identify which grave goods are indicative of wealth. Within the regional chapters, little correlation could be made between the grave goods and the social status. Precious metal did appear in the database but its frequency was low, in most instances these are jewellery items such as fingerings and earrings. It is possible that they indicate higher status burials, although the rest of the assemblage contains similar items to the burials in the rest of the database. There is little evidence to suggest that only excessively wealthy individuals, or the very poor, were depositing coins in burials and it is likely that every level in society was observing the custom.

There are a number of exceptions to this rule, where burials contain more valuable objects. In Italy, Burial 56 from Sub Ascia in Modena included two silver rings, a bronze brooch and a Samian vessel (app. 3: 9.25) These are not excessively wealthy when considered individually but when compared to the other burials from the region, suggest that they could be wealthier individuals. A similar argument can be made for Burial 1 from Brühl which contained five coins (two copper alloy, two *antoniniani* and a silver coin), glass vessel, small figures and animals in bronze and a knife with a bone handle and gold studding (app. 4: 15.1). An example from Britain is Burial B291 from West Tenter Street in London which contained nine *antoniniani* and two *denarii* as well as a silver coin, a copper alloy and a jet bracelet, three intaglio, an emerald bead, a green glass bead, bone dices, silver foil, iron fittings, a copper alloy sheet, hobnails and a jet bead (app. 5: 132.1).

A marked different can be seen when comparing the provincial data to Denmark. The use of precious metal coinage suggests that the burials are of those of a higher status in society. The fact that there are fewer examples than the Empire supports this assessment. Chapter 6 has shown that the other grave goods include valuable and high status objects including jewellery, brooches and Roman imports. The presence of elite status markers such as bear claws help to confirm that these are high status burials of wealthy individuals. Therefore, the coins could be viewed as a status marker, indicating contact with the Roman world.

To conclude, the associated grave goods can be extremely useful in interpreting the presence of coins in burials. With the pierced examples they can help make a distinction between aesthetic and amuletic properties, although there remains the possibility that the jewellery item can change function when placed in a grave, especially the infant examples. Interpretation of social status was a lot more difficult. Overall, the grave goods vary within each of the areas, suggesting that every level in society is taking part in the custom.

8.10 Function of the coin

The above comparisons have shown that the practice in each of the regions studied follow the same general patterns, although differences can be identified when looking more closely at the data. This suggests that the role of coins in burial ritual is very similar throughout the areas studied, but the existence of variation implies that not everyone is following the same practice.

In each of the subsections, an attempt has been made to interpret the function of the coins based on the observed patterns and irregularities. This section will bring these interpretations together, to suggest alternative functions of the coin and give a better understanding the role of coins in Roman burial ritual. To reiterate, this is not intended to dismiss Charon theory, but instead show that a single explanation for the deposition of coins in burials is not adequate to deal with the variation in practice that can be identified.

The first to be considered is Charon mythology, that the coins are deposited in burials as payment to Charon for transport to the afterlife. As discussed in Chapter 3, this is based on the evidence from the ancient literary sources, it is a general assumption that the placement of coins on the eyes or the mouth is in observance of this custom. Investigation into the location of the coin in each of the study regions has shown that c. 50% of the coins have been found around the head. If the placement of coins at head of the deceased is intended as payment to Charon, this confirms that at least half of the burials from each of the regions are offering coins as payment. One can never be certain that every coin deposited at the head is intended

for Charon, but if being cautious, this still means that c. 50% of the burials in the database may contain coins for a different reason. It would be appropriate, therefore, to consider the coin in the context of the burial and the other grave goods, to determine if the coin is indeed intended as payment to Charon.

Provision for the afterlife does not necessarily mean that the coin was included for Charon. If the grave goods are intended for use by the deceased in the afterlife, then the coins could be considered as part of this. The coins could be included as provision for journey, one that does not include Charon, or for use in the afterlife. This would require the belief that the afterlife was similar to contemporary society and it is difficult to find evidence for a belief in this. It would also mean that the coins were included for their literal value and, since low value denominations are most frequently included, is one of the more questionable interpretations for the function of the coin. Nevertheless, the possibility should be considered.

The piercing of the coin is the most identifiable method by which the coin changes function. Where this occurs, the coin must be considered in the context of the other grave goods so that a distinction can be made between the coin as a jewellery item or as an amulet. If the coin is found attached to a necklace or bracelet, it is not a stretch to assume that it was included as a jewellery piece. In a number of burials, beads and other pendants are also found, which supports this hypothesis. Reasons for the piercing of the coin are discussed under section 8.9.

The piercing and wear of the coin for symbolic purposes should also be considered. Most evidence for this comes from the British database, with two burials containing pierced coins directly connected to other amulets. The relationship between these objects suggests that the coins also had a symbolic function and are unlikely to be included as jewellery. The exact role of each of the amulet is impossible to decipher, but protection for the deceased seems an appropriate suggestion. It cannot be known if the charms belonged to the deceased before they died or if this was a significant collection made by the family and given to them. They could be intended as protection for the deceased on the journey to and existence in the afterlife. Woodward's suggestion that necklaces could be a collection of items handed down

through generations of family members is perhaps relevant here (Woodward 2002, 1043). Could these items be given to the deceased by different family members, or could each amulet represent an important event in the life of the deceased?

The trend towards including coins in infant burials is extremely interesting. Although the coins are not linked to other amulets and, in fact, look like they were originally jewellery items, they should not be discounted as performing a symbolic function. It is possible that they belonged to the child, but since they are under the age of two, this is unlikely. A more appropriate suggestion is that they were given to the child by a member of the family, perhaps the mother, and were intended to give protection and comfort to the child on the journey. This would indicate a change in function from a jewellery item for the mother, to protection for the child.

It should be understood that interpretation of the function of the coin should not be confined to its benefits for the deceased and its inclusion in the burial may be for the comfort of those left behind. For example, the coins in the fill are far too frequent to be considered accidental loss and must have been thrown in by mourners at the funeral. The disassociation between the body of the deceased and the coins in the fill suggest that they may not be intended for direct use by the deceased. It is possible that they are a way by which the mourners could participate in the burial process, perhaps believing that they were helping to offer protection for the deceased. In such examples the coins have also ceased to have monetary properties and must be considered separately from Charon mythology. It is possible that, in part, their function is to provide comfort for the deceased.

In those areas outside imperial boundaries, the function of the coin is very different. They are most frequently found at the waist of the deceased, sometimes within the remains of a purse, so could be included as provision for the afterlife. However, this seems unlikely since no monetary based economy existed in Denmark at this time. The metal type of the coin (silver and gold) and the wealth of the other grave goods imply the coin is included as an assertion of identity, wealth and elite status.

It is almost impossible to prove any of the suggestions above, but they are necessary to show the range of interpretation which can be associated with a coin. I do not claim to have identified all the possible explanations for the function of coins in burial in the Roman world; these are only those which have arisen as the result of this study. In fact, it is entirely possible that coins could be included for reasons that are not identifiable in the archaeological record. For example, the image on the reverse or the mint date could have some personal significance to the deceased or the family. Despite the speculative nature of the suggestions, it is hoped that the analysis in this work has shown the benefits of looking more closely at this custom and that the function of the coin is significantly more complex than a single overarching explanation allows.

8.11 Conclusion

An examination of the earliest deposition of currency in burials in Italy shows it to be well established in Rome and the south by the imperial period, with *aes rude* appearing in burials as early at the 8th century BC. The first uses of coins in the area come from Greek colonial sites and date to the 4th century BC, implying that the practice most likely came from Greece, although a more detailed analysis is required to confirm this. A pre-existing tradition for the inclusion of coins in burials may have made the uptake of the custom in the imperial period easier. Although dating significantly later than those in Italy, Germany too has evidence for the pre-Roman placement of coins in burials, dating from the 3rd century BC. In contrast, there is no evidence for coins in burials prior to Roman contact in Britain.

The comparison of how coin deposition changed over time showed that each of the case study regions followed a similar pattern. It appears that the custom is rapidly adopted, but quickly reaches a peak in popularity, before dropping significantly and remaining low. This is a possible wide ranging trend, which requires testing using evidence from other provinces. The main difference is the resurgence in the custom in the 4th century AD in Britain, a local tradition which requires further study. Tentatively, it could be suggested that the differences in Britain are due to the lack of an established custom and its distance from Rome, although this is entirely

speculative and detailed study of the custom in the 5th century AD would be required to investigate the phenomenon.

Analysis of the number of coins included in a single burial showed that the deposition of a single coin was most common in each of the regions studied; with between two and five coins being rarer but not unexpected. This can also be considered an Empire wide trend. The irregularities are discussed in each of the regional chapters, but the inclusion of multiple coins appears to be the choice of the individuals involved in the burial process, as there is no chronological or geographical link between these.

The dominance of copper alloy coins is also shared between the case study regions; another apparent wide-ranging trend. The use of gold is confined to Britain and silver and billon varies between the different regions. This evidence suggests that the act of placing the coin is important, not the specific denomination. Interestingly, this is a pattern replicated in other coin offerings, such as at springs (Sauer 2011, 517), but unfortunately a comparative study was not possible in this work.[12] The infrequency of silver and billon coinage hints at a conscious effort to retain the more valuable coins. Considering that the annual pay of an auxiliary infantryman was c. 150 *denarii*, which they also used to cover their subsistence (Alston 1994, 121), perhaps the inclusion of a *denarius* was too much for people to spare.

Similar patterns can also be identified in the location of coins in burials in each of the different provinces. Half of the burials in the database have the coins found around the head and neck of the deceased. This supports the Charon mythology, where the coin on the eyes and mouth are interpreted as payment to Charon for travel to the afterlife. The other half of the burials shows a greater variety in position, including the arms, the waist, the feet, in a vessel and in the fill. Each of these positions can offer alternative explanations for the function of the coins, such as provision for the afterlife, jewellery items, amulets and gifts from mourners. Although the specific

[12] For a detailed discussion of coins in springs and other water contexts, please refer to Sauer 2005.

percentage of coins at each location varies between region, it is evidence for another wide-ranging trend.

Investigation into the associated grave goods has shown that the practice occurs at every level of society. The inclusion of precious metal grave goods is infrequent, but when it does occur, it may indicate that the deceased was from a wealthier class in society. A more detailed study of grave goods in each of the areas studied would be required to confirm this assessment. More useful was the connection between the pierced coins and the other grave goods. This has aided interpretation by offering a possible distinction between those offered as jewellery and those which may have more of a symbolic meaning.

Denmark was included in this study as a control, since it is outside direct Roman rule and everyday contact, but still observes the practice. If the patterns identified were the same as in the provinces, this would suggest that the patterns identified in Italy, Germany and Britain are not actually confined to within imperial boundaries. Thankfully, this area showed a very different practice. Deposition of coins in burials is rare and confined to the 3rd and 4th centuries AD. All the coins deposited are silver and gold; there are no copper alloy examples. The associated grave goods are high value, including Roman imports, and suggest that these are burials of wealthier individuals. Nearly half of the coins are pierced, or contain a suspension loop, indicating they were worn, possibly for their aesthetic value or more likely as a public display of status. The coins function as an expression of identity, wealth and contacts with the Roman world (or the Germanic aristocracy through gift-giving) and are not connected in any way to the payment of a deity. All of these observations are in contrast to the provincial evidence, suggesting that the trends identified are confined to within imperial boundaries.

Overall, the patterns identified in this work are designed to be tested against new data. For those studying coins at specific cemeteries, it is hoped these could be used as a guideline from which to interpret coins in burials and illustrate the benefits of analysing the coin in the context of the burial. It is the intention to add more evidence

to the database in each of the areas studied to see if this changes or enhances the observed patterns.

Chapter 9 – Conclusion and further work

The regional studies have produced a number of interesting patterns, which have been discussed in detail in the previous chapter. Multiple suggestions for function of the coin in Roman burial ritual have also been offered, based on the regional and comparison evidence. This chapter, therefore, will concentrate on whether the aims of this work have been achieved and the contributions of this PhD in regards to wider burial studies. It will also look at the possible directions for further research.

9.1 Aims – a reminder

Before looking at whether the aims have been achieved, it is necessary to remind ourselves what these were.

The first aim was to thoroughly investigate the coin in the context of the burial in each of the case study areas. This was to be used to give a clearer understanding of the practice and how it changed through time. Any irregularities would be discussed individually to determine why they occur. Each area was to be analysed separately to allow for its individual patterns to be identified. This would include a brief analysis of pre-Roman burials containing currency, in order to understand how the custom changed in the imperial period.

The area of modern Denmark was also included as a control. It is used to investigate whether coins are placed in burials outside imperial boundaries and if the practice is similar to within the Empire. If they showed similar practice, this would suggest that Roman contact was not directly responsible for the observation of the custom. If the territories within the Empire show similar patterns and Denmark very different ones, this would imply that similar religious beliefs and practice are being transmitted by the Romans, but motivations for the practice outside imperial boundaries are very different.

The second aim was to compare the results of the investigation into each of the case study regions. It was hoped that they could be used to identify wide-ranging patterns

and show how the practice changed, if it did, as it spread to the different geographical regions.

The final aim was to offer alternative suggestions for the function of coins in Roman burial ritual. Is every coin deposited in the observation of a single, strict mythological belief, i.e. Charon's fee? Or, can a more detailed investigation into the practice provide evidence for more than one interpretation?

9.2 Were the aims achieved?

The first objective was to thoroughly investigate the coin in the context of the burial, focusing on the evidence from the imperial period. This was achieved in Chapters 4-7, through a systematic analysis of the following: chronological distribution of burials containing coins, comparison of the mint date of the coin to the burial date, the metal type, the number of coins deposited in a single burial, pierced coins, degree of wear and associated grave goods. Each investigation produced identifiable patterns and irregularities, which were discussed and interpreted in each chapter.

Although beyond the chronological limits for this work, it was important to include an overview of burials containing currency in the pre-Roman period. This proved to be very important in understanding how the custom changed under the Romans. Unfortunately, they could not be investigated as systematically as the imperial period examples, but they still provided interesting patterns. In Italy, the practice commenced as early as the 8th century BC with the deposition of bronze ingots in burials. These initially appear to be linked to a male warrior elite, although the custom evolves to also include upper class females. Their function is unclear, although it is probable that they are provision for the afterlife.

The deposition of coins in burials in Italy can be observed from the 4th century BC on Greek colonial sites. This information hints at the possibility that the custom originated in Greece. The find of coins in burials as early at the 5th century BC in Corinth (Palmer 1964, 84, 238), supports this assessment, although further investigation is required to confirm. The importance of earlier use of *aes rude* should

not be undervalued; it is possible that the uptake of the practice of using coins was made easier by a pre-exiting tradition.

The placement of coins in burials in pre-Roman Germany also confirms a link to higher status individuals. Gold and silver coins are most frequently deposited and the other grave goods comprise a large number of bronze objects, including brooches and jewellery. Interestingly, some of the burials contain weaponry, also suggesting a link to an elite warrior class. These burials are significantly later than those in Italy, dating from the end of the 3rd century BC to the beginning of the 1st century AD, although it can also be argued that the pre-existing tradition made the adoption of the practice easier.

There do not appear to be any burials containing coins in pre-Roman Britain. All the possible Iron Age examples date to the period of conquest and therefore after contact with the Roman world. The custom appears in Britain because of contact with the Roman world. This evidence suggests that the tradition for the deposition of coins in burials might have begun in the south-east and moved towards the north and west, most significantly in the Roman period. This is a hypothesis which also requires further work to confirm.

The second aim was achieved in chapter 8, by comparing the patterns observed in the regional chapters. They showed a huge amount of continuity between the areas within imperial boundaries, suggesting that, to a certain extent, this was a 'package' which was observed and copied after contact with the Roman world. These patterns are interpreted as possible wide-ranging trends, although need to be tested against other areas of the Roman Empire. It should be noted, however, the practice was not static. Closer analysis of the individual areas provided evidence for irregularities, which do not conform to the overall patterns. This is evidence that the coins are not in observation of a single, strict mythology and the variation could indicate multiple functions of the coin. The only exception to this is the data from modern Denmark. This control area proved to be extremely interesting showing a completely different practice. Here, the coins do not appear to be linked to payment of a deity but instead can be viewed as a status symbol, showing contact with the Roman world.

The final aim was to use the results of the above investigations to offer explanations for the role of coins in burial ritual. Although speculative, five main suggestions have been made. The first is that the coins are in observation of the Charon myth. Evidence for this was found in the analysis of location of the coin in the burial, where 50% of the coins in each of the regions studied were placed around the head.

The second suggestion is that the coins were provision for the afterlife, perhaps a token payment intended for the journey, but also for the use in the afterlife.

The third and fourth suggestions concern the pierced coins. The connection of the pierced coins to other pendants and beads implies that the coins were part of a jewellery item, such as a bracelet or necklace. In these burials, the coin is included for its aesthetic value and not payment to any deity. If the coin is connected to other amulets, the possibility that the coin has symbolic value must also be considered. Most evidence for this comes from Britain, where coins are pierced and connected to other amulets, such as canine teeth. The possibility that the meaning could change from aesthetic to symbolic has been suggested for the inclusion of the coins on necklaces in infant burials; especially if the necklace belonged to the mother of the deceased and given to the child as protection.

The final suggestion for the role of coins in burial ritual is not linked to the deceased, but instead to those left behind. Coins in the fill are evidence for the participation of mourners in the funeral process. It could be interpreted as a method by which the friends and family can take part in the burial and say their personal farewell to the deceased. It may give them comfort to sacrifice an item, perhaps believing that it would offer some protection, but the coin itself is not intended to be used by the deceased.

9.3 'A coin in the grave' – the contribution of this study

Chapter 2 provided a detailed discussion of the cemetery excavation reports and burial studies that have been most influential in the methodology of this work. The results of this PhD will now be considered in the context of these publications, determining how it may contribute to the broader study of Roman burials.

The databases presented in appendices 3-6 of this thesis are an important outcome of this work. They are a collection of original data pertaining to coin deposition in burials in each of the regions studied. Although not a complete record of every coin found in a grave, they can be used as a starting point for future work on burial practices and interpretation of funerary belief, similar to the way in which I used Philpott (1991) and Alcock (1980). It should be noted that these catalogues are not intended to be static; they are designed to evolve and to be updated with the publications of new cemetery excavation reports.

This thesis develops previous research (Gorecki 1975) by analysing burial data, and comparing the results, for multiple regions both within, and outside, Imperial boundaries. This has not only resulted in the understanding of coin deposition within each of the individual areas, but has also hinted at trends in the custom throughout the regions studied. These noticeable patterns could be of use in the discussion of coins in burials within cemetery reports. Philpott (1991) is most often referenced when examining coins in burials in excavation reports (cf. Cool 2004, 443; Barber and Bowsher 2009, 62), but the results of this thesis would provide an updated context in which to interpret the custom at that specific site. Moreover, this work also offers the chance to assess how coin offerings at newly excavated cemeteries compare to other provinces of the Roman Empire.

The results of this thesis also fit well into current research into burial practices. For example, Crummy's study into the iconography of coins in infant burials has suggested evidence for specific coin choice based on the reverse image (Crummy 2010). Although I have criticised this approach, which requires a wider study of reverse type issue and circulation, it does complement my examination of pierced coins, which appear to be connected to infant burials in each of the regions studied.

This thesis contributes to the wider study of funerary ritual and belief in the discussion of the function of the coin in the burial. Influenced by Cool's wide-ranging interpretations of the significance of grave-offerings (Cool 2004), I have attempted to develop current approaches to, and explanations for, the role of coins in burial ritual. Section 8.10 offers alternatives to the Charon explanation for the custom, illustrating the benefits of looking more closely at pierced coins and the role of mourners. These suggestions, of course, require further study, but it is hoped that this methodology has shown the advantages of thinking about the topic in broader terms, thereby presenting theories which are available to be tested in future work.

This PhD has been a learning process and it is difficult to reflect upon its contributions without identifying possible shortcomings. Eckardt has shown the benefits to studying lamps in a social context, arguing that the social meaning of objects can change over time (Eckardt 2002, 37). Examination of the social, and also economic, contexts in which the coins are being deposited in burials is one analysis which I feel could have benefited this study. It would have given another dimension to understanding the function of the coin in the grave and how it might change over time. As evidenced by Eckardt (2002), however, this is best achieved by the examination of only one region, an approach which would have been contradictory to the comparative aim for this thesis.

This PhD has made considerable advancements in the understanding of the role of coins in burial ritual by providing an original and comprehensive database, thorough analysis of the data, observation of wide-ranging trends and offering innovative interpretation of the function of the coin. However, this work has also highlighted the complex nature of the topic. It is a wide-ranging custom, both geographically and chronologically, with the function of the coin inevitably changing over time and space. In this respect, this thesis is not intended as a definitive work on the subject, but one which can provide a solid foundation for future studies to expand upon.

9.4 Further work

As discussed above, the placement of coins in burials is extremely wide-ranging, both geographically and chronologically. This means that further work can take a number of different directions.

It would be extremely beneficial to look at other provinces within the Roman Empire. The regions studied in this work were chosen to show a small cross-section of the Roman world, but many more areas could be included. It would be interesting to observe whether the patterns are replicated and it could be used to confirm the wide ranging trends observed above. A similar argument can be made for the areas of unconquered *barbaricum*. The inclusion of the area of modern Denmark as a control has revealed a different practice, is this the same in all unconquered regions, or does proximity to Roman contact have an effect on the practice?

A further possibility could be to concentrate on a single province within the Empire, undertaking a regional study. It would be interesting to see if the patterns remain the same, using a much larger database. If concentrating on a single area, it may be possible to spend time identifying the sex and age of the grave occupants, creating another method of investigation, one which was not possible in this work. It may also allow for a closer inspection of the coins and perhaps identification of RIC numbers. This information could be used to investigate specific coin choice based on reverse type. Crummy's argument for specific coin choice based on reverse types is extremely interesting (Crummy 2010). However, without a study of all the reverse types issued and available in each of the regions, it is difficult to know whether their choice is simply the result of increased availability of a particular type of coin.

The pre-Roman placement of coins and other currency in burials was only briefly discussed in this work, but the results showed the practice was very different. Further work could concentrate on the pre-Roman deposition of coins and earlier forms of currency in burials. The other grave goods could be used to investigate whether coins are part of a larger evolution of the deposition of payment in burials. The function of the proto-currency could also be investigated. No evidence was found in this work to

link the practice to the payment of a deity, would this remain the same if looking much more closely at the individual examples?

Looking specifically at the placement of coins, it would also be advantageous to investigate the earliest examples of the placement of coins in burials in Greece, and its movement to southern Italy in the colonial period. This could also be used to examine whether coins are the evolution of an earlier form of payment, and whether these were intended as payment to a deity for transport to the afterlife. The study of the early practice in Italy showed it to be linked to wealth and status; can a similar argument be made in Greece? Or, is the practice always linked to the payment of Charon?

Further work could also look at the deposition of coins towards the end of Roman rule. Chapter 3 showed that the use of coins continues into the Anglo-Saxon and later periods, how does the custom change at this point? A resurgence of the practice in Britain was identified in the late 4th century AD; it would be interesting to observe how this changes after the demonetarisation of the area when the Romans leave, is it replaced by a different form of payment?

9.5 Conclusion

Overall, this work has produced patterns which give a detailed picture of coins in imperial period burials. Given that the motivation for choosing a coin, and the role they play, is specific to the individuals involved in the burial practice, a large number of possible interpretations of their function have been made. These suggestions are based on the patterns identified in the systematic analysis and can be quite speculative. This was intentional. The limitation of previous work was that they used a single mythology to explain the deposition of coins in burials; I wanted to show that the patterns can be used to interpret much more widely.

This study shows the merits of looking more broadly at the phenomenon, since wide-ranging patterns can be identified. It is also intended to form the basis for future work. However, its immediate benefits are that it can be used by archaeologists to identify if their cemeteries fit into the same general patterns. It is also hoped that the

advantage to thoroughly recording the coins in the context of the burial have been illustrated and consequent changes to archaeological recording techniques will be made on site.

Bibliography

Abbot, R. 1956, 'Roman Discoveries at Goadby Marwood', *Transactions of the Leicestershire Archaeological and Historical Society* 32: 17-35.

Ainsworth, C. J. and Ratcliffe-Densham, H. B. A. 1974, 'Spectroscopy and a Roman Cremation from Sompting Sussex', *Britannia* 5: 310-316.

Alcock, J. P. 1980, 'Classical religious Belief and Burial Practice in Roman Britain', *Archaeological Journal* 137: 50-85.

Algar, D. J. 1961, 'Winterbourne Down: Roman Cemetery', *Wiltshire Archaeological Magazine* 58: 470.

Allason-Jones, L. and McKay, B. 1985, *Coventina's Well: A shrine on Hadrian's Wall*, Oxford: Oxbow Books.

Allen, D. F., 1958, 'The origins of coinage in Britain: a reappraisal' in Frere, S. S (ed.), pp. 97-308.

Alston, R. 1994, 'Roman Military Pay from Caesar to Diocletian', *The Journal for Roman Studies* 84: 113-123.

Anthony, I. E. 1968, 'Excavations in Verulam Hills Field, St. Albans, 1963-4', *Hertfordshire Archaeology* 1: 9-50.

Anon, 1924, 'Roman burials near Epsom', *Antiquaries Journal* 4: 1924, 275.

Anon, 1973, 'Wiltshire Archaeological Register for 1971', *Wiltshire Archaeological Magazine* 68: 126-139.

Applebaum, E. S. 1932, 'Excavations at Baldock in 1932', *Transactions of the St. Albans and East Herefordshire Architectural and Archaeological Society* 244-258.

Babington, C. 1874, 'Roman Antiquities found at Rougham', *Proceedings of the Suffolk Institute of Archaeology and Natural History* 4: 257-281.

Barber, B., Bowsher, D. and Whittaker, K. 1990, 'Recent Excavations of a Cemetery of *Londinium*', *Britannia* 21: 1-12

Barber, B. and Bowsher, D. 2000, *The Eastern Cemetery of Roman London: Excavations 1983-1990*, London: MoLAS Monograph 4, Museum of London Archaeological service.

Barber, B. and Bowsher, D. 2009, http://archaeologydataservice.ac.uk/archives/view/romcem_eh_2009/ Accessed 06/12 and 01/13.

Bartlett, J. E. and Mackey. R. W. 1972, 'Excavations on Walkington Wold 1967-1969', *East Riding Archaeologist* 1: 1-93.

Bentley, D. and Pritchard, F. 1982, 'The Roman Cemetery at St. Bartholomew's Hospital', *Transactions of the London and Middlesex Archaeological Society* 33: 134-172.

Bergamini, M. 1988, *Foligno: La necropolis di S. Maria in Campis*, Perugia: Universita' degli studi di Perugia, Instituto de Archeologia, Soprintendenza archeologia per l'Umbria, Edizioni Guerra.

Bergonzi, G. and Agostinetti, P. 1987, 'L'obolo di Caronte. Aes rude e monete nelle tombe: La pianura padana tra mondo classico e ambito transalpino nella seconda eta del ferro', *Scienze dell'antichita: storia, arceologia, antropologia* 1: 161-223.

Bidwell, P. T. 1980, *Roman Exeter: Fortress and Town*, Exeter: Exeter Museum Service.

Birley, E. 1963, 'Roman bronze arm-purses', *Archaeologia Aeliana (4th series)* 41: 5-17.

Blegen, C. W., Palmer, H. and Young, R. S. (eds.) 1964, *Corinth: Results of excavations conducted by the American School of Classical Studies at Athens. Volume XIII: The North Cemetery*, Princeton, new Jersey: The American school of Classical Studies at Athens.

Bolla, M. 1988, *Le necropoli romane di Milano*, Milano: Notizie dal chiostro del monastero maggiore: Supplemento V.

Boninu, A., D'Oriano, R., Mastino, A., Panciera, S. and Satta, M. C. H. 1987, *Turris Libisonis: La necropoli meridionale o di San Gavino*, Sassari: Chiarella.

Boon, G. C. 1972, *Isca: The Roman Legionary Fortress at Caerleon*, Cardiff: National Museum of Wales.

Booth, P. 1982, 'Roman Features at 79 Priory road, Alchester, 1982', *Transactions of the Birmingham and Warwickshire Archaeological Society* 92: 144-149.

Booth, P. Simmonds, A., Boyle, A., Clough, S., Cool, H. E. M. and Poore, D. (eds.), 2010. *The late Roman cemetery at Lankhills, Winchester: Excavations 2000-2005*, Oxford: Oxford Archaeology Monograph.

Bortin, V. 1980, 'Science and the Shroud of Turin', *The Biblical Archaeologist* 43: 109-117.

Bowen, G. E. 2003, 'Some Observations on Christian Burial Practices at Kellis', in Bowen and Hope (eds.), pp. 166-182.

Bowen, G. E. and Hope, C. A. (eds.) 2003, *The Proceedings of the Third International Conference of the Dakhleh Oasis Project*, Oxford: Oxbow Books.

Boyd Dawkins, W. 1864, 'On a Romano-British Cemetery, and a Roman Camp, at Hardham, in West Sussex', *Sussex Archaeological Collections* 16: 53-64.

Boye, L. and Lund Hansen, U. (eds.) 2009, *Wealth and Prestige: An analysis of rich Graves from Late Roman Iron Age on Eastern Zealand, Denmark*, Taastrup: Kroppedal Museum.

Boye, L. 2009, 'Catalogue of the Burial Sites', in Boye and Lund Hansen (eds.), pp. 263-368.

Bradford, J. P. S. and Goodchild, R. G. 1939, 'Excavations at Frillford, 1937-38', *Oxoniensia* 4: 1-70.

Bridger, C. and Kraus, K. 2000, 'Römische Gräber in Xanten, Viktorstraße 21', *Bonner Jahrbücher* 200: 25-82.

Brown, L. 2008, 'Charon's Obols? A case Study in the Role of Coins in Roman Burial Ritual', in Fenwick, Wiggins and Wythe (eds.), pp. 121-130.

Bruce-Mitford, R. *The Sutton-Hoo Ship Burial Volume 1: Excavations, Background, the Ship, dating and Inventory*, London: British Museum Press.

Bushe-Fox, J. P. 1949, *Fourth Report on the Excavations of the Roman Fort at Richborough, Kent*, London: Reports of the Research Committee of the Society of Antiquaries of London, No. XVI.

Butler, R. M. (ed.) 1971, *Soldier and Civilian in Roman Yorkshire*, Leicester: Leicester University Press.

Bursche, A., Ciolek, R. and Wolters, R. (eds.) 2008, *Roman coins outside the Empire: Ways and Phases, Contexts and Functions. Proceedings of the ESF/SCH Exploratory Workshop Radziwill Palace, Nieborów (Poland), 2-6 September 2005*, Warsaw: Collection Monete 82.

Bursche, A. 2009, 'Coins', in Boye and Lund Hansen (eds.), pp. 185-192.

Buxton, L. H. D. 1921, 'Excavations at Frilford', *Antiquaries Journal* 1: 87-97.

Calkin, J. B. 1947, 'Two Romano-British burials at Kimmeridge', *Proceedings of the Dorset Natural History and Archaeological Society* 69: 33-41.

Campbell, M. J. and Machin, D. 1999, *Medical Statistics: A commonsense approach*, Chichester: Wiley and Sons.

Cantilena, R. 1995, 'Un Obolo per Caronte?', *Parola del Passato* 50: 165-177.

Capitanio, M. 1974, '(Macerata). La necropoli romana di Portorecanati', *Notizie degli Scavi di Antichita* 28: 145-445.

Carlyle, S. 2008, 'A Late Roman Coin Hoard and Burials, Garley's Field, Ketton, Rutland 2002-2003', *Transactions of the Leicestershire Archaeological and Historical Society* 82: 79-112.

Casey, J. and Reece, R. 1988, *Coins and the Archaeologist*, London: Seaby.

Casey, J. 1988, 'The interpretation of Romano-British site finds', in Casey and Reece (eds.), pp. 57-72.

Catalli, F. 2002, 'L'offerta di moneta nei santuari e le monete del *lacus* di Anna Perenna', in Piranomonte (ed.), pp. 34-37.

Charlton, B. and Mitcheson, M. 1984, 'The Roman Cemetery at Petty Knowes, Rochester, Northumberland', *Archaeologia Aeliana* (5th series) 12: 1-31.

Cheney, C., Evans, J. A., Lamb, A., Müldner and Eckardt, H., 2010, 'Oxygen and Strontium isotope analysis', in Booth et al (eds.), pp. 421-428.

Chiesa, G. S. 1985a, *Angera Romana: Scavi nella necropoli 1970-1979. Volume Primo*, Milano: Universita degli studi di Milano, Instituto Archeologia, Giorgio Bretschneider Editore.

Chiesa, G. S. 1985b, *Angera Romana: Scavi nella necropoli 1970-1979. Volume Secondo*, Milano: Universita degli studi di Milano, Instituto Archeologia, Giorgio Bretschneider Editore.

Cipollone, M. 2000-2001, 'Gubbio (Perugia): Necropoli in loc. Vittorina. Campagne di scavo 1980-1982 (1)', in *Notizie degli Scavi di Antichita* 11-12: 5-371.

Clarke, R. R. 1947, 'Roman Britain in 1947: I. Sites Explored', *Journal of Roman Studies* 37, 90-92.

Clarke, G. 1979, *Pre-Roman and Roman Winchester: Part II, The Roman Cemetery at Lankhills*, Oxford: Winchester Studies 3, Oxford University Press.

Cleary, S. E. 1989, *The ending of Roman Britain*, London: Batsford.

Cocchiaro, A. and Andreassi, G. 1988, *La Necropoli di via Cappuccini a Brindisi*, Brindisi: Schena Editore.

Cohen, A. C. 2005, *Death Rituals, Ideology, and the development of Early Mesopotamian Kingship: Toward a New Understanding of Iraq's Royal Cemetery of Ur*, Boston: Brill/Styx/Leiden.

Collingwood, R. G. and Taylor, M. V. 1928, 'Roman Britain in 1928: I. Sites Explored', *The Journal of Roman Studies* 18: 191-214.

Collingwood, R. G. and Taylor, M. V. 1932, 'Roman Britain in 1931: I. Sites Explored', *The Journal of Roman Studies* 22: 198-223.

Collis, J. 1978, *Winchester Excavations Volume II: 1949-1960. Excavations in the suburbs and the Western part of the Town*. Winchester: City of Winchester.

Cool, H. E. M. 2004, *The Roman cemetery at Brougham, Cumbria: Excavations 1966-67*, London: Britannia Monograph Series no. 21, Published by the Society for the Promotion of Roman Studies.

Cool, H. E. M. 2010. 'Objects of glass, shale, bone and metal (except nails)', in Booth et al (eds.), pp. 267-308.

Cooper, J. S. 1992, 'The Fate of Mankind: Death and afterlife in ancient Mesopotamia', in Obayashi (ed.), pp. 19-33.

Corbet Anderson 1867, *The Roman city of Uriconium at Wroxeter, Shropshire*, London: J. Russell Smith.

Corder, P. 1948, 'Miscellaneous Small Objects from the Roman Fort at Malton', *Antiquaries Journal* 28: 173-177.

Cordie-Hackenberg, R. and Haffner, H. 1991, *Das keltisch-römische Gräberfeld von Wederath-Belginum. 4. Teil: Graber 1261-1817. Ausgegraben 1978-1980*, Mainz am Rhein: Verlag Philipp von Zabern.

Cordie-Hackenberg, R. and Haffner, H. 1997, *Das keltisch-römische Gräberfeld von Wederath-Belginum. 5. Teil: Graber 1818-2472. Ausgegraben 1978, 1981-1985*, Mainz am Rhein: Verlag Philipp von Zabern.

Couchman, J. E. 1925, 'A Roman Cemetery at Hassocks', *Sussex Archaeological Collections* 66: 34-61.

Crawford, S. 2004, 'Religion and the Anglo-Saxon Furnished Burial Ritual', *World Archaeology* 36: 87-102.

Creighton, J., 2006, *Britannia: the creation of a Roman province*, London: Routledge.

Crummy, N. 1983, *Colchester Archaeological Report 2: The Roman Small Finds from the excavations in Colchester 1971-9*, Colchester: Colchester Trust Ltd.

Crummy, N. 2010, 'Bears and Coins: The Iconography of Protection in Late Roman Infant Burials', *Britannia* 41: 37-93.

Cumming, C. and Hedges, R., 2010, 'Carbon and Nitrogen stable isotopes analyses', in Booth et al (eds.), pp. 411-420.

Cunliffe, B. W. 1968, *Fifth Report on the Excavations of the Roman Fort at Richborough, Kent*, London: Reports of the Research Committee of the Society of Antiquaries of London, No. XXIII.

Cunliffe, B. 1969, *Roman Bath*, Oxford: Oxford University Press.

Cunliffe, B. (ed.) 1988, *The Temple of Sulis Minerva at Bath. Volume 2: The finds from the sacred spring*, Oxford: Oxford University Committee for Archaeology, Monograph no. 16.

Damon, P. E., Donahue, D. J., Gore, B. H., Hatheway, A. L., Jull, A. J. T., Linick, T. W., Sercel, P. J., Toolin, L. J., Bronk, C. R., Hall, E. T., Hedges, R. E. M. Housley, R., law, I. A., Perry, C., Bonai, G., Trumbore, S., Woelfli, W., Ambers, J. C., Bowman, S. G. E., Leese, M. N. and Tite, M. S. 1989, 'Radiocarbon dating of the Shroud of Turin', *Nature* 337: 611-614.

Davies, J. 1999, *Death, Burial and Rebirth in the Religions of Antiquity*, London: Routledge.

Davey, N. 1935, 'The Romano-British Cemetery at St. Stephens, near Verulamium', *Transactions of the St. Albans and East Hertfordshire Architectural and Archaeological Society* 4: 243-275.

Dawson, M. 1994, *A Late Roman Cemetery at Bletsoe*, Bedford: Bedfordshire Archaeology Monograph No. 1.

De Grummond, N. T. 2006a, 'Introduction: The History of the Study of Etruscan Religion', in De Grummond and Simon (eds.), pp. 1-8.

De Grummond, N. T. 2006b, *Etruscan Myth, Sacred History, and Legend*, Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.

De Grummond, N. T and Simon, E. (eds.) 2006, *The Religion of the Etruscans*, Austin: University of Texas Press.

De Jersey, P. 1996, *Celtic coinage in Britain*, Bucks: Shire.

Denver, W. G. and Gitin, S. (eds.) 2003, *Symbiosis, Symbolism and the Power of the Past: Canaan, Ancient Israel and their Neighbours from the Late Bronze Age through Roman Palaestina*, Indiana: Eisenbrauns.

Dickinson, T. M. 1976, *The Anglo-Saxon burial sites of the Upper Thames region, and their bearing on the history of Wessex, ca. 400-700*, University of Oxford, PhD thesis.

Donovan, H. E. 1939, 'Reports on the Roman Remains, Gloucestershire', *Transactions of the Bristol and Gloucestershire Archaeological Society* 61: 107-134.

Down, A. and Rule, M. 1971, *Chichester Excavations Volume 1*, Chichester: Chichester Civic Society Excavations Committee.

Dreisbusch, G. 1994, *Das römische Gräberfeld von Altlußheim-Hubwald (Rhein-Neckar-Kreis)*, Stuttgart: Kommissionsverlag, Konrad Theiss Verlag.

Duns, J. 1893-4, 'Antiquarian notes', *Proceedings of the Society of Antiquaries of Scotland* 28: 126-135.

Dyer, J. 1974, 'The Excavation of Two Barrows on Galley Hill, Streatley', *Bedfordshire Archaeological Journal* 9: 13-74.

Dyhrfjeld-Johnsen, M., forthcoming, *Multifunctional coins – a study of Roman coins from the Zealandic in eastern Denmark*.

Ebner, D. 1997, *Das Römische Gräberfeld von schwabmünchen, Landkreis Augsburg*, Kallmünz/Opf: Im verlag Michael Lassleben.

Eckardt, H. 1999, 'The Colchester 'Childs Grave', *Britannia* 30: 57-90.

Eckardt, H. 2002, *Illuminating Roman Britain*, Montagnac: Monographies instrumentum.

Ehrenwirth, R., Filip, S., Gröschner, N. and Winkovics, T. 2011, 'Luxus in der Provinz', *Antike Welt* 49.1: 44-51

Ellis, R. 1985, 'Excavations at St. Clare Street' *The London Archaeologist* 5: 115-121.

Faber, A., 1998. *Das Römische gräberfeld auf der Keckwiese in Kempten. II gräber der mittleren kaiserzeit und infrastruktur des gräberfelds sowie siedlungsbefunde im ostteil der Keckwiese*, Kallmünz.: Verlag Michael Lassleben.

Faull, M. L. 1977, 'British Survival in Anglo-Saxon Northumbria', in Laing (ed.), pp. 1-55.

Faulkner, R. O. 1969, *The Ancient Egyptian Pyramid Texts Translated into English*, Oxford: Oxford University Press.

Fecher, R. and Burger-Heinrich, E. 2010a, *Arae Flaviae VII. Die römischen Gräberfelder. Band 1*, Stuttgart, Konrad Theiss Verlag.

Fetcher, R. 2010b, *Arae Flaviae VII: Die römischen Gräberfelder. Band 2*, Stuttgart: Konrad Theiss Verlag.

Fenwick, C., Wiggins, M. and Wythe, D. 2008, *TRAC 2007: Proceedings of the Seventeenth Annual Theoretical Roman Archaeology Conference London 2007*, Oxford: Oxbow Books.

Field, N. and Hurst, H. 1983, 'Roman Horncastle', *Lincolnshire History and Archaeology* 18: 47-88.

Fox, C. 1923, *The Archaeology of the Cambridge Region*, Cambridge: Cambridge University Press.

Fox, C. and Lethbridge, T. C. 1924/5, 'The La Tène and Romano-British Cemetery, Guilden Morden, Cambrigeshire', *Proceedings of the Cambridge Antiquarian Society* 27: 49-63.

Frere, S. 1940, 'A Survey of archaeology near Lancing', *Sussex Archaeological Collections* 81: 141-172

Frere. S. S. 1958, *Problems of the Iron Age in southern Britain*, London: Council for British Archaeology.

Frere, S. S. 1977, ''Roman Britain in 1976: I. Sites Explored', *Britannia* 7: 291-337.

Frere, S. S. 1985, 'Roman Britain in 1984: I. Sites Explored', *Britannia* 16: 252-316.

Frere, S. S., Bennett, P., Rady, J. and Stow, S. 1987, *Canterbury Excavations: Intra- and Extra-Mural Sites 1949-1955 and 1980-1984*, Canterbury: Canterbury Archaeological Trust.

Frere, S. S. 1990, 'Roman Britain in 1989: I. Sites Explored', *Britannia* 21, 303-364.

Geist, H. 1969, *Römische Grabinschriften*, München: Heimeran-Verlag.

George, A. 1999, *The Epic of Gilgamesh: The Babylonian Epic Poem and Other Texts in Akkadian and Sumerian*. England: Penguin Books.

Gillam, J. P. and Daniels, C. M. 1961, 'The Roman Mausoleum on Shorden Brae, Beaufront, Corbridge, Northumberland', *Archaeologia Aeliana (4th series)* 29: 37-61.

Goelet, O., Faulkner, R. and Andrew, C. 1998, *The Egyptian Book of the Dead: The Book of Going Forth by Day*, San Francisco: Chronicle Books.

Goldina, R. D. and Nikitin, A. B. 1997, 'New finds of Sasanian, central Asian and Byzantine coins from the region of Perm, the Kama-Urals area', in Tonabe, Cribb and Wang (eds.), pp. 111-130.

Goddard, E. H. 1917, 'Romano-British Interments at Broad Town', *Wiltshire Archaeological and Natural History Magazine* 40: 353-354.

Goodburn, R. 1978, 'Roman Britain in 1977: I. Sites Explored', *Britannia* 9: 403-472.

Goodburn, R. 1979, 'Roman Britain in 1978: I. Sites Explored', *Britannia* 10: 267-338.

Gordon, R. L. and Simón, F. M. (eds.) 2010, *Magical Practice in the Latin West: Papers from the International Conference held at the University of Zaragoza, 30 September – 1 October 2005*, Leiden: Brill.

Gorecki, J. 1975, 'Studien zur Sitte der Münzbeigabe in römerzeitlichen Körpergräbern zwischen Rhein, Mosel und Somme', *Bericht Der Römisch-germanischen Kommission* 56: 179-467.

Gowland, 2002, *Examining age as an aspect of social identity in the 4th – 6th century*, Durham: PhD Thesis.

Gottschalk, R. 2007, 'Zur spätrömischen Grabkultur im Kölner Umland. Zwei Bestattungsreale in Hürth-Hermülheim. Erster Teil: Die Graber und ihre Befunde', *Bonner Jahrbücher* 207: 211-300.

Graham, E. J. 2011, 'Memory and Materiality: Re-embodying the Roman Funeral', in Hope and Huskinson (eds.), pp. 21-39.

Green, C. J. S. 1968, 'Interim Report on Excavations in the Roman Cemetery, Poundbury, Dorchester 1968', *Proceedings of the Dorset Natural History and Archaeological Society* 90: 171-173.

Green, C. J. S. 1973, 'Interim Report on excavations at Poundbury, Dorchester 1973', *Proceedings of the Dorset Natural History and Archaeological Society* 95: 97-100.

Green, C. J. S. 1974, 'Interim Report on excavations at Poundbury, Dorchester 1974', *Proceedings of the Dorset Natural History and Archaeological Society* 96: 56.

Grew, F. O., Hassall, M. W. C., Tomlin, R. S. O. 1978, 'Roman Britain in 1977', *Britannia* 9: 403-485.

Grew, F. O. 1981, 'Roman Britain in 1980: I. Sites explored', *Britannia* 12: 313-368.

Grinder-Hansen, K. 1991, 'Charon's Fee in Ancient Greece? – Some Remarks on a Well-Known Death Rite', *Acta Hyperborea: Danish Studies in Classical Archaeology* 3: 207-218.

Grinsell, L. V. 1957, 'The Ferryman and His Fee: A Study in Ethnology, Archaeology, and Tradition', *Folklore* 68: 257-269.

Guzzo, P. G. 1974, 'Luzzi. Localita S. Vito (Consenza)', *Notizie degli Scavi di Antichita* 28: 449-484.

Haberey, W. 1962, 'Spätrömische Gräber in Brühl', *Bonner Jahrbücher* 162: 397-406.

Hachlili, R. and Killebrew, A. 1983, 'Was the Coin-on-Eye a Jewish Burial Practice in the Second Temple Period?', *The Biblical Archaeologist* 46: 147-153.

Haffner, A., 1971. *Das keltisch-römische Gräberfeld von Wederath-Belginum. 1. Teil: Graber 1-428. Ausgegraben 1954/1955,* Mainz am Rhein: Verlag Philipp von Zabern.

Haffner, A., 1974, *Das keltisch-römische Gräberfeld von Wederath-Belginum. 2. Teil: Gräber 429-883. Augegraben 1956/1957,* Mainz am Rhein: Verlag Philipp von Zabern.

Haffner, A., 1978, *Das keltisch-römische Gräberfeld von Wederath-Belginum. 3. Teil: Graber 885-1260. Ausgegraben 1958-1960, 1971 and 1974,* Mainz am Rhein: Verlag Philipp von Zabern.

Hagen, W. 1959, 'Antike Münzen. Roisdorf', *Bonner Jahrbücher* 159: 464-470.

Hammerson, M, 1986, 'The coins', in Whytehead (ed.), pp. 96-101.

Hawkes, C. and Dunning, G. C. 1930, 'The Belgae of Gaul and Britain', *Archaeological Journal* 87: 150-335.

Haynes, S. 2000, *Etruscan Civilisation: a cultural history,* London: British Museum Press.

Heighway, C. W. 1980, 'Roman Cemeteries in Gloucester District', *The Archaeological Journal* 98: 57-72.

Hencken, H. 1968, *Tarquinia, Villanovans and Early Etruscans,* Massachusetts: Peabody Museum., *Transactions of the Newbury District Field Club* 9: 10-62.

Hood, S. and Walton, H, 1948, 'A Romano-British Cremating Place and Burial Ground on Roden Down, Compton, Berkshire.

Hope, V. M. 2009, *Roman Death: The dying and the dead in ancient Rome*, London: Continuum.

Hope, V. M. and Huskinson, J. (eds.) 2011, *Memory and Mourning: Studies on Roman Death*, Oxford: Oxbow Books.

Horsnæs, H. W. 2003, 'The coins in the bogs', in Jørgensen, Stogaard and Gebauer (eds.), pp. 12-17.

Horsnæs, H. W. 2010, *Crossing boundaries: An analysis of Roman coins in Danish contexts, Vol. 1: Jutland, Funen and Sealand*, Copenhagen: Papers of the National Museum 18, Syddansk Universitetsforlag.

Hull, M. R. 1958, 'Roman Colchester', *Society of Antiquaries Research Report* XX.

Hull, M. R. 1958, 'Roman Colchester', *Society of Antiquaries Research Report* XX.

Hunter, F., 2007, 'Silver for the Barbarians: Interpreting Denarii Hoards in North Britain and Beyond', in Hingley, R. and Willis, S. (eds.), 'Roman Finds: Context and Theory. Proceedings of a conference held at the University of Durham', pp. 214-224.

Ikram, S. 2003, *Death and Burial in Ancient Egypt*. London: Longman Publishing.

Ilkjær, J. 2003, 'Danish War Booty sacrifices', in Jørgensen, L., Stogaard, B. and Gebauer Thomsen, L. (eds.), pp. 44-65.

Ingo, G. M., Angelini, E., De Caro, T., Bultrini, G. and Mezzi, A. 2004, 'Microchemical investigation of archaeological copper-based artefacts used for currency in ancient Italy before coinage', *Surface and Interface Analysis* 36: 866-970.

Ingo, G. M., De Caro, T., Riccucci, C., Angelini, e., Grassini, S., Balbi, S., Bernardini, P., Salvi, D., Bousselmi, L., Çilingiroğlu, A., Gener, M., Gouda, V. K., Al Jarrah, O., Khosroff, S., Mahdjoub, Z., Al Saad, Z., El-Saddik, W. and Vassiliou, P. 2006, 'Large scale investigation of chemical composition, structure and corrosion mechanism of bronze archaeological artefacts from Mediterranean basin', *Applied Physics A* 83: 513-520.

Jannot, J. R. 1991, 'ΧΑΡΩΝ et CHARUN: A Propos d'un Démon Funéraire Ėtrusque', *Comptes rendus des séances de l'Académie des inscriptions belles-lettre [Paris]*: 443-64.

Jannot, J. R. 1993, 'Charun, Tuchulcha et les Autres', *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung*: 100: 59-81.

Jessup, R. F. 1954, 'Excavation of the Roman Barrow at Holborough, Snodland', *Archaeologia Cantiana* 68: 1-61

Johnson, P. 1978, *The Civilisation of Ancient Egypt*, London: Weidenfeld and Nicolson.

Johnson, M. J. 1997, 'Pagan-Christian Burial Practices of the Fourth Century: Shared Tombs?', *Journal of Early Christian Studies* 5.1: 37-59.

Johnston, D. E. 1974, 'The Roman town at Sandy, Bedfordshire', *Bedfordshire Archaeological Journal*: 35-54.

Jones, D. 1995, *Boats*, London: British Museum press.

Jones, V. 1978, 'Milland (Site 328)', in Collis (ed.), pp. 93-103.

Jørgensen, L., Stogaard, B. and Gebauer Thomsen, L. (eds.) 2003, *The Spoils of Victory – The North in the shadow of the Roman Empire*, Copenhagen: Nationalmuseet.

Jørgensen, L. 2003, 'The Spoils of Victory – the North in the shadow of the Roman Empire', in Jørgensen, Stogaard, and Gebauer Thomsen (eds.), pp. 12-17.

Keller, E. 1971, *Die spätrömischen Grabfunde in Südbayern*, München : Beck.

Keller, E. 1979, *Das spätrömische gräberfeld von Neuburg an der Donau*, Kallmünz/opf: Im verlag Michael Lassleben.

Keller, E. 1984, D*ie Frühkaiserzeitlichen Körpergräber von Heimstetten bei München und die Verwandten Funde aus Südbayern*, München: C. H. Beck'sche Verlagbuchhandlung.

Kempe, A. J. 1832, 'An account of various Roman Antiquities discovered on the site of the Church of St. Michael, Crooked Lane, and in Eastcheap, in forming the northern Approaches of the new London Bridge', *Archaeologia* 24: 190-202

Kent, J. P. C. 1975, 'The coins and the date of the burial', in Bruce-Mitford (ed.), pp. 578-682.

King, A. 1990, *Roman Gaul and Germany*, California: University of California Press.

King, C. E. 2007, *Roman Quinarii from the Republic to Diocletian and the Tetrarchy*, Oxford: Ashmolean Museum.

Kitson Clark, M. 1935, *A Gazetteer of Roman Remains in East Yorkshire*, Leeds: Roman Malton and District Report No. 5, Yorkshire Archaeological Society.

Knocker, G. M. 1955, 'Early burials and an Anglo-Saxon cemetery at Snell's Corner near Horndean, Hampshire', *Papers and Proceedings of the Hampshire Field Club and Archaeological Society* 19: 117-220.

Kolb, M. 2006, *Das römische Gräberfeld von Rheingönheim*, Mannheim: Inaugural-Dissertation zur Erlangung des akademischen Grades eines Doktors der Philosophie.

Kramer, S. N. 1969, 'The Death of Ur-Nammu and His Descent to the Netherworld', *Journal of Cuneiform Studies* 21: 104-122.

Krauskopf, I. 2006, 'The Grave and Beyond in Etruscan Religion', in De Grummond and Simon (eds.), pp. 66-79.

Kraskovská, L. 1976, *The Roman Cemetery at Gerulata Rusovce, Czechoslovakia*, Great Britain: BAR Supplementary Series 10.

Kurtz, D.C. and Boardman, J. 1971, *Greek Burial Customs*, London: Thames and Hudson.

Laing, L. (ed.) 1977, *Studies in Celtic Survival*, Great Britain: BAR British Series 37.

Lambert, J. 1996, *Transect Through Time: The Archaeological landscape of the Shell North Western Ethylene Pipeline*, Great Britain: Lancaster University Archaeological Unit.

Laneri, N. (ed.) 2007, *Performing Death: Social Analyses of Funerary Traditions in the Ancient Near East and Mediterranean*, Chicago: The Oriental Institute of the University of Chicago.

Laneri, N. 2007, 'An Archaeology of Funerary Rituals', in Laneri (ed.), pp. 1-13.

Lavin, L. and Mulryan, M. (eds.) 2011, *The Archaeology of Late Antique 'Paganism'*, Brill: Leiden.

Leach, P. 1982, *Ilchester: Volume I. Excavations 1974-1975*, Bristol: Western Archaeological Trust, Excavation Monograph No. 3

Leech, R. 1981, 'The excavation of a Romano-British farmstead and Cemetery on Bradley Hill, Somerton, Somerset', *Britannia* 12: 177-252.

Leighton, R. 2004. *Tarquinia: An Etruscan City*, London: Duckworth.

Lethbridge, T. C. 1934, 'Further Excavations at in the Early Iron Age and Romano-British Cemetery at Guilden Morden', *Proceedings of the Cambridgeshire Antiquarian Society* 36: 109-20.

Lipiński, E. 2003, 'Phoenician Cult Expressions in the Persian Period', in Denver, and Gitin. (eds.), pp. 297-308.

Liversidge, J. 1977, 'Roman burials in the Cambridge region', *Proceedings of the Cambridgeshire Antiquarian Society* 67: 11-38.

Lund Hansen, U. 1995, 'Himlingøje – Seeland – Europa: Ein Gräberfeld der jüngeren römischen Kaiserzeit auf Seeland, seine Bedeutung und internationalen Beziehungen', *Nordiske Fortidsminder* (*Serie B)* 13: 1-576.

Lund Hansen, U. 2009, 'Glas und Glasscherben', in Boye and Lund Hansen (eds.), pp. 167-176.

MacDonald, J. 1977, 'Pagan religions and burial practices in Roman Britain', in Reece (ed.), pp. 35-38.

MacDonald, J.L. 1979, 'Religion', in Clarke, G. (ed.), pp. 404-424.

Mackensen, M. 1978a, *Das Römische Gräberfeld auf der Keckwiese in Kempten. Text*, Kallmünz, Verlag Michael Lassleben.

Mackensen, M. 1978b, *Das Römische Gräberfeld auf der Keckwiese in Kempten. Tafeln und Beilagen*, Kallmünz: Verlag Michael Lassleben.

Manby, T. G. 1967, 'Norton, E.R', *Yorkshire Archaeological Society* 42: 6.

Mancini, R. 1884, 'Orvieto', *Notizie degli Scavi di Antichitá*, Roma.

Mangani, E. 1982, 'Veneto. Adria (Rovigo) – Necropoli in loc. Ca' Garzoni. Prima campagna di scavo 1966', *Notizie degli Scavi di Antichita* 36: 5-107.

Marsden, B. M. 1986, *The Burial mounds of Derbyshire*, Bradford: Published by author.

Mattingly, H. and Sydenham, E. A. 1923, *Roman Imperial Coinage: Volume 1,* London: Spink.

Mattingly, H. and Sydenham, E. A. 1926, *Roman Imperial Coinage: Volume 2,* London: Spink.

Mattingly, H. and Sydenham, E. A. 1930, *Roman Imperial Coinage: Volume 3,* London: Spink.

Mattingly, H. and Sydenham, E. A. 1936, *Roman Imperial Coinage: Volume 4, Part I,* London: Spink.

Mattingly, H., Sydenham, E. A. and Sutherland, C. H. V. 1938, *Roman Imperial Coinage: Volume 4, Part II,* London: Spink.

Mattingly, H., Sydenham, E. A. and Sutherland, C. H. V. 1949, *Roman Imperial Coinage: Volume 4, Part III*, London: Spink.

Mattingly, H., Sydenham, E. A. and Webb, P. 1927, *Roman Imperial Coinage: Volume 5, Part I*, London: Spink.

Mattingly, H., Sydenham, E. A. and Webb, P. 1933, *Roman Imperial Coinage: Volume 5, Part II*, London: Spink.

May, T. 1930, *Catalogue of the Roman pottery in the Colchester and Essex Museum*, Cambridge: Cambridge University Press.

McGavin, N. 1980, 'A Roman Cemetery and Trackway at Stanton Harcourt', *Oxoniensia* 45: 112-122.

McPherson, J. M. 1929, *Primitive Beliefs in the north-east of Scotland*, London: Longmans, Green and Co..

McWhirr, A. M., Viner, L. and Wells, C. (eds.) 1982, *Romano-British Cemeteries at Cirencester*, Cirencester: Cirencester Excavation Committee.

Meacham, W. 1986, 'On the Archaeological Evidence for a Coin-on-Eye Jewish Burial Custom in the First Century AD', *The Biblical Archaeologist* 49: 56-59.

Meates, G. W., Greenfield, E. and Birchenough, E. 1952, 'The Lullingstones Roman Villa: Second interim Report', *Archaeologia Cantiana* 65, 26-78.

Mercando, L. 1974, 'Marche. Rinvenimenti di tombe di eta romana', *Notizie degli Scavi di Antichita* 28: 88-141.

Mercando, L. 1982, 'Urbino (Pesaro) – Necropoli romana: tombe al Bivio della Croce dei Missionari e a San Donato', in *Notizie degli Scavi di Antichita* 36: 109-420.

Metcalf, P. and Huntington, R. 1991, *Celebrations of Death: The Anthropology of Mortuary Ritual*, Cambridge: Cambridge University Press.

Miles, H. and Miles, T. J. 1968, 'Settlement Sites of the late Pre-Roman Iron Age in Somerset Levels', *Somerset Archaeology and Natural History Society* 113: 17-55.

Milne, J. G. 1942, 'The Aes Grave of Central Italy', *Journal of Roman Studies* 32: 27-32.

Moir, J. R. and Maynard, G. 1931, 'The Roman Villa at Castle Hill, Whitton, Ipswich', *Proceedings of the Suffolk Institute of Archaeology* 21: 240-262.

Moraitis, A. 2003, *Der römische Gutshof un das Gräberfeld bei Lösnich, Kreis Bernkastel Wittlich: Ein Beitrag zur Rekonstruktion ländlicher Besiedlung im Trevererland*, Trier: Selbstverlag des Rheinischen Landesmuseums.

Murnane, W. J. 1992, 'Taking It With You: The Problem of Death and Afterlife in Ancient Egypt', in Obayashi (ed.), pp. 35-48.

Musty, J. and Rogerson, A. 1973, 'A mirror from the Romano-British cemetery at Whitchurch, Shropshire', *Antiquaries Journal* 53: 278-281

Newstead, R. 1914, 'The Roman Cemetery in the Infirmary Field, Chester. Part I', *Annals of Archaeology and Anthropology* 6: 133-156.

Newstead, R. 1921, 'The Roman Cemetery in the Infirmary Field, Chester. Part II', *Annals of Archaeology and Anthropology* 8: 50-53.

Newton, D. P. 2006, 'Found Coins as Indicators of Coins in Circulation: Testing some Assumptions', *European Journal of Archaeology* 9: 211-227.

Nielson, S., 1987/8, 'Roman Denarii in Denmark – an Archaeological Approach' *Nordisk Numismatisk Årsskrift*, pp. 147-169.

Noelke, P. 1984, 'Reiche Gräber von einem römischen Gutshof in Köln', *Germania* 62 (2): 373-423.

Norton, A. 1969, 'Burials', in Cunliffe (ed.), pp. 212-218.

Oakes, L. and Gahlin, L. 2002, *Ancient Egypt: An illustrated reference to the myths, religions, pyramids and temples of the land of the pharaohs*, London: Hermes House.

Obayashi, H. (ed.) 1992, *Death and Afterlife: Perspectives of World Religions*, London: Greenwood Press.

Oldfather, C. H. 1933, *The Library of History Books I – II.34*, London: Loeb.

Osborne, J. 1985, 'The Roman Catacombs in the Middle Ages', *Papers of the British School at Rome* 53: 278-328.

Oswald, A. 1963, 'In the Olden Time on Bredon: Bronze Age and Roman Burials – Rescue Excavations by the Birmingham Museums'. *London Illustrated News* 9: 772-773.

Pagliardi, M. N. and Cecchini, M. G. 2004, 'Roma – La necropoli Romana di via di Grottaperfetta', *Notizie degli Scavi di Antichita* 13-14: 331-456.

Palmer, H. 1964, 'Part IV: The Classical and Roman Periods', in Blegen, Palmer and Young (eds.), pp. 65-327.

Panvini Rosati, F. 1967-1968, 'Moneti della stipe di Vicarello nel Museo Nazionale Romano', *Rendiconti della Pontificia Accademia Romana di Archaeologia. Series III 40*: 57-74.

Parker-Pearson, M. 1999, *The Archaeology of Death and Burial*, Gloucestershire: Sutton Publishing.

Partridge, C. 1981, *Skeleton Green: A Late Iron Age and Roman-British Site*, London: Britannia Monograph Series, No. 2, Society for the Promotion of Roman Studies.

Pasqui, A. 1885, 'Mazzano Romano. Scavi del principe del Drago nel territorio di quest commune', *Notizie degli Scavi di Antichita*, Roma.

Passi Pitcher, L. 1987, *Sub Ascia: una Necropoli Romana a Nave*, Modena: Edizioni Panini.

Patten, T. 1974, 'The Roman Cemetery on London Road, Carlisle', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* (second series): 74: 8-13.

Penn, W. S. 1964, 'Springhead: The Temple Ditch Site', *Archaeologia Cantiana* 79: 170-189.

Petch, J. A. 1925, 'Roman Durham', *Archaeologia Aeliana (4th series)* 1: 1-34

Philpott, R. 1991, *Burial Practices in Roman Britain: A Survey of Grave Treatment and Furnishing A.D. 43-410*, Oxford: BAR British Series 219.

Pierpoint, S. J. 1986, 'Small finds', in Whytehead (ed.), pp. 88-96.

Piggot, S. and Piggot, C. M. 1940, 'Excavations at Rams Hill, Uffington, Berks' *Antiquaries Journal* 20: 465-480.

Pinch, G. 2002. *Egyptian Mythology: A Guide to the Gods, Goddesses and Traditions of Ancient Egypt*, Oxford: Oxford University Press.

Piranomonte, M. (ed.) 2002, *Il Santuario dell musica: E il Bosco sacro di Anna Perenna*, Roma: Ministero per i beni e le attività culturali soprintendenza archaologica di Roma.

Piranomonte, M. 2010, 'Religion and magic at Rome. The Fountain of Anna Perenna', in Gordon and Simón (eds.), pp. 191-213.

Pitt-Rivers, F. L. 1892, *Excavations at Bokerley and Wansdyke*, published for the author.

Polenz, H. 1982, 'Münzen in latènezeitlichen Gräbern Mitteleuropas aus der Zeit zwischen 300 und 50 vor Christi Geburt', *Bayerische Vorgeschichtsblätter* 47: 27-222.

Pratchett, T. 2006, *Wintersmith*, Great Britain: Random Hose Children's Books.

Radley, J. 1968, 'Yorkshire Archaeological Register 1967', *Yorkshire Archaeological Journal* 42: 109-118.

Rahtz, P., Hirst, S. and Wright, S. M. 2000, *Cannington Cemetery: Excavations 1962-3 of Prehistoric, Roman, Post-Roman and Later Features at Cannington Park Quarry, Near Bridgewater, Somerset*, London: Britannia Monograph Series No. 17, Roman Society for the Promotion of Roman Studies.

Ramm, H. G. 1958, 'Roman Burials from Castle Yard, York', *Yorkshire Archaeological Journal* 39: 400-418.

Ramm, H. G. 1971, 'The End of Roman York', in Butler (ed.), pp. 179-199.

RCHM, 1928, *An Inventory of Historical Monuments in London Volume III. Roman London*, London: Royal Commission for Historical Monuments.

RCHM, 1962, *Eburacum Roman York*, London: Royal Commission on Historical Monuments.

RCHM, 1969, *Peterborough New Town*, England: Royal Commission on Hisorical Monuments.

RCHM, 1970, *Dorset: Volume II South-East*, London: Royal Commission on Historical Monuments.

Reece, R. 1977, *Burial in the Roman World*, London: The council for British Archaeology, Research Report no.22.

Reece, R. 1991, *Roman Coins from 140 Sites in Britain*, Cirencester: Cotswold Studies.

Reece, R. and James, S. 2000, *Identifying Roman Coins: A practical guide to the identification of site finds in Britain*, London: Spink and Son Ltd.

Reece, R. 2002, *The Coinage of Roman Britain*, Gloucestershire: Tempus Publishing Limited.

Richmond, I. A. 1925, *Huddersfield in Roman Times*, Huddersfield: The Tolson Memorial Museum Publications.

Roach Smith, C. 1856, *Inventorium Sepulchrale*, London: printed privately.

Robertson, A. S. 1983, 'Roman coins found in Scotland, 1971-82', *Proceedings of the Society of Antiquaries of Scotland* 113: 405-448.

Robinson, J. F. 1978, *The Archaeology of Malton and North Yorkshire*, Leeds: Yorkshire Archaeological Society.

Rodwell, W. 1976, 'Some unrecorded archaeological discoveries in Essex 1946-75', *Transactions of the Essex Archaeological Society* 8: 234-247.

Rose, H. J. 1913, 'Charon: Charos', *Folklore 24*: 247.

Rudd, G. T. and Daines, C. 1971, 'Roman burials found at Duloe Road, Eaton Ford, near St Neots, Huntingdonshire in 1968', *Proceedings of the Cambridgeshire Antiquarian Society* 63: 1-8.

Rutland, R. and Thomas, J. 1967, 'Archaeological Notes from Reading Museum', *Berkshire Archaeological Journal* 63: 67-75.

Saaler, M. 1970, 'Coulsdon: Coulsdon Woods Cemetery', *Surrey Archaeological Collections* 67: 109.

Salway, P. 1965, *The Frontier People of Roman Britain*, Cambridge, Cambridge University Press.

Sauer, E. 2005, *Coins, cut and cultural identity: Augustan coins, hot springs and the early Roman baths at Bourbonne-les-Bains*, Leicester: Leicester Archaeology Monographs No. 10.

Sauer, E. 2011, 'Religious rituals at springs in the late antique and early medieval world', in Lavin and Mulryan (eds.), pp. 505-550.

Schönfelder, M. 1994, 'Bear-Claws in Germanic Graves', *Oxford Journal of Archaeology* 13 (2): 217-227.

Schortman, E. M. (ed.) 1992, *Resources, Power and Interregional Interaction*, London: Plenum Press.

Schulz, R. and Seidel, M. (eds.) 2004, *Egypt: The World of the Pharaohs*, Köln: Könemann.

Sheldon, H. 1972, 'A Roman Burial from Armagh Road, Old Ford', *The London Archaeologist* 1: 348-353.

Shennan, S. 1997, *Quantifying Archaeology (second edition)*, Edinburgh: Edinburgh University Press.

Simon, E. 2006, 'Gods in Harmony: The Etruscan Pantheon', in De Grummond and Simon (eds.), pp. 45-65.

Smith, R. A. 1922, *A Guide to the Antiques of Roman Britain in the Department of British and Medieval Antiquities*, London: British Museum.

Stead, I. M. and Rigby, V. 1986, *Baldock: The excavation of a Roman Settlement and Pre-Roman Settlement, 1968-72*, London: Britannia Monograph Series No. 7, published by The Society for the Promotion of Roman Studies.

Stoklund, M., 2003, 'The first runes – the literary language of the Germani', in Jørgensen, Stogaard, and Gebauer Thomsen (eds.), pp. 172-179.

Stoodley, N. 2000, 'From Cradle to the grave: Age Organization and the Early Anglo-Saxon Burial Rite', *World Archaeology* 31: 456-472.

Sullivan, F. A. 1950, 'Charon, the Ferryman of the Dead', *The Classical Journal* 46: 11-17.

Sutherland, C. H. V. 1940, 'A Theodosian Silver Hoard from Rams Hill', *Antiquaries Journal* 20: 481-485.

Sutherland, C. H. V and Carson, R. A. G. 1967. *The Roman Imperial Coinage: Volume VI*, London: Spink.

Sutherland, C. H. V. and Carson, R. A. G. 1984, *The Roman Imperial Coinage: Volume 1 (Revised edition)*, London: Spink.

Swift, D. 2003, *Roman Burials, Medieval Tenements and Suburban Growth: 201 Bishopsgate, City of London*, London: Museum of London Archaeology Study Series 10, Museum of London Archaeology Service.

Tanabe, K., Cribb, J. and Wang, H. (eds.) 1997, *Studies in Silk road coins and culture: Papers in honour of Professor Ikuo Hirayama on his 65th birthday*, Kamakura: Institute of Silk Road Studies.

Taylor, M. V. and Collingwood, R. G. 1929, 'Roman Britain in 1929: I. Sites Explored', *Journal of Roman Studies* 19: 180-218.

Terpening, R. H. 1985, *Charon and the Crossing: Ancient, medieval and Renaissance Transformations of a Myth*, London: Associated University Presses.

Terzani, C. and Chiari, M. M. 1997, *Isernia: La Necropolis Romana in localita Quadrella*. Roma: Gangemi Editore.

Threipland, L. M. 1957, 'Excavations in Dover', *Archaeologia Cantiana* 71: 14-37.

Thurston, T. L. 2001, *Landscapes of Power, Landscapes of Conflict: State formation in the south Scandinavian Iron Age*, London: Plenum Publishers.

Todd, M. 1969, 'The Roman Settlement at Margidunum: the excavations of 1966-68', *Transactions of the Throroton Society* 73: 7-104.

Toller, H. 1977, *Roman Lead Coffins and Ossuaria in Britain*, Great Britain: BAR Reports 38.

Toms, G. 1969, 'Llanymynech Ogof, Montgomeryshire', *Westmidlands Archaeological News Sheet* 12: 28-29.

Topál, J. 1993, *Roman Cemeteries of Aquincum, Pannonia: The Western Cemetery (Bécsi Road) I*, Budapest: Aquincum Nostrum.

Topál, J. 2003, *Roman Cemeteries of Aquincum, Pannonia: The Western Cemetery (Bécsi Road) II*, Budapest: Aquincum Nostrum.

Toynbee, J. M. C. 1971, *Death and Burial in the Roman World*, London: The Johns Hopkins University Press.

Van Gennep, A. 1960, *The Rites of Passage*, London: Routledge and Kegan Paul.

VCH 1 Berks, 1906, *The Victoria County History of the Counties of England. A History of Berkshire Volume I*, (ed. W. Page), London: Constable and Co.

VCH 1 Derbys, 1905, *The Victoria County History of the Counties of England. A History of Derbyshire Volume I*, (ed. W. Page), London: Constable and Co.

VCH 3 Essex, 1963, *The Victoria County History of the Counties of England. A History of Essex Volume III*, London: University of London.

VCH 1 Hunts, 1926, *The Victoria County History of the Counties of England. A History of Huntingtonshire Volume I*, (ed. W. Page), London: Constable and Co.

VCH 3 Kent, 1932, *The Victoria County History of the Counties of England. A History of Kent Volume III*, (ed. W. Page), London: Constable and Co.

VCH 1 Leics, 1907, *The Victoria County History of the Counties of England. A History of Leicestershire Volume I*, (ed. W. Page), London: Constable and Co.

VCH I Norfolk, 1901, *The Victoria County History of the Counties of England. A History of Norfolk Volume I*, London: Constable and Co.

VCH 1 Somerset, 1906, *The Victoria County History of the Counties of England. A History of Somerset Volume I*, London: Constable and Co.

VCH 4 Surrey, 1912, *The Victoria County History of the Counties of England. A History of Surrey Volume IV*, (ed. W. Page), London: Constable and Co.

VCH 3 Sussex, 1935, *The Victoria County History of the Counties of England. A History of Sussex Volume III*, (ed. L F Salzman), London: University of London.

VCH 1 Wilts, 1957, *The Victoria County History of the Counties of England. A History of Wiltshire Volume I*, (ed. L. F. Salzman), London: Constable and Co.

Verhoeven, U. 1998, 'The Mortuary Cult', in Schulz and Seidel (eds.), pp. 321-321.

Walker, D. 1988, 'The Roman Coins', in Cunliffe (ed.), pp. 281-339.

Watkin, W. T. 1886, *Roman Cheshire: A description of the finds in the county of Cheshire*, Liverpool: Printed privately for the author.

Watson, S. 2003, *An Excavation in the Western Cemetery of Roman London: Atlantic House, City of London*, London: Museum of London Archaeoloy Study Series 7, Museum of London Archaeology Series.

Wedlake, W. J. 1982, *The Excavation of the Shrine of Apollo at Nettleton, Wiltshire, 1956-1971*, London: Reports of the Research Committee of the Society of Antiquaries of London No. XL.

Wells, P. S. 1992, 'Tradition, Identity, and Change beyond the Roman Frontier', in Schortman (ed.), pp. 175-188.

Wenham, L. P. 1968a, *The Romano-British Cemetery at Trentholme Drive York*, London: Ministry of Public Building and Works Archaeogical Reports No. 5, published by Her majesty's Stationary Office.

Wenham, L. P. 1968b, 'York', in Radley (ed.), pp. 117-118.

West, S. C. 1976, 'The Roman Site at Icklingham', *East Angilan Archaeology* 3: 63-126.

Westell, W. P. 1931, 'A Romano-British Cemetery at Baldock, Hertfordhsire', *Archaeological Journal* 88: 247-301.

Wheeler, R. E. M. 1943, *Maiden Castle, Dorset*, Oxford: Reports of the research Committee of the Society of Antiquaries of London No. XII, Oxford University Press.

Wheeler, R.E.M. and Wheeler, T. V. 1936, *Verulamium: A Belgic and two Roman Cities*, London: Reports of the Research Committee of the Society of Antiquaries of London.

Whimster, R. 1981, *Burial Practices in Iron Age Britain: A Discussion and Gazetteer of the evidence, c. 700BC-AD43*, Oxford: British Archaeological Reports, British Series 90.

Whiting, W. 1926, 'The Roman Cemeteries at Ospringe', *Archaeologia Cantiana* 38: 133-151.

Whiting, W., Hawley, W. and May, T. 1931, *Report on the Excavation of the Roman Cemetery at Ospringe, Kent*, Oxford: Reports of the Research Committee of the Society of Antiquaries of London, Oxford University Press.

Whytehead, R. 1986 (ed.), 'The Excavation of an Area within a Roman Cemetery at West Tenter Street, London E1', *Transactions of the London and Middlesex Archaeological Society* 37:23-126.

Wickenden, N. P. 1988, 'Excavations at Great Dunmow, Essex', *East Anglian Archaeology* 41: 16-17.

Wigg-Wolf, D. 2008, 'Coinage on the Periphery', in Bursche, Ciolek and Wolters (eds.), pp. 35-47.

Wilkinson, J. G. 1996, *Ancient Egyptians: Their Life and Customs, Volume Two*, London: Senate.

Wilkinson, R. H. 2003, *The Complete Gods and Goddesses of Ancient Egypt*, London: Thames and Hudson.

Willacy, E. and Wallworth, R. 1976, 'Exploratory Excavations at a Romano-British Site in Glasshouse Wood, Kenilworth, 1971', *Transactions of the Birmingham and Warwickshire Archaeological Society* 88: 71-81.

Willeitner, J. 2004, 'Tomb and Burial Customs after Alexander the Great', in Schulz and Seidel (eds.), pp. 312-321.

Wilson, D. R. 1964, 'Roman Britain in 1963: I. Sites Explored', *Journal of Roman Studies* 54: 152-177.

Wilson D. R. 1968, 'Roman Britain in 1967: I. Sites Explored', *Journal of Roman Studies* 58: 191.

Wilson, D. R. 1969, 'Roman Britain in 1968: I. Sites Explored', *Journal of Roman Studies* 59: 198-234.

Wilson, D. R. 1973, 'Roman Britain in 1972: I. Sites explored', *Britannia* 4: 271-323.

Wilson, D. R., Wright, R. P. and Hassall, M. W. C, 1973. 'Roman Britain in 1972', *Britannia* 4: 270-337.

Wire, W. 1846, 'Proceedings of the Central Committee June 25th 1845', *Journal of the British Archaeological Society* 1: 237-261.

Wire, W. 1847, 'Not in the Proceedings of the Association', *Journal of the British Archaeological Association* 2: 265-283.

Woodward, A. 2002, 'Beads and Beakers: heirlooms and relics in the British Early Bronze Age', *Antiquity* 76: 1140-7.

Wright, T. 1872, *Uriconium: A Historical Account of the Ancient Roman City, and of the excavations made upon its site at Wroxeter, in Shropshire,* London: Longmans, Green.

Primary sources

Aeschylus (Translated by P. Vellacott 1961). Aeschylus. Prometheus Bound, The Suppliants, Seven Against Thebes, The Persians. Middlesex: Penguin Books.

Aristophanes (Edited and translated by J. Henderson 2002). Aristophanes. Frogs, Assemblywomen, Wealth. London: Loeb.

Athenaeus (With an English translation by Charles Burton Gulick 1937). Athenaeus. The Deipnosophists. London: Loeb.

Diodorus Siculus (Translated by C. H. Oldfather 1933). The Library of History Books I – II.34. London: Loeb.

Euripides (Translated by P. Vellacott 1953). Euripides. Three Plays: Alcestis, Hippolytus, Iphigenia in Tauris. London: Penguin Books.

Herodotus (Translated by Aubrey de Sélincourt. Revised with introduction and noted by John Marincola 1996). The Histories. London: Penguin Books.

Homer (Translated with an Introduction by Richard Lattimore 1951). The Iliad of Homer. London: University of Chicago Press.

Leonidas of Tarentum (Translated into English Verse by Edwyn Bevan 1931). The Poems of Leonidas of Tarentum. Oxford: The Claredon Press.

Lucian (With an English translation by A. M. Harmon 1925). Lucian. Volume IV. London: Loeb.

Lucian (Translated by M. D. Macleod 1961). Lucian. Volume VII. London: Loeb.

Pausanias (Translated with an Introduction by Peter Levi 1971). Guide to Greece Vol. 1 Central Greece. London: Penguin Books.

Plato (Translated with an Introduction by Desmond Lee 1794). The Republic. London: Penguin Books.

Seneca (With and English Translation by F. J. Miller 1968). Seneca: Tragedies I. London: Loeb.

Unknown author (Translated with an Introduction by Andrew George 1999). The Epic of Gilgamesh: The Babylonian Epic Poem and Other Texts in Akkadian and Sumerian. England: Penguin Books.

Virgil (Translated and with an Introduction by David West 1990). The Aeneid. London: Penguin Books.

Appendix 1 – Data used to create the graphs

Chapter 4 – Modern Italy

Date of the burial	Percentage of burials	Number of burials
BC	1.1	4
1-100	32.3	114
101-200	55.5	196
201-300	8.5	30
301-400	2.6	9

Data used to create figure 8

Date of the burial	Percentage of burials	Number of burials
BC	1.1	4
1-50	13.6	48
51-100	18.7	66
101-150	28.6	101
151-200	26.9	95
201-250	5.6	20
251-300	2.8	10
301-350	1.4	5
351-400	1.3	4

Data used to create figure 9

Years in Circulation	Percentage of Burials	Number of burials
Contemporary	78.8	216
10 and under	6.7	18
11-25	3.6	10
26-50	3.6	10
51-75	2.9	8
76-100	1.5	4
100-200	2.2	6
Over 200	0.7	2

Data used to create figure 10

Date of the burial	Copper-alloy	Silver	Billon
BC	83.3	16.7	0
1-50	95.7	4.3	0
51-100	98.4	1.6	0
101-150	99	0	1
151-200	97.8	1.1	1.1
201-250	100	0	0
251-300	90	0	10
301-350	100	0	0
351-400	66.7	0	33.3

Data used to create figure 11

Date of the coin	Copper-alloy	Silver	Billon
BC	20 (71.4%)	8 (28.6%)	0
1-50	58 (100%)	0 (0%)	0
51-100	70 (98.6%)	1 (1.4%)	0
101-150	81 (100%)	0	0
151-200	40 (100%)	0	0
201-250	13 (100%)	0	0
251-300	4 (57.1%)	0	3 (42.9%)
301-350	5 (62.5%)	0	3 (37.5%)
351-400	9 (75.0%)	0	3 (25.0%)

Data used to create figure 12

Location of the coin	BC	0-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400
Head/chest	0	1 (25%)	5 (38.5%)	14 (56%)	7 (46.6%)	6 (75%)	1 (20%)	0	0
Feet/lower legs	1 (100%)	1 (25%)	1 (7.7%)	4 (16%)	1 (6.7%)	2 (25%)	3 (60%)	0	1 (100%)
Waist/upper leg	0	0	4 (30.7%)	4 (16%)	6 (40%)	0	0	0	0
Hands	0	0	1 (7.7%)	2 (8%)	1 (6.7%)	0	0	0	0
In a vessel	0	1 (25%)	2 (15.4%)	0	0	0	0	0	0
Fill	0	1 (25%)	0	1 (4%)	0	0	1 (20%)	0	0

Data used to create figure 17

Date of the burial	Percentage of burials	Number of burials
BC	5.8	32
1-100	66.1	365
101-200	20.8	115
201-300	3.3	18
301-400	4	22

Data used to create figure 19

Date of the burial	Percentage of burials	Number of burials
BC	5.8	32
1-50	27.9	154
51-100	38.2	211
101-150	16.1	89
151-200	4.7	26
201-250	1.7	9
251-300	1.7	9
301-350	1.4	8
351-400	2.5	14

Data used to create figure 20

Date	Percentage	Real numbers
BC	0.8	2
1-50	29.1	74

51-100	24.7	63
101-150	20.9	53
151-200	8.7	22
201-250	3.6	9
251-300	3.6	9
301-350	3.1	8
351-400	5.5	14

Data used to create figure 21

Years in Circulation	**Percentage of Burials**	**Number of burials**
Contemporary	69.7	374
10 and under	9.3	50
11-25	8.2	44
26-50	7.8	42
51-75	1.7	9
76-100	0.6	3
100-200	2.1	11
Over 200	0.6	3

Data used to create figure 22

Date of the burial	Copper alloy	Silver	Billon
BC	31 (100%)	0	0
1-50	155 (98.7%)	2 (1.3%)	0
51-100	203 (99.5%)	1 (0.5%)	0
101-150	91 (100%)	0	0
151-200	24 (100%)	0	0
201-250	7 (87.5%)	1 (12.5%)	0
251-300	6 (85.7%)	0	1 (14.3%)
301-350	13 (92.9%)	1 (7.1%)	0
351-400	5 (62.5%)	3 (37.5%)	0

Data used to create figure 23

Date of the coin	Copper alloy	Silver	Billon
BC	67 (93.1%)	5 (6.9%)	0
1-50	248 (99.2%)	2 (0.8%)	0
51-100	285 (100%)	0	0
101-150	59 (98.3%)	1 (1.7%)	0
151-200	21 (95.5%)	1 (4.5%)	0
201-250	2 (40%)	2 (40%)	1 (20%)
251-300	3 (10.3%)	2 (6.9%)	24 (82.8%)
301-350	16 (100%)	0	0
351-400	1 (20%)	4 (80%)	0

Data used to create figure 24

Location of the coin	BC	1-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400
Head/chest	0	1 (25%)	0	1 (33.4%)	1 (100%)	0	2 (40%)	4 (44.5%)	2 (40%)
Waist/pelvis	0	0	2 (100%)	1 (33.3%)	0	0	0	2 (22.2%)	0
Feet/lower legs	0	1 (25%)	0	0	0	0	3 (60%)	1 (11.1%)	1 (20%)
Hands	0	0	0	1 (33.3%)	0	0	0	1 (11.1%)	0
In a vessel	0	1 (25%)	0	0	0	0	0	1 (11.1)	0
Fill	0	1 (25%)	0	0	0	0	0	0	2 (40%)

Data used to create figure 27

Location of the coin	BC	1-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400
Head/chest	0	0	1 (50%)	2 (100%)	1 (33.4%)	0	3 (25%)	21 (41.2%)	10 (34.5%)
Waist/pelvis	0	0	0	0	1 (33.3%)	0	1 (8.3%)	1 (2%)	2 (6.9%)
Feet/lower legs	0	0	0	0	1 (33.3%)	0	1 (8.3%)	13 (25.5%)	6 (20.7%)
Hands/arms	0	0	0	0	0	1 (100%)	2 (16.7%)	10 (19.6%)	5 (17.3%)
In a vessel	0	0	0	0	0	0	5 (41.7%)	2 (3.9%)	1 (3.4%)
Fill	0	0	1 (50%)	0	0	0	0	4 (7.8%)	5 (17.2%)

Data used to create figure 28

Date	Percentage of burials	Number of burials
BC	0	0
1-100	7.9	30
101-200	25.7	97
201-300	19.1	72
301-400	47.3	179

Data used to create figure 30

Date of the burial	Percentage of burials	Number of burials
BC	0	0
1-50	0.5	2
51-100	7.4	28
101-150	9.8	37
151-200	15.9	60
201-250	7.2	27
251-300	11.9	45
301-350	19.8	75
351-400	27.5	104

Data used to create figure 31

Years in Circulation	Percentage of Burials	Number of burials
Contemporary	75.2	240
10 and under	7.5	24
11-25	4.7	15
26-50	4.7	15
51-75	3.2	10
76-100	0.9	3
100-200	3.8	12
Over 200	0	0

Data used to create figure 32

Date of the burial	Copper alloy	Silver	Billon	Gold
BC	0	0	0	0
1-50	1 (100%)	0	0	0
51-100	10 (71.4%)	4 (28.6%)	0	0
101-150	19 (86.4%)	2 (9.1%)	0	1 (4.5%)
151-200	23 (85.2%)	4 (14.8%)	0	0
201-250	11 (84.6%)	1 (7.7%)	1 (7.7%)	0
251-300	15 (83.3%)	0	2 (11.1%)	1 (5.6%)
301-350	14 (87.5%)	2 (12.5%)	0	0
351-400	12 (70.6%)	4 (23.5%)	1 (5.9%)	0

Data used to create figure 33

Date of the coin	Copper alloy	Silver	Billon	Gold
BC	1 (33.3%)	2 (66.7%)	0	0
1-50	37 (100%)	0	0	0
51-100	22 (71%)	8 (25.8%)	0	1 (3.2%)
101-150	42 (91.3%)	4 (8.7%)	0	0
151-200	11 (91.7%)	1 (8.3%)	0	0
201-250	10 (71.4%)	3 (21.4%)	1 (7.2%)	0
251-300	7 (26.9%)	2 (7.7%)	17 (65.4%)	0
301-350	16 (94.1%)	1 (5.9%)	0	0
351-400	10 (38.5%)	16 (61.5%)	0	0

Data used to create figure 34

Location of the coin	BC	0-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400
Head/chest	0	0	6 (100%)	6 (54.5%)	14 (77.6%)	4 (36.5%)	8 (36.4%)	20 (47.6%)	30 (44.8 %)
Waist/pelvis	0	0	0	1 (9.1%)	1 (5.6%)	0	2 (9.2%)	2 (4.8%)	4 (5.9%)
Feet/lower legs	0	0	0	1 (9.1%)	1 (5.6%)	2 (18.1%)	3 (13.6%)	6 (14.2%)	2 (3%)
Hands	0	0	0	0	0	1 (9.1%)	0	2 (4.8%)	2 (3%)
Arms	0	0	0	0	1 (5.6%)	2 (18.1%)	1 (4.5%)	2 (4.8%)	5 (7.5%)
In a vessel	0	0	0	1 (9.1%)	1 (5.6%)	1 (9.1%)	1 (4.5%)	2 (4.8%)	4 (5.9%)
Fill	0	0	0	2 (18.2%)	0	1 (9.1%)	7 (31.8%)	6 (14.2%)	19 (28.4 %)
Bracelet	0	0	0	0	0	0	0	2 (4.8%)	1 (1.5%)

Data used to create figure 36

Date of the coin	Reece (%)	Reece (No)	Burials (%)	Burials (No)
Up to 41	0.59	991	0.57	3
41-54	1.13	1902	8.3	43
54-69	0.52	883	2.51	13
69-96	2.61	4407	7.92	41
96-117	2.12	3575	2.89	15
117-138	2.35	3970	5.02	26
138-161	2.9	4887	5.8	30
161-180	1.4	2367	1.16	6
180-192	0.4	679	1.16	6
192-222	0.96	1618	2.51	13
222-238	0.42	714	0.39	2
238-260	0.57	966	2.9	15
260-275	12.59	21253	4.83	25
275-296	10.76	18155	2.7	14
296-317	1.38	2336	2.12	11
317-330	3.2	5403	6.95	36
330-348	22.42	37839	12.16	63
348-364	8.25	13917	10.04	52
364-378	8.65	14604	7.14	37
378-388	0.33	555	0.77	4
338-402	16.45	27736	12.16	63

Data used to create figure 38

Date of the burial	Italy	Germany	Revised Germany	Britain
BC	1.1 %	5.8%	0.8%	0
1-50	13.6%	27.9%	29.1%	0.5%
51-100	18.7%	38.2%	24.7%	7.4%
101-150	28.6%	16.1%	20.9%	9.8%
151-200	26.9%	4.7%	8.7%	15.9%
201-250	5.6%	1.7%	3.6%	7.2%
251-300	2.8%	1.7%	3.6%	11.9%
301-350	1.4%	1.4%	3.1%	19.8%
351-400	1.3%	2.5%	5.5%	27.5%

Data used to create figure 47

Appendix 2 – Associated published work

Paper presented at the Theoretical Roman Archaeology Conference 2007. Published in Fenwick, C., Wiggins, M. and Wythe, D. 2008, *TRAC 2007: Proceedings of the Seventeenth Annual Theoretical Roman Archaeology Conference*, Oxford: Oxbow Books.

Charon's Obol? A case study in the role of coins in Roman Burial Ritual

The study of coins in Roman burials is often limited to their dating value, with interpretation traditionally assumed to be payment to Charon, the ferryman, for safe transportation across the river Styx to the afterlife (Toynbee 1971: 49). One of the first references to the Charon myth is in Aristophanes' *Frogs* (140), where the fee of two *obols* is mentioned by Heracles. This, combined with the beginning of the appearance of coins in Athenian burials in the Hellenistic period (Kurtz and Boardman 1971: 166), led to the supposition that these coins were payment to Charon. The subsequent inclusion of coins in Roman burials was considered an adoption of the Greek practice. There has been frequent discussion of the role of Charon and coins in Roman and Greek burial ritual (Sullivan 1950, Grinsell 1957, Toynbee 1971, Kurtz and Boardman 1971, Philpott 1991 and Stevens 1991) but few attempt a more specific analysis of this practice (Gorecki 1975 being a notable exception). Yet, across the space and time of the classical world, variation in the uptake and interpretation of this idea might be expected and therefore should be investigated.

As an initial step towards examining this issue, this pilot study has systematically analysed the coins and their context in the burial from selected areas in the north-west provinces. The aim is to see if any patterns emerge when one analyses the geographical and chronological spread of this practice. By gathering a range of data from the burials, I aim to analyse the frequency, differential adoption of, and variability in the custom. Although this initial work is inevitably limited geographically, significant variability in the habit over time, in metal type compared to other contexts, and in coin location in the grave have been identified, which show

that this was not a unitary, unchanging phenomenon. It is not my intention to deconstruct the Charon's obol myth but to present the argument that if one looks closely at the practice of placing a coin in the grave, the patterns that emerge are much more complex.

Methodology

The main focus is Roman Britain, as the contextual data are readily summarised by Philpott (1991). This is compared with the evidence from the Rheinhessen and Pfalz regions of Germany, and with the more limited evidence from outside of the Empire, specifically Denmark and parts of NE Germany (Niedersachsen, Mecklenburg–Vorpommern, Brandenburg and Berlin). Analysis concentrated on the period up to the middle of the third century A.D., a time of rapid devaluation of silver coinage (Abdy 2002: 33), when the decrease in the precious metal content had a major effect on the usage of coins. The following aspects of the coins and burial were investigated: burial type, sex and age of the occupant, burial date, number of coins in each burial, date of issue, the position of the coin in the grave, metal type, denomination, obverse and reverse type, evidence of use (e.g. wear, piercing) and association with other grave goods. Data for Britain were gathered from Philpott (1991); for Germany the series '*Die Fundmünzen Der Römischen Zeit in Deutschland'* (Chantraine 1955, Franke 1960, Laser and Stribrny 2003) was used, supplemented by some more recent publications. For Barbaricum, the '*Corpus der Römischen Funde im Europäischen Barbaricum*' (Laser and Ulrich 1994, Laser and Schultz 1995, Ulrich 1998, Erdrich 2002) and Nielsen (1987–88) were used. This gave a dataset of 158 burials from Britain, 305 from Germany and 44 from beyond the frontier.

This dataset was then analysed to provide information on a number of questions. Firstly, the variability in coin deposition over time was examined in order to determine how the selection of coins for burials correlates with coin loss on settlements. Secondly, metal type was analysed to investigate whether higher or lower value coins were found in burial contexts. Thirdly, the location of the coin in the burial and possible reuse is explored, to consider the range of symbolic significance. In each case, the central concern was to ascertain whether the practice of coin deposition is constant or shows variability both within and between

provinces. My hypothesis is that variability in depositional practices should provide insights into variations in the interpretation of the custom in different regions.

A number of problems must be taken into consideration. Publications often provided insufficient information about the archaeological context of coins in graves. For instance, the FMRD does not give contextual information, while for Britain, the numismatic detail was limited; within the constraints of this project it was not possible to chase all the original material / publications. Furthermore, there was a lack of detailed information from older excavation reports.

Coin deposition over time

Focusing first on the British data, their chronological distribution was compared to Reece's British average (Reece 1991), to see if the deposits of coins in burials mirrored general patterns of coin loss. The issue of how long coins were in circulation before burial is considered below. Of course, neither reflects the coinage in circulation, and the taphonomic pathways are very different, with one representing losses and the other deliberate deposition, but the site finds provide an initial benchmark to throw up the contrasts between the two.

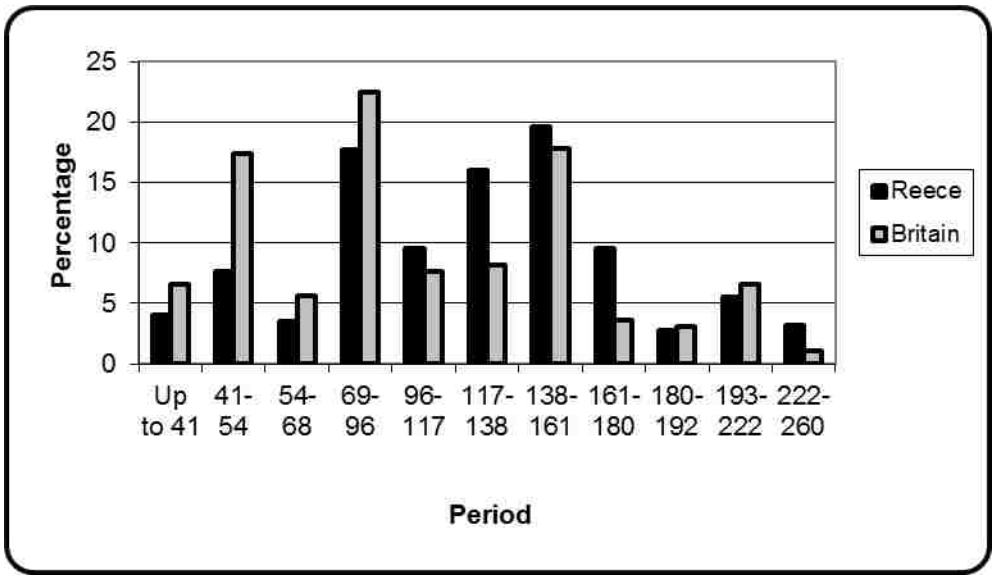

Figure 1: Britain – Percentage of coins in burials compared to average site loss (data from Philpott 1991)

The graph illustrates that the burial data loosely mirrors the overall trends noted by Reece; however, there are irregularities (Fig. 1). Throughout the first century, coins are preferentially deposited in burials, with the habit being proportionally less common throughout most of the second century. Chi-squared testing of this data has shown it to be significant (see appendix 1).

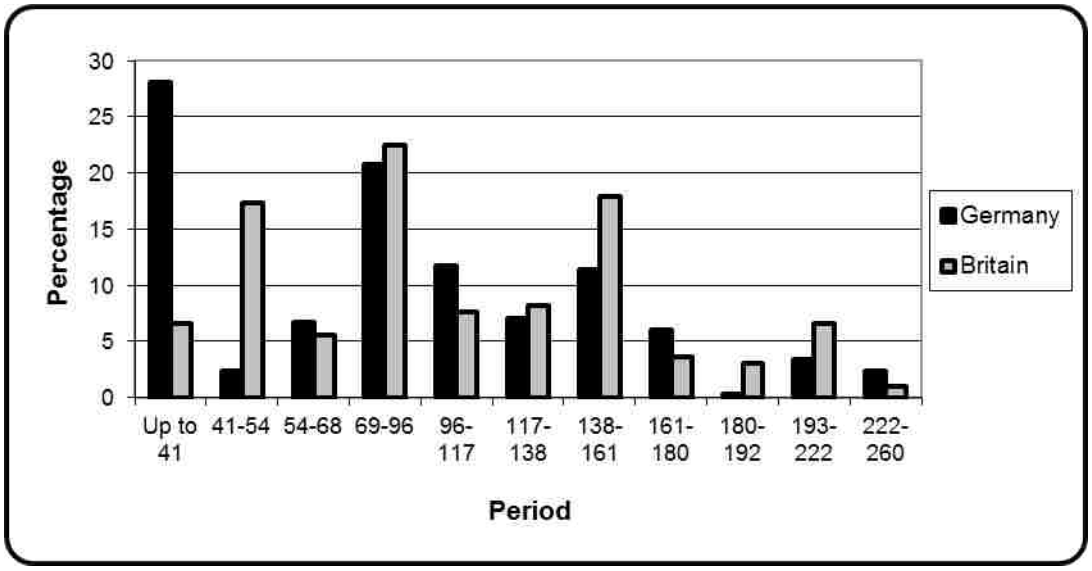

Figure 2: Germany – Percentage of coins in British burial compared to Germany (data from Chantraine 1955, Franke 1960, Laser and Stribrny 2003)

The German evidence shows some differences from the British (Fig. 2). It does of course start earlier, with a substantial early peak indicating, as with Britain, a rapid adoption of the habit. After the early peak, the two graphs follow similar trends, with only slight differences.

The number of coins from burials in Free Germany and Denmark are rather few, and must be used with caution. Subtle differences are unlikely to be statistically significant, but overall a great deal of the examples are second century in date: 49% for free Germany (data from Laser and Ulrich 1994, Laser and Schultz 1995, Ulrich 1998, Erdrich 2002) and 56% for Denmark (data from Nielsen 1987–88). This may be comparable to the other evidence of coins from these areas, notably the hoard data, as the evidence for hoards stops in this period (Berger 1993).

The graphs show that within the provinces there is a notable early adoption of this practice, which declines in the second century. In Barbaricum, the practice is

concentrated in the second century, probably linked to the availability of coins at this time.

Metal Type

The metal type of the coins in the burials was analysed for trends and anomalies. Two graphs were created using the British data; one dividing the coins by the date of the burial (e1 is early first century, l1 is late first century etc.) and a second dividing the evidence by coin date.

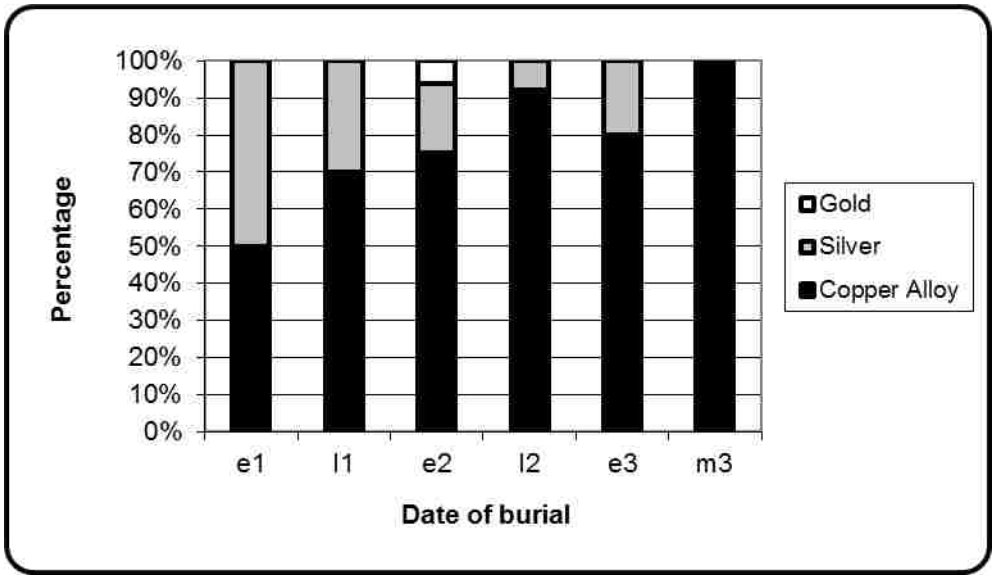

Figure 3: Metal type of coins used in burials in Britain (data from Philpott 1991)

The graph using the burial dates clearly shows a steady increase in copper alloy coins through time (fig. 3), which could represent attempts to retain the silver coinage at the beginning of the period of devaluation.

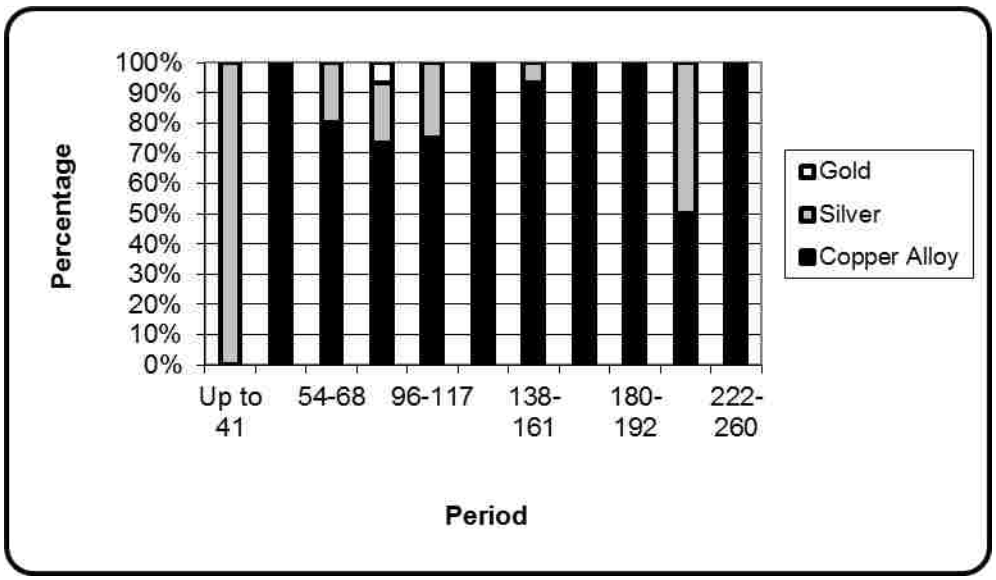

Figure 4: Metal type of coins used in each period in Britain (data from Philpott 1991)

Although sample sizes are rather small for certain periods, the graph dividing metal type using the date of the coin (fig. 4) shows a dominance of copper alloy coins from each period, with the notable exception of some Republican *denarii* from the period up to 41A.D. This was compared to coins from Richborough to see if the metal types from burials follow a similar pattern to site finds (see fig. 5). There is a clear contrast in the lack of any substantial increase in silver use in the later periods. In Germany (fig. 6), on the other hand, copper alloy coins dominate until the early third century when silver was more readily available.

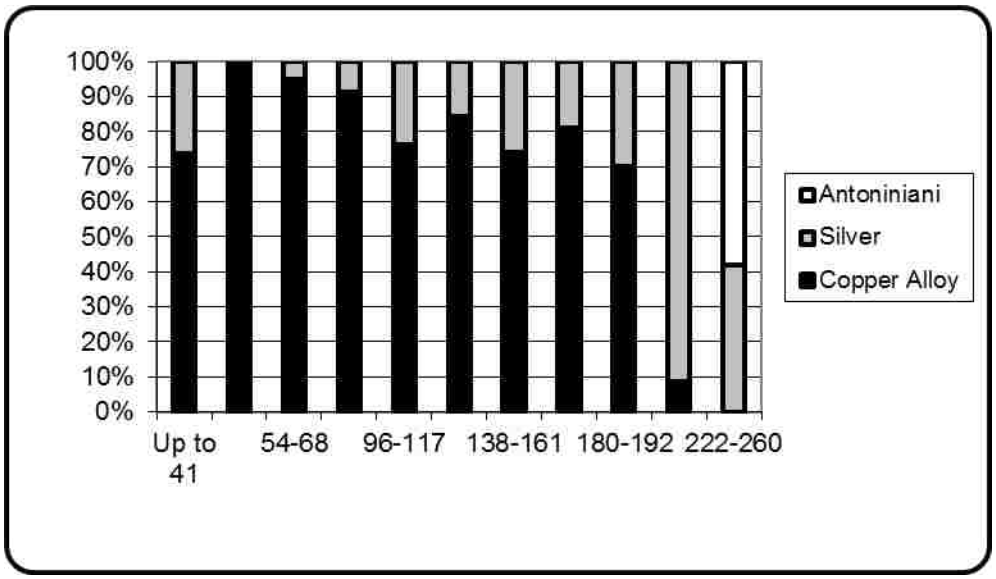

Figure 5: Metal type of coins from Richborough (data from Reece 1968)

Figure 5 shows that copper –alloy coinage dominates the Richborough sequence until the late second century but, as is common in British sites, there is increasing loss of silver (and thus presumably increasing use of silver) from the late second century. This is in marked contrast to the burial data: while both datasets are dominated by copper-alloy, in the burials the use of silver drops in the late second century.

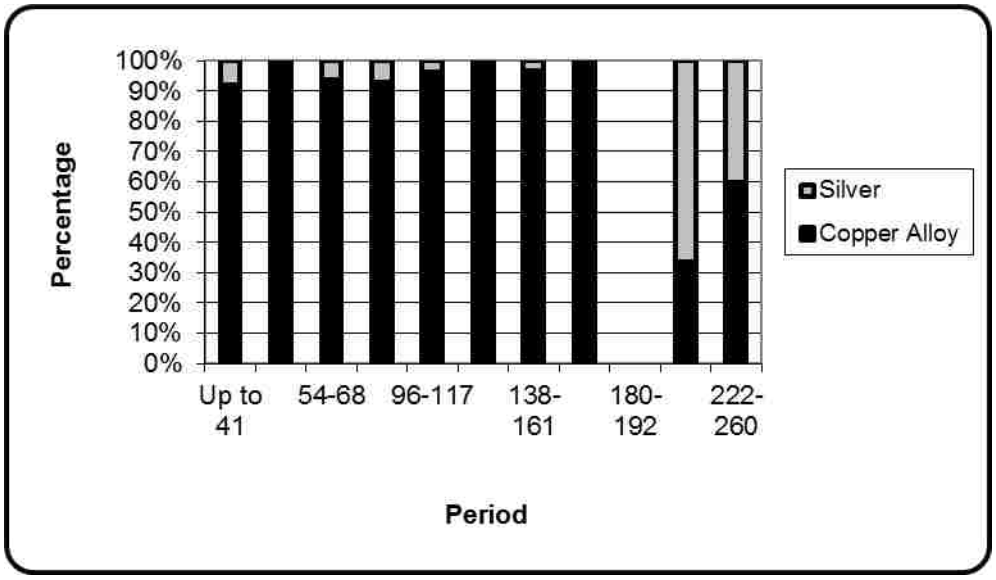

Figure 6: Metal type of coins used in burials in each period in Roman Germany (data from Chantraine 1955, Franke 1960, Laser and Stribrny 2003)

Outside of imperial boundaries, the numbers are too few to consider change through time but copper alloy coinage is markedly rare. In Denmark all the coinage within the period of study is silver, with one gold exception (data from Nielsen 1987–88). In free Germany, the metal type was more diverse but still with a high proportion of silver (50%) – although there is evidence for copper alloy coins (45%) (data from Laser and Ulrich 1994, Laser and Schultz 1995, Ulrich 1998, Erdrich 2002).

It seems clear that valuable coins were being placed in the graves outside of the imperial boundaries. This contrasts to my study areas within the Empire – here it was the presence of the coin, not its value, which was significant. This argument is supported by a comparison with the range of grave goods in the burial: coins show

no clear correlation with wealthier graves, and represent a habit unconnected with any expression of status.

Deposition of old and new coins

One key issue is how old were the coins when they were deposited in the grave: were they current coinage or heirlooms? Using the British data, table 1 plots the date of the burial (divided into early and later first, second and third century) against the issue date of the coins. As not all of the coins have been accurately dated, they have been divided into possible (P) and definite (D).

	Up to 41		**41 – 54**		**54 – 68**		**69 – 96**		**96 – 117**		**117 – 138**		**138 – 161**		**161 – 180**		**180 – 192**		**193 – 222**	
	D	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**	**D**	**P**
e1	1		1																	
l1	1		4	2	4		6	9												
e2					2		4	6	3	7	2	3		2						
l2				1	1		2	1	1		4	1	16	5	3	2		1		2
e3				1		1		2		2	1	1		4		1	1	4	4	2

Table 1: Table comparing coin issue date with burial date for Britain (data from Philpott 1991)

The trend in the table shows that, whilst most coins come from the expected circulating average of 30 to 50 years (Sutherland and Carson 1984: 10), there are some exceptions that may be significant. The burials dating to the late second and early third century show a broader chronological range of coins, with the continuation of earlier examples being placed in the grave. The later the burial, the wider the range of coins are available for deposition. However, it can be noted that the earliest two examples from burials dating to the early third century are pierced (a Claudian copy and a post-reform coin of Nero) and therefore may indicate that the

coin had more than simply a monetary value. Is it possible that the older examples are representative of a symbolic or sentimental value attached to the coin, perhaps. as a family heirloom? This is hints at a trend that can be further analysed through a closer inspection of the wear patterns on the coins themselves.

Different patterns can be identified in areas outside Imperial boundaries. The Danish evidence in particular has a very different picture, as Nielsen (1987-88, fig. 2) has shown. Most coins lived long lives before burial, often being buried centuries later.

Location in grave

Key to understanding the significance of the coin in burial practices is its location in the grave, the normal assumption being that the coin was placed in the mouth as part of the ritual to pay Charon for transport across the river Styx. A number of factors can affect the position of the coin, including decay of the body and later disturbance . Therefore, in some cases, it is difficult to ascertain the original position. Distressingly few burials have the coin position recorded, but of this small dataset, the British evidence shows that 50% of the coins were indeed found in the mouth (Table 2); if those from the chest area are included, this rises to 56%.

	Mouth	**Hand**	**By Legs**	**Foot**	**Torso**	**Clavicle**	**Bag/purse**	**Sacrum**	**Coffin Fill**
e1									
l1	4				1		1		1
e2	6		1		1				1
l2	8		1	1	2	3		1	
e3	1	1	1		2				2
M3									

Table 2: Number of coins in each period plotted against the date of the burial in Britain (data from Philpott 1991)

This was not, however, the only location for the deposition of the coins; they have also been noted in a purse, around the arms/ hands, around the legs/ feet and elsewhere in the coffin fill. It is entirely possible that these were also payment to Charon, but could different positions of the coin represent alternative ritual beliefs? They may simply have been seen as appropriate provision for the afterlife, a necessity much as food and drink were. Alternatively, could they represent different stages of the funerary process? The presence of a number of coins in the grave fill, rather than directly associated with the corpse, is of interest here. While accidental inclusion cannot be ruled out, it is tempting to interpret these as offerings cast into the grave by mourners during the burial ceremony, a reminder of the important role of the process of the burial ceremony rather than simply the event of burying the corpse (see Toynbee 1971 for the description of the burial as a process).

Reused coins

In a small number of cases, the coin had clearly ceased to be an item of exchange by the time of burial. This is seen in pierced coins, which, in Britain, total less than 4% of all coins. When worn on the body as an item of jewellery, they were often linked to other amulets. This suggests that they were worn for aesthetic and/or for protective or symbolic purposes. One example is burial 278 from Butt Road in Essex, which contained two coins of Claudius that were connected to other charms on a chain link, including a head of an African male, a pierced dog canine and a phallic amulet (Philpott 1991: 368). Another example of a similar practice is grave 81b from the Joslin collection, Essex, where the coin was suspended on an armlet with beads and a phallic amulet (Philpott 1991: 289). In such examples, it appears that the coin was not present as a payment, but perhaps was believed to offer protection to the wearer.

Specific coin choice?

An intriguing but difficult area to analyse is that of specific coin choice. This topic was touched upon earlier when analysing the issue of possible heirlooms; were particular coins being selected? There are occasional clear examples such as a child

cremation from Colchester, dating to the early first century, which contained 36 coins of only two types, 11 of Agrippa and 25 of Claudius (Philpott 1991: 289; Eckardt 1999). Hilary Cool suggested that if the coins are viewed as 'discs with images, the striking feature is how many of the reverses have single standing figures' (Cool 2000: 37). This does reflect the data from the areas studied, although it could also argued that overall there is a greater frequency of single standing figures on coins. Further study on this issue is required.

Another interesting route of analysis was suggested by MacDonald (1979). He proposes that the eye visible on the profile of the Emperor on the obverse may have had apotropaic powers (MacDonald 1979: 409). This could be tested if the side of the coin that was facing upward was recorded during excavation.

Conclusions

Although these are preliminary results, a number of initial conclusions can be presented. A key one is that the burial evidence does not appear to mirror the site loss. Both Britain and Germany show a rapid early adoption of the habit, which than declines in the late second century. An analysis of metal type in Britain and Germany shows that copper alloy coins were preferred – comparison with site coin loss indicates this is significant, and it seems the important thing was the inclusion of a coin rather than its value. In Britain, it appears most coins were drawn from circulating currency, although occasionally long-lived heirlooms can be noted. The location of the coin around the mouth is often linked to the Charon beliefs and in Britain, 50% (56% if including those on the chest) were found in this position. However, the other locations may represent other roles, or different stages of the funerary rite, while the presence of pierced coins indicates a more general amuletic or protective role.

Although this practice is rare outside the Empire, the patterns are very different. Principally, it was silver and gold coins that were deposited, suggesting status was a key issue. In addition, many coins were circulating for a long time before burial.

Further work

This paper represents the preliminary work of a much larger study. It would be valuable to look at the origins and spread of this custom from Greece and early Italy

into the rest of Europe, analysing the evolution and adaptation of this custom by the different groups that adopted the practice. Further work should assess what percentage of burials contain coins and, provide a more detailed analysis of specific coin types to see if the suggestions made by Cool and MacDonald about the symbolism of coin imagery hold true. There is no suggestion here that the Charon interpretation needs to be discarded; but although it is a large part of the symbolic function of the coin, it cannot account for all instances of coins in burials.

Archaeology, School of History, Classics and Archaeology, The University of Edinburgh

Acknowledgements

I would like to thank Dr Fraser Hunter (National Museums of Scotland) and Dr Eberhard Sauer (University of Edinburgh) for their comments and guidance in this work. In addition, I am particularly indebted to Jenny Hall (Museum of London) for her assistance in obtaining details for the coins in the London burials. Thanks also go to Dr Niall Anderson (University of Edinburgh) for his assistance with the statistics. I would also like to thank Genevieve Close and Kim Robertson for the coffee and suggestions.

Bibliography

Ancient Sources

Aristophanes (Edited with Introduction and Commentary by Kenneth Dover 1993). *Frogs.* Oxford: Claredon Press.

Modern Sources

Abdy, R.A. 2002. *Romano-British Coin Hoards*. Buckinghamshire: Shire Publications.

Berger, F. 1996. Coins Finds and Coin Use in the Roman World. In C.E. King and D.G. Wigg (eds.) *The Thirteenth Oxford Symposium on Coinage and Monetary History 25.–27. 3. 1993*. Berlin: Gebr. Mann Verlag: 55-61.

Carroll, M. 2001. *Romans, Celts and Germans: The German Provinces of Rome*. Gloucestershire: Tempus Publishing Group.

Casey, P.J. 1980. *Roman Coinage in Britain*. Bucks: Shire Publications Ltd.

Chantraine, H. 1955. *Die Fundmünzen Der Römischen Zeit in Deutschland: Abteilung IV – Rheinhessen, Band 2 – Pfalz*. Berlin: Verlag Gebr. Mann.

Cool, H. E. M. 2000. The Significance of Snake Jewellery Hoards. London: Britannia Vol. 31: 29-40.

Eckardt, H. 1999. The Colchester 'Childs Grave. London: Britannia Vol. 30: 57-90.

Erdrich, M. 2002. *Corpus der Römischen Funde im Europäischen Barbaricum: Band 4 – Hansestadt Bremen und Bundesland Niedersachsen.* Bonn: Dr. Rudolf Halbelt GMBH.

Franke, P. R. 1960. *Die Fundmünzen Der Römischen Zeit in Deutschland: Abteilung IV - Rheinhessen, Band 1 – Rheinhessen*: Berlin: Verlag Gebr. Mann.

Grinsell, L.V. 1957. The Ferryman and His Fee: A Study in Ethnology, Archaeology and Tradition. London: Folklore Vol. 68: 257-269.

Gorecki, J. 1975. Studien zur Sitte der Münzbeigabe in römerzeitlichen Köpergräbern. Frankfurt: Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts: Vol. 56: 179ff.

Kurtz, D.C. and Boardman, J. 1971. *Greek Burial Customs.* London: Thames and Hudson.

Laser, R. and Ulrich, H. 1994. *Corpus der Römischen Funde im Europäischen Barbaricum: Band 1 – Bundesländer Brandenburg und Berlin*. Bonn: Dr. Rudolf Halbelt GMBH.

Laser, R. and Schultz, E. 1995. *Corpus der Römischen Funde im Europäischen Barbaricum: Band 2 – Freistaat Sachsen*. Bonn: Dr. Rudolf Halbelt GMBH.

Laser, R. and Stribrny, K. 2003. *Die Fundmünzen Der Römischen Zeit in Deutschland: Abteilung X – Sachsen-Anhalt*. Mainz: Verlag Philipp von Zabern.

MacDonald, J.L. 1979. Religion. In Clarke, G. (eds.) *Pre-Roman and Roman Winchester Part II: The Roman Cemetery at Lankhills*: Oxford: Clarendon Press: 404-424.

Nielsen, S. 1987-88. Roman Denarii in Denmark – An Archaeological Approach. Nordisk Numismatisk Årsskrift: 147-167.

Philpott, R. 1991. *Burial Practices in Roman Britain: A survey of grave treatment and furnishing A.D. 43 – 410*. England: BAR British Series 219.

Reece, R. 1968. Summary of the Coins from Richborough. In Cunliffe, B. (eds.) *Fifth Report on the Excavation of the Roman Fort at Richborough, Kent*: Oxford: Oxford University Press: 200-217.

Reece, R. 1991. *Roman Coins from 140 sites in Britain.* Dorset: The Dorset Press.

Robertson, A.S. 1978. The Circulation of Roman coins in North Britain: the evidence of hoards and site-finds from Scotland. In Carson, R.A.G. and Kraay, C.M. (eds.) *Scripta Nummaria Romana: Essays presented to Humphrey Sutherland.* London: Spink and Sons: 186–197.

Stevens, S.T. 1991. Charon's Obol and Other Coins in Ancient Funerary Practice. Canada: Vol. 45: 215-229.

Sullivan, F.A. 1950. Charon, the Ferryman of the Dead. The Classical Journal: Vol. 46: 11-17.

Sutherland, C.H.V. and Carson, R.A.G 1984. *The Roman Imperial Coinage: Volume I*. London: Spink and Son Ltd.

Toynbee, J.M.C. 1971. *Death and Burial in the Roman World*. London: The John Hopkins University Press.

Ulrich, H. 1998. *Corpus der Römischen Funde im Europäischen Barbaricum: Band 3 – Bundesland Mecklenburg-Vorpommern*. Bonn: Dr. Rudolf Halbelt GMBH.

Appendix 1

	Reece	**Britain**
Up to 41	991	13
41-54	1902	34
54-68	883	11
69-96	4407	44
96-117	2367	15
117-138	3970	16
138-161	4886	35
161-180	2367	7
180-192	679	6
193-222	1618	13
222-260	780	2

Table 3: Total numbers of coins in each group used for the chi-squared test

The chi-squared test showed a chi-squared value of 50.4, with a degree of freedom of 10 and giving a p-value of 2.2 x 10^-7. This is very strong evidence that two underlying distributions are significantly different and warrant further investigation.

A Kolmogorov-Smirnov test was also attempted. However, as my data are categorical and presented in a contingency table (i.e. counts within a specific groups/time periods), this was not effective.