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Birds, Beasts and Burials:
A study of the human-animal relationship in Romano-British St. Albans

by

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ABSTRACT

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BIRDS, BEASTS AND BURIALS: A STUDY OF THE HUMAN-ANIMAL RELATIONSHIP IN ROMANO-BRITISH ST. ALBANS

Brittany Elayne Hill

The human-animal relationship is one that has been pondered by scholars for ages. It has been used to define both what it means to be "human" and what it means to be "animal". This thesis examines human-animal relationships as found in the mortuary record within the area of Verulamium which is now situated in the modern town of St. Albans. Once considered to be a major centre, the mortuary rites given to its people suggest high variabilities in the approach to the "personhood" of certain classes of both people and animals. While 480 human individuals were examined, only a small percentage was found to have been afforded the rite of a human-animal co-burial. It is this small percentage that will be examined in greater detail. Of major concern are the treatments to both the human and animal pre- and post- burial and the point at which the animal enters into the funerary practice.

These questions are investigated primarily by using zooarchaeological and human osteological techniques, but also refer to primarily literary sources and other data. This analysis is situated in a broader theoretical approach on human-animal relationships and which adopts a non-anthropocentric view point. In order to investigate the data holistically, both interactions in life and in death were observed as far as the faunal record would allow.

It is concluded that within the St. Albans area a specific relationship between certain classes of humans and specific domestic animal individuals existed and is demonstrated through their mutual participation in rites that extended beyond the typical agricultural needs. It was also recognised that different animal individuals within the same species would fulfil the ultimate role of 'food item'. However, these roles would most likely not occur simultaneously in this area.

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Declaration of Authorship

I, Brittany Hill, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

'Birds, beasts and burials: A study of the human-animal relationship in Romano-British St. Albans'.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission.

Signed: .....

Date: .....

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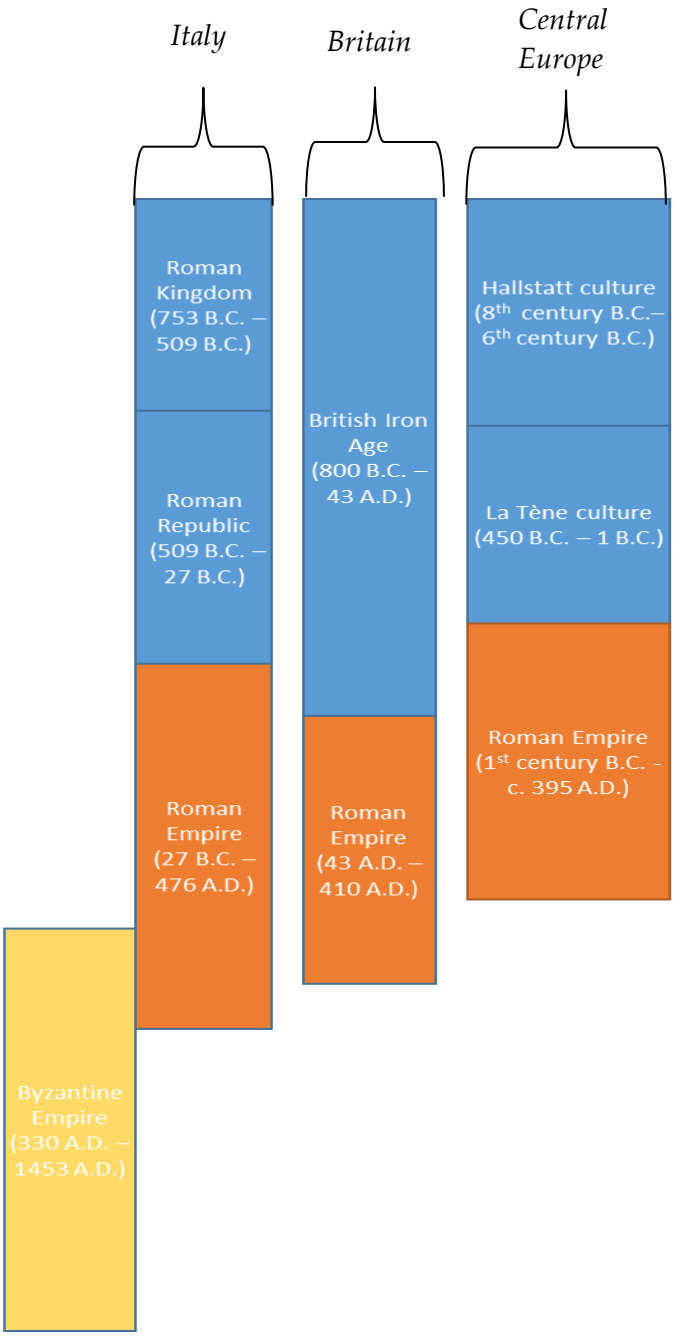
I also acknowledge Simon West (at the St. Albans unit warehouse) for his continued support, suggestions and background knowledge of the excavations and collections as well as allowing me access to the majority of my skeletal remains used in this study. I must also thank Dr. Julia Farley with the British Museum for granting me access to their collections as well as Marta Mroczek and Marianne Eve at Blythe House for gathering the skeletal material and offering suggestions when things were not working.

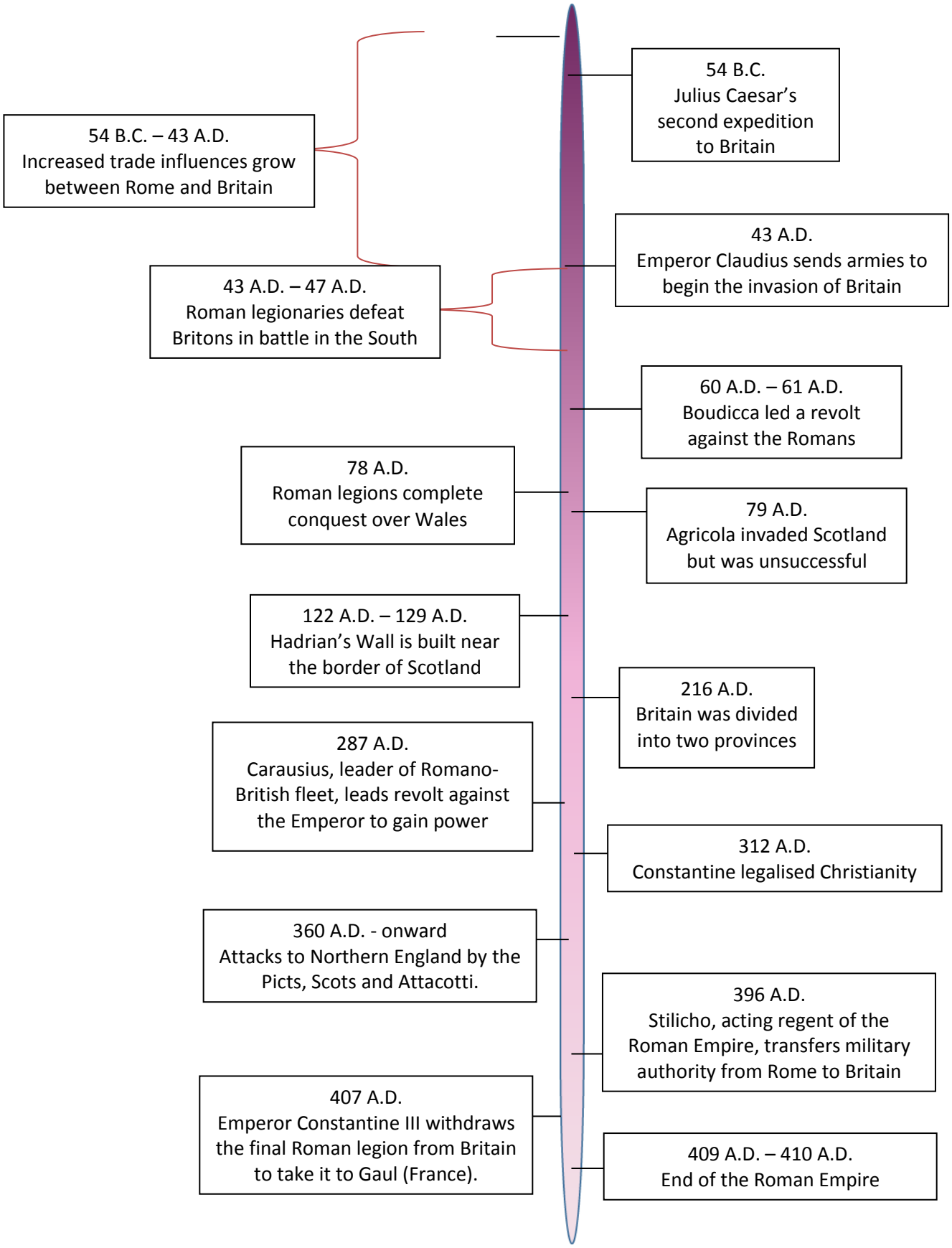
I must also thank the University of Southampton for various travel grants, which have financed portions of my journeys up to St. Albans to undertake skeletal analysis. Additionally, I must also thank Dr. Sarah Inskip for driving me up and back from St. Albans with material as well as Jill Phillips and Dale Serjeantson for helping me return that material to the warehouse.

Finally, yet importantly, I would like to send my deepest thanks to my family, closest friends and my Sensei for putting up with my emotional rollercoaster that has lasted for the entirety of this thesis. Without your continued motivation, support, patience and understanding I would not have made it through.

Timeline for the spread of the Roman Empire



Timeline of the Roman Empire in relation to Britain



List of Abbreviations and definitions

MNI:	Minimum number of individuals
NISP:	Number of individual specimens
FL:	Folly Lane
CF:	Cross Farm
SS:	St. Stephen's cemetery
KHL:	King Harry Lane
KHL R:	King Harry Lane (Roman)
Cremains:	The cremated remains of an individual

1 Chapter One: Animals and their fuzzy role in death

The study of human burials allows us to connect a human individual, who embodies both a biological and cultural history, with a time and place in the past (Stutz and Tarlow 2013). Robb (2013) argues that despite modern archaeologists referring to themselves as studying mortuary archaeology, certain aspects of death such as the attitudes towards it, the management of it and cultural elaboration of it have been mostly ignored. Instead, many researchers have used mortuary archaeology as a window into past social organization, ethnic affiliation, cultural relationships, and so on, instead of recognising the importance of the physical remains themselves (Stutz and Tarlow 2013). However, some relatively recent work has notably engaged the actual dead body as a material object, as it undergoes a series of culturally constructed events prior to its interment (Nilsson Stutz 2003; Sofaer 2006; Fahlander & Oestigaard 2008). This work challenges us to rethink the body and the person in death but fails to recognise and address the variable position of specific animals within burial contexts, the subject of this thesis.

Despite the commonality of human and faunal remains being placed together in a structured burial setting throughout the ancient world, regardless of geographic location, osteoarchaeologists have tended to separate them out during their analysis (Duday 2006). The specialisation of zooarchaeology rose out of trained zoologists or archaeologists called in merely to identify species (Davis 1987); thus, the early practitioners of this work were inclined to focus on economic and/or ecological impacts. As such, this led to the labelling and categorizing of animal remains, whether they were found in pits, hearths or burials as food items. Davis' (1987) description of the field as "basically the study of the garbage of ancient peoples' meals" highlights the low opinion regarding the importance of such finds and the complete lack of acknowledgement of the possibility that certain fauna may have had influences on the social practices of human groups.

Due to the early focus on answering questions surrounding the procuring and consumption of certain animals, the range of interpretations overall has been

extremely limited. The majority of scholars regard animals as passive, rather than active agents capable of shaping of human migratory patterns, medical practices including concepts of communal health and so on. Thus preventing the human-animal relationship from being understood as anything beyond a passive biological necessity (see Pitt-Rivers 1888; Jackson 1943). Early separation of material remains has created a legacy of a disjointed record surrounding the social context thought to influence whether or not specific animals would be included within human graves. Problematically, sects of modern osteoarchaeologists choosing to specialise in either human or faunal remains, restricts their ability to recognise the significance of the combination of the two generally overlooked, amplifying this sense of separation.

Over the last few decades, these questions have slowly begun to move away from perceiving animals mechanistically, recognising that human-animal connections affect social groups on a much deeper level (Levi-Strauss 1962; Gilhus 2006; Morris 2011). Despite these developments, however, the first assumption researchers are quick to make when faunal remains are found in graves is that they are representations of a final meal and/or food that will sustain the recently deceased on their journey to the afterlife (Pitt-Rivers 1888; Philpott 1991; Ingold 2000a). This interpretation is not only found amongst research of Romano-British material but has also been applied to archaeological material elsewhere without geographic or spatial basis. Furthermore, this interpretation assumes that the society in question not only believes in an afterlife, but also that the deceased individual(s) still had a need for sustenance post-mortem. This study seeks to reject such one-sided assumptions and instead examines the human-animal relationship in a variety of different lights. Burial contexts from four sites in total (in use between 43 A.D. – 300 A.D.) within modern day St. Albans, England have been selected for comparison in order to gain a greater understanding of the local human-animal relationship in and around the major ancient city of Verulamium: Folly Lane (N= 24), King Harry Lane (N= 185) and St. Stephen's Cemetery (N=211), as well as a sample of its outlying rural population from the site of Cross Farm (N= 53).

In order to take a non-anthropocentric approach as researchers we must realise that human beings are not the central and most significant entity in the world. It needs to be understood that in a scholarly sense, researchers tend to objectify animals for their economic value, and perhaps without realising it, downplay the influence their interactions with people would have had. This research looks to break tradition and approach certain animals with an open mind, able to recognise how certain behavioural traits may have influenced how ancient people would have interacted with and regarded live animals and their deceased corpses. By taking on this viewpoint, certain animals such as pigs, chickens, sheep and cattle become primary participators within their world and thus are capable of being valued on the same sort of scale as human beings. As such, it may no longer be appropriate to label animal remains present in human burials as a 'grave good' but rather a 'grave occupant'.

By acknowledging the anthropocentric views, which have become so ingrained in current thoughts and practices due to early modern philosophical and religious scholars elevating the place of humans within the natural world, one can work to overcome these inherent biases. In order to achieve this, my research tries to find a middle ground between those who approach the Romano-British world as very emotionally charged almost romanticising the field; with those who approach the human-animal relationship as tools or machines for humans to use, manipulate and exploit for their own gain, with little or no emotional connection or consideration. This thesis will draw on research carried out, not only on archaeological material, but also scrutinise data from contemporary images like the She-wolf with Romulus and Remus, statues of Pan and Mercury as well as textual resources such as Pliny's *Naturalis Historia*, Cato's *Agri Cultura*, Cicero's *De Divinatione* and so on to create a more holistic view of the mortuary rites performed. Lastly, the analysis and interpretation of human and faunal skeletal remains will be discussed, as human and animal individuals found grouped together would have shaped each other's life and perhaps, their death.

The research questions of this thesis are:

To what extent can the human and animal osteological record tell us about the human-animal relationship as exhibited in the burial arena during the Romano-British period (43 A.D. - 300 A.D.) within the region of St. Albans?

More specifically:

What were the social practices involving animals in the Romano-British period in mortuary rituals?

How does the interaction between humans and specific animals in life differ in death for the Romano-British period?

Can we see, archaeologically, variation within human-animal relationships within a region such as rural versus urban spaces, high versus low social rank, age, biological sex, gender, etc.?

Are there any societal factors surrounding the human-animal relationships, which lend themselves to the inclusion or exclusion as, part of particular burial rites within this region?

Does the social perception of "deviant" in either species (human or non-human) affect the receiving/giving of burial rites in relation to the practice of co-burial?

As this thesis is primarily concerned with the nuances surrounding the burial of skeletal remains, the analysis of material includes but is not limited to the standard osteoarchaeological methods such as the detection of minimum number of individuals (MNI) interred, the number of individual faunal remains, including the variety of species, and the manner in which the remains were deposited. The level of attention paid to the care given to the human and faunal remains found within burials is an important and, perhaps unique point of this thesis. For instance, the meaning behind faunal remains mixed into human cremations can be interpreted very differently to those found whole, unburned and placed on a dish. Therefore,

the material can be defined as constituting three types of skeletal (human and/or animal) remains (modified from Morris 2008):

1. Remains which have been deposited with some portion of their flesh or connective tissue still attached, causing them to remain in articulation.

2. Remains that have been deposited in articulation but became disarticulated through the taphonomic processes and are subsequently recognised and identified as constituting a single individual.

3. Remains which constitute disarticulated material when deposited, but have undergone a process (i.e. cremation) prior to burial which aided in such disarticulation. These remains may be recognised as containing elements from two or more human or animal occupants but may be impossible to be fully separated. In which case, repeated skeletal elements above the normal count for that particular species will result in a note of the minimum number of species but the total weight (pertaining to cremated remains only) will be taken as one individual.

Despite the difference in the degree of preservation between cremation and inhumation burial rites, the same general osteological methods for the identification of demographic data have been applied to both sets of material. The recording of weight and colour variation, which can be used to identify recovery methods and burning temperature amongst the cremation material, was not necessary for the few cases of inhumed skeletal material. Going beyond general demographic data, this project aims to examine the peri-/post- mortem treatment for human and faunal individuals associated with both inhumation and cremation burial rites. Traditionally, when burials are examined for the inclusion of animal remains, percentages are taken on a whole-site basis rather than a case specific basis which allows for a pattern (if any) to emerge which may point to specific age, sex, gender or other factors which the individuals may have had in common permitting the

burial rite to occur. It is my belief that by merely examining the trend of receiving animals within human burials while disregarding demographic nuances has created a false perception of a low-occurring and therefore unimportant burial trend exacerbating the overlooking of what could be an important culturally constructed social practice. Therefore, instead of approaching the practice on a whole site basis, I will use age and biological sex divisions to see if there is in fact a specific group or groups to which the tradition of animal inclusions was associated.

In addition to examining the osteological material, I will also consider the broader social context which may have governed those burial rites to occur. As discussed, I believe that previous authors whom have approached the topic of human-animal co-burials were quick to 'explain away' the presence of faunal material in burials as food items without having the proper osteological evidence to back up these claims. By highlighting the importance of examining every aspect of the burial such as the peri- and post- mortem treatment of the body, structure of the grave, and the funerary objects included in the final rite we may recover information on human-animal relationships within the burying community which are thought to generally be lost in the archaeological record (Duday 2006). However, this relies heavily on the way in which material was recorded during excavation and depends upon whether or not those records have survived in order to be studied later on. Branching off from Duday's (2006) work, I examine the use of space within burials, preserved through photographs and drawings, to explore the possibilities of previously undiscovered information regarding preparatory practices and pre-burial treatments of the corpse, as well as additional post-burial practices such as the re-opening of graves, manipulation of bones, dismemberment and act of secondary burial.

As Chapman (2013) points out gravegoods are much more visible in the archaeological record than social practices/cultural beliefs in terms of being able to recognise shared cultural traditions within particular social groups. This may include the appropriateness of grave monuments or offerings to either the deceased individual or a deity within the individual's religious pantheon, the solidification

of prominent household or individuals or, on the other hand, the inequality of households or individuals. In short, the faunal skeletal fragments found within certain human burials may in fact be the physical embodiment of attempting to display such social constructions and therefore deserve to be considered in much greater detail than they currently are. By cataloguing the presence or absence of these items, previously unidentified patterns may emerge which may further the current understanding of how social/biological age groups were differentiated during the time period in question. Thus, the secondary concern of this project examines how the information gathered from the number, variety and manner of deposition of objects such as metals, ceramics and glass found within the grave or around the gravesite informs both the community of the time and the modern scholar about the social status of the dead individual.

The topics to be covered in this thesis are summarised here.

Chapter two provides the reasoning for my pursuit of this topic as a PhD explaining both how I came up with the idea of my topic and why I chose to pursue it. Moreover, it pinpoints my mind-set and growth in regards to the subject matter over the course of this project.

Chapter three offers a contextual background for the archaeological sites themselves within the time period it was inhabited as well as the history of previous research carried out on the material used in this study. introduces the sites which will be the focus of this thesis and also gives a history of the research which has been carried out on the sites previously both in the form of excavations and data analysis.

Chapter four introduces the methodological principles of the study and confronts some of the limitations faced when working with modern assignment of ambiguous categories in order to classify ancient individuals such as age cohorts, gender roles or interpretation of societal status at the time of death. Additionally, it gives the

specifics on the resources used (e.g. recording sheets, excel spreadsheet, burning temperature charts, etc.) for the osteological analysis of both human and faunal remains.

Chapter five presents the human and animal skeletal data in a themed manner in order to allow the most significant patterns to be discussed in such a way that the greatest information possible can be gained from the research.

Chapter six focuses on the vast array of human-animal interactions found during the Roman period. It also acts as a foundation for the interpretation of human-animal relationships to be evaluated and discussed later on in this thesis.

Chapter seven aims to put into context the Roman life style and scrutinize whether what we find in Roman literature is applicable, not only to the living culture, but also the mortuary culture of the Romano British people of St. Albans.

Chapter eight aims to address the use of animal motifs amongst other funerary artefacts including bone, metal and other ceramic objects. It also questions whether there is a correlation between the inclusion of animals in physical form (i.e. skeletal remains) and a more representative form (i.e. objects).

Chapter nine focuses on additional pottery items and their place within the Romano-British burial arena alongside animal skeletal inclusions. Questions regarding evidence of mortuary feasting are also addressed.

Chapter ten examines the differences, if any, between the animal species which participated in the burial arena from the living animal in an attempt to understand

more fully the different facets of the Romano-British culture as seen within Verulamium and how that extended beyond those city walls.

Chapter eleven concludes the study and discuss the potential for further research within the theoretical approach to human-animal relationships as seen in the mortuary arena. It also attempts to offer a more holistic approach when considering that individuals from a certain species may not have been equal to all others.

Chapter twelve makes final points regarding the osteological approach for this thesis and ponders ways of approaching human-animal relationships through co-burials and the methods which are used to analyse and interpret the data at hand.

2 Chapter Two: Challenging burial interpretations - A theoretical approach

My journey into focusing on the human-animal relationship was inspired from researching a module assignment during my master's degree, which involved examining the role of the hunter versus the hunted and the relationship which evolved between the two. During this time, I came across literature from an Ancient Monuments Laboratory report (Mays and Steele 1995) which described the presence of ravens and chickens in Roman burials but much to my dismay did not delve deeper into the meaning behind their presence in a mortuary context. They were a merely mentioned as a side note with an unreferenced explanation about being a possible food source.

This need to understand more was perpetuated as I proceeded to ask more questions and read more about human-animal relationships as they were presented and understood from an archaeological perspective. My efforts were met with differing attitudes both on the part of peers and mentors in academia as well as from museum curators and fellow employees while I was a commercial archaeologist. I was met majorly with the opinion that "yeah people ate animals…so what? That's it, that's all they can tell you" or "we can't date them and so we don't care. What we need to find is a datable pot". However, social zooarchaeologists, including myself, I think would agree that there is much more to learn from animals than just the fact they were eaten. I believe researchers need to get away from defaulting to the easy answers when we do not actually have the physical osteological evidence to back it up. We need to examine the bones and try and reconstruct the processes they went through as both a living and a dead animal before we can conclude what their place in the burial arena meant to those that included them.

The main methodological problem, which needed to be addressed in order to obtain the necessary information was how to record the faunal remains. The recording of human inhumation and cremation burials have been considered and standardised (see Buikstra and Ubelaker 1994). However, the same cannot be said

of faunal remains when they are present in cremations. Due to a lack of detail for faunal remains in the related site reports (Niblett 1999, Roberts 1996, McKinley unpub., Stead and Rigby 1989), I walked into this thesis project without really knowing the state of the animal bones themselves (e.g. Would they be inhumed or cremated?). It quickly became clear that the vast majority of the faunal material was in fact cremated. As it stands, there is no real standardisation or recording sheets available for the recording of cremated faunal remains. I was already familiarised with the use of Serjeantson's zoning method (see Serjeantson 1996: 196-197). However, as the many of these fragments were so small they could not be adequately assigned 'zones' in the same sense. Thus it became a question of how to record the information in such a way that it would be useful for a broader analysis – i.e. what sorts of skeletal elements, or even, what 'body zones' would be important in order to gain information that would answer questions of surrounding the notion that these fragments were joints of meat.

It was also a question of how to get an idea of how to record burning temperature colour across fragmented faunal remains. It was determined that by following in the footsteps of researchers such as McCutcheon (1992: 352) and McKinley (2000) broad averages/percentages of 'the most frequently present colour' to determine the hottest temperature at which the material burned could arguably be applied to the faunal material (see Chapter 4 for a discussion of debates which exist surrounding the use of pigs as stand ins for human burning data and the application of burning temperature across mammalian, avian and aquatic species). While individual fragments were looked at for colour differences, it was necessary to identify how many fragments from a single species belonged to how many individuals within that species. As one can imagine, estimating minimum number of individuals (MNI) for species which have undergone the cremation process was difficult. After much discussion with Dale Serjeantson, my co-supervisor, on the subject it was deemed appropriate that in following the Roman/Romano-British idea of bodily pollution and the social connotations of re-use of another's cremation

pyre, it would be likely that a single faunal individual would be used for a single burial rather than used for multiple burial events. This of course could be completely wrong, but it would possibly be the subject of an entire PhD thesis itself.

The aim of this chapter is to address and present a new way of approaching animal material remains as they are found within the field of archaeology. In the previous chapter it has been highlighted that faunal remains often get overlooked as mere resources, with interpretations of archaeological material often forgetting that the bones in question once belonged to a living breathing animal that would have lived and interacted within its environment. Human-animal relationships can be motivated through direct agricultural necessity of resources, labour, and ritual/ "religious" use or indirectly through the species' perception through iconography and/or literature and folklore (Gilhus 2006; Green 2001; King 2001, 2005; Grant 2000, 2004; Hamilakis 1998; King 1999a, b; Thomas 1983). Chapters 6, 8, 9 and 11 will address in further detail how certain animal species often leave impressions in the minds of the humans based on either direct and indirect relationships or links to those animals.

The main problem I wish to address in this thesis is in regards to the manner in which previous researchers approached the faunal material. It researching this topic it has become clear that many zooarchaeologists approach the faunal material with an agricultural/subsistence bias, which in turn, has restricted how this ancient material has been analysed and perceived in the literature and by up and coming researchers to the field (King 1978, 1981, 1991, 1999a, b; Grant 2000; 2004). It is understandable that modern people view and link faunal remains with remnants of food, but that is not to say that all cultures throughout time made these same linear cultural connections. Of course groups have always eaten animals and seen them as food; however, as discussed in the previous and following chapters, I believe there was a much more complex relationship between the people of Verulamium and the animals found within their living arena.

2.1 A new take on the human-animal relationship

In order to gain a better understanding of the human-animal relationship during this period, I used multiple facets of scholarly research to try and understand the human psyche. The use of anthropological studies allows an understanding of human fears, desires and motivations to be gained from the presence of certain animals (see Armstrong and Boltzer 1993; Green 2001; Ritvo 1987). This is highly applicable when faced with teasing out information from human burial rites in which the grandeur of display is linked to solidifying (either for the deceased or those responsible for arranging the burial of the deceased) a specific position within the community (Weekes 2008, forthcoming; Hamilakis 1998). Just as diamonds and gold carry certain connotations of wealth in our own modern society so did certain expensive/exotic animals during ancient times (MacKinnon 2001; Wolch and Emel 1998). Moreover, while an animal may be considered common now, the Romano-British period of Britain not only saw an influx of new breeds of species (i.e. chickens), but it also saw a greater spread of animals which were already present on the island but restricted to a tighter geographic area (Hughes 2003).

In addition to possessing monetary values which equate to wealth, the ethnographic and anthropological studies discussed later in Chapter 6 will reiterate that certain faunal species were capable of producing emotive responses from their human counterparts. Thus, making them actors within their own environment and were deemed favourable to include in human burial rites. Whether seen by humans as tools for manipulation of the environment both agriculturally and within political standings or as individuals within their own right, the relationship between humans and animals is a far more complex one than I or many others within the field of social zooarchaeology originally ever thought.

2.1.1 Use of literary evidence

One of the main benefits in studying the burial practices from a group of people in the historical period is that texts survive which capture the cultural

perceptions of individuals from within the Roman community. This, however, can be a double edged sword. While there are letters surviving addressed from one family member to another, writings of poetry, and medical/judicial texts they are also written by a specific group within the population- typically male elites. This provides a view only into their cultural lens, rather than giving a holistic and unbiased view of the Empire. Furthermore, the majority of the writings are penned by individuals in Rome, the heart of the Roman Empire. Therefore, the attitudes conveyed by these writings do not necessarily reflect those of the inhabitants in Roman occupied St. Albans nor can they be reflective of the Empire as a whole.

By examining several pieces of work dating to the Greek and Roman period, it is clear that representations of animals as beings occur frequently, albeit these sources come from Rome and not Britain itself (Bodson 1983; Flemming 2000; Pliny, *Naturalis Historia*; Varro, *De Rustica*; Ovid, *Metamorphoses*; Tacitus, *Annals*; Lucian, *Pharasalia*; Lucretius, *De Rerum Natura* and so on). This of course can present challenges as, even within one Empire, there would have been varying interactions between human and certain animal groups. Never-the-less, I believe the works do provide an interesting viewpoint to consider as the reader moves through the thesis. In particular, I would like to focus on the comparisons of certain human behaviours which were metaphorically linked with specific animal species. I believe that in reading and addressing these works, it could capture a cultural viewpoint which lends itself to a deeper understanding of burial ritual.

2.1.2 The human-animal boundary

I argue that more scholarly attention should be given to the human-animal relationships and, particularly, to the examination of the human-animal boundary and how it created the societies we find as archaeologists and can view in our modern world. Not only are these strategies (discussed further in this chapter) used to construct boundaries for human groups, they are in fact also used to define human-animal groups (Mullin 1999). Corbey (2005: 170-72) has observed that the

human-animal boundary has also underscored the establishment and argument for and against human rights. This argument points out that the human world is made up of dualisms: nature and culture (a concept which very much follows on from Descartes discussed in Chapter 6), science and humanities and so on. Butler (1993), Moore (1994), Strathern (1996) and Hamilakis *et al.* (2002) attempt to follow an 'embodied' approach which breaks down the divide of dualistic approaches and recognises the importance of both biology and culture that help to shape the human experience.

This research proposes the same sort of embodiment to, in essence, 'blur the lines' and see how each species influenced the other's world. As such, I aim to give equal thought to all humans and animals in the living world and their place in the funerary sphere when discussing their purpose in burial grounds. Moreover, this thesis is aiming to not be isolated in one or the other sphere of human versus zooarchaeological research but bridge the two in order to present an equal and more holistic understanding of human and animal interactions both in life and in death.

2.2 The methodological approach for skeletal material

Prior to the start of this project, it was unknown as to the state of the faunal remains upon burial (were they cremated or inhumed?), their proximity to the human occupant in the burial and even the instances of faunal material to be found in the burial record from the Verulamium area. As such, the methodologies proposed at the start of this project greatly changed throughout with the identification of more varied faunal remains.

2.2.1 Identification and Quantification

I used the identification techniques common to human osteology and zooarchaeology which will be explained in detail in Chapter 4. The methods used were chosen for their abilities to compose individual profiles for those deceased human and faunal grave occupants. Although the identification process for

cremation must be accepting of a less rigid inventory than is found within inhumation material, the identification of skeletal regions (i.e. appendicular, axial, skull) remains important for gaining an idea of how many human individuals are present in a single burial. While faunal analysis is often concerned with minimum number of individuals (MNI), as traditional zoning methods applied to individual skeletal elements (explained later in Chapter 4) were not really possible due to the extreme level of fragmentation common to cremation. Therefore, a broader classification of skeletal region had to be taken here. Additionally, the application of temperatures analysis was applied similarly across the board in temperature bands, instead of using two different methods for human and faunal remains. This created a homogenisation of data between human and animal species which allowed for greater comparisons of ritual burning and collection of remains to be seen. A more in depth explanation of the analytical process can be found in Chapter 4.

2.2.2 Positioning

Information about body positioning and placement of animal skeletal material and other items such as coins, broaches, etc. was gained from examining any photographs, drawings or descriptions found within the site reports. The particulars of how the space in the grave is occupied by the deceased and various objects is important as it helps the researcher reconstruct how the body was treated prior to burial. Moreover, the manner in which the cremated remains were removed from their urns, processed and stored post-excavation preserved the fact that there was no attempt to extract faunal material that was already mixed with human material at any point (pers comm. Simon West). This point is incredibly important as it cements the attitude of the individuals from these locations that participated in the cremation, collection and ultimate burial of the deceased towards human and faunal grave occupants.

As is typical with inhumation graves, evidence suggesting the use of a filled or empty burial space was used to identify whether the individual was wrapped in some sort of shroud or placed in a wooden coffin prior to interment (Duday 2006). The justification of evidence is that individuals, who have been tightly wrapped in shrouds, if not too disturbed, should show little movement of the bones within the grave cut while individuals who were buried in a wooden coffin before interment might show more movement as the organic material deteriorated. This may include the head rolling back, the pelvis and femurs falling to the sides as well as having a potential for showing greater signs of taphonomic disturbance. I believe this approach to understanding the use of grave space should not be restricted to inhumations, but can also be innovatively applied to secondary cremation burial pits.

Despite many of the cremation burials from the Romano-British period being described as being placed in urns, a fair number are described as un-urned cremations where no vessel was found at the time of excavation. However, upon examining the degree of 'tightness' or close proximity of remains, it can be seen that some of these un-urned cremation burials may have in fact been bound in some organic pouch or box which has since deteriorated (Duday 2006; Niblett 1999, Stead and Rigby 1989). It may seem that this discussion is irrelevant to the human animal relationship, however, it is in fact the complete opposite. The burial in a ceramic urn, in an organic bundle, or the simple spread at the bottom of a burial pit will have very different meanings/connotations for the post-burial treatment of the human and animal individual.

While this method has great potential for the understanding of burial treatments, it is also understood by the author that for this method to be used to its full potential, it relies heavily on detailed recordings and excavation photographs taken during the time. It also assumes that all of these files survived in good condition and are available for the researcher to use, which is not always the case.

2.2.3 The so-called 'Object furnishing'

During my review of the literature regarding animals in human cremations, it became obvious that a number of scholars place faunal remains found within burials as a 'grave object' or 'furnishing' (Philpott 1991; Toynbee 1971; Parker Pearson 1999; Morris 2011). I find this categorisation of faunal material problematic as it neither takes into consideration the living animal that once contained the bones, nor does it reflect the influence and presence of the animal on the culture it was a part of. Contemporary archaeological material found throughout the Empire suggests that certain species could have been understood as possessing an elevated status through having served as connections to the pantheon of deities and, perhaps acted as tools in which divine messages were relayed (Green 2001; Gilhus 2006). Other species took on more symbolic ideals as their images were displayed on jewellery and military emblems (Croom 2004; Johns 1996; Hattatt 1982, 1987).

Knight's (2012) paper on co-sociality (also known and described in this thesis as the human-animal relationship) between humans and animals divides the viability of the relationship between humans and interactions with domesticated animals versus human hunters and their hunted wild animals. Knight's (2012) argument suggests that there is a greater possibility of stronger co-sociality on the basis that the two are in far greater contact with one another than hunters are with their hunted prey. However, Hill (2013) points out a key fact which seems to be overlooked by Knight (2012) in regards to the time the hunter spends thinking about the animal. Tracking, travelling, dreaming, listening, observing, and merely being near the desired animal are ways of interacting without being in direct physical contact with the animal (Hill 2013: 126). I agree with Hill's (2013) belief that a lack of the physical presence of the faunal body does not stop the bond of the human-animal relationship. In fact, I believe it makes it stronger.

Archaeologists often argue there is connection between burial pits filled with lots of pots/urns which may or may not contain faunal remains which mimic ancient table settings. While a number of animal remains found in burials in the south and

north of England have been found presented on platters and in jars, this practice seemingly does not occur in and around Verulamium. This suggests to me a very different relationship and purpose being displayed in this type of burial and should be considered further. This thesis aims to refocus the thoughts of the reader to realise the circumstances in which faunal remains are found, and this should be a determinant factor in understanding their purpose in the burial.

2.3 A new view on animality

There has long been a tradition of classifying people by different uses for certain animals and ways of relating to these animals thus there is a sense of fascination and romanticism when talking about the subject (Toynbee 1973; Green 1998, 2001; DeFrance 2009). In many ways the work carried out by these researchers is biased by the assumption that "tribal" peoples were/are and should remain closer to nature than themselves who occupy the Western world (see Green 1998, Ingold 2000a). There has been some improvement in describing animals and nature as culturally and historically specific, with some scholars arguing that nature is not a category that ordinarily can be opposed to culture or society but is intertwined within it (Descola and Palsson 1996, Mullin 1999, Armstrong Oma 2010). I propose that instead of attempting to classify groups into categories of "Western" and "non-Western", a better option would be to work on a case-by-case basis in order to determine what social factors are at play within individual social groups.

3 Chapter Three: Sites of St. Albans

Originally, it was the desire of the author to study human-animal relationships within burials on a wider scale throughout Southern Britain but it soon became clear that the sheer number of sites available and quantities of material which could be analysed was going to be far greater than the time constraints of a PhD research project would allow. It was also a surprise to the author that when attempting to contact various museums and archaeological units for material to research many of the sites which had produced faunal material discarded it after post-excavation analysis had taken place or the curators simply did not think the research question was worth their time to have the author undertake any analysis. This was not true for the curator of the St. Albans Museum, who was delighted to have someone carry out research on a number of their collections.

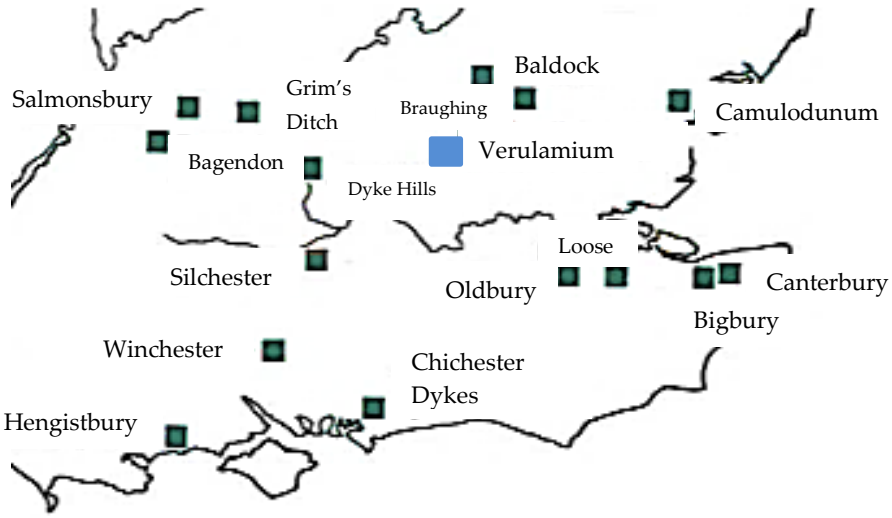


Figure 3.1: Other oppida settlements near Verulamium during the early Romano-British period (modified from Millett 1990:25).

In this chapter I introduce the archaeological sites from which the osteological material for this thesis originated from and situate them within the Roman Empire. The information gathered from remains retrieved from these sites should allow a detailed comparison to occur between the lifestyles of individuals in

urban and rural locations within one province. In order to place the funerary data within their regional context, this chapter briefly outlines the history of the area and discusses the various contexts in which the skeletal remains were discovered.

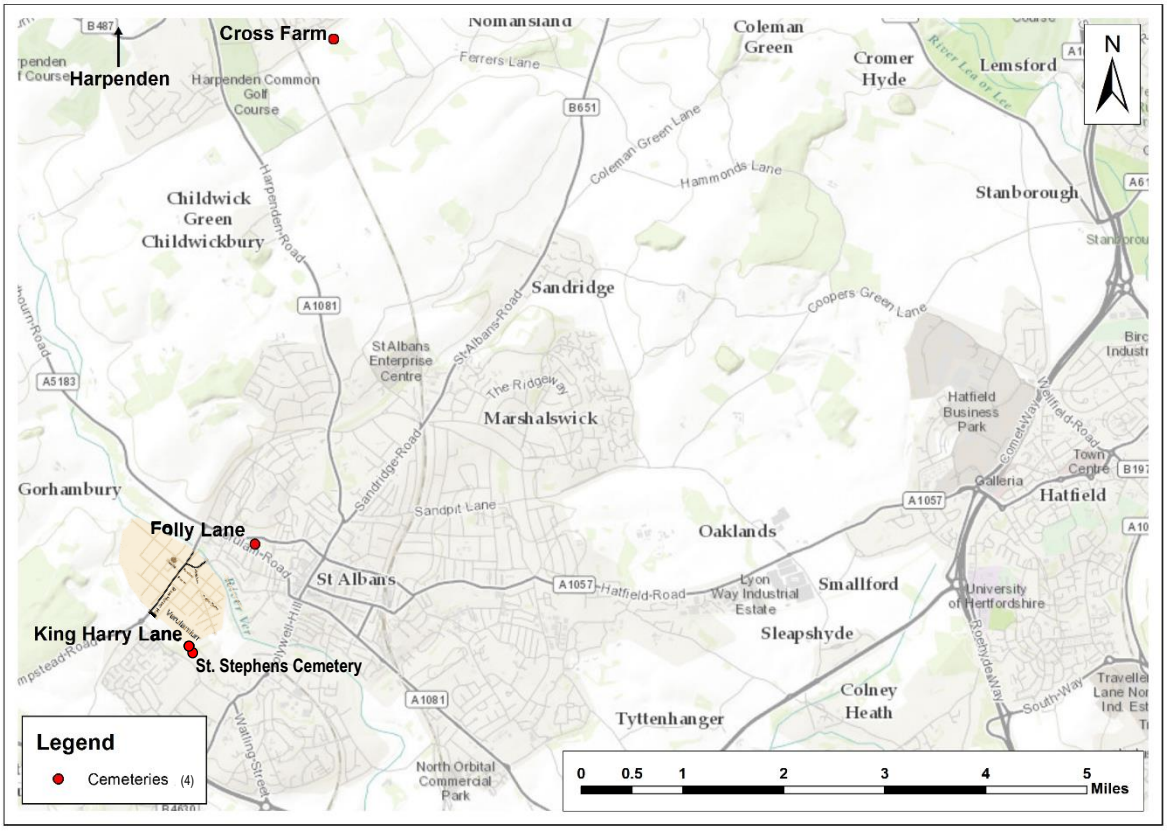


Figure 3.2: Modern location of Cross Farm Cemetery in relation to the burial grounds found within the modern city limits of St. Albans (created by author in ArcGIS).

3.1 The analysis of the early Roman settlement of Verulamium

Today the ancient town of Verulamium, what later became the centre of St. Albans, lies on the south-eastern fringe of the Chiltern dip forming a chalk plateau, sloping gently towards the east. Although there is considerable local variation, broadly speaking the soils west of the town are derived from clay with flints and are heavy and acidic which may influence the state of preservation (Niblett 2001). While the clay to the east is deeper, loamy and rather more fertile, they are still heavy and remain badly drained. Until relatively recent, it was thought that that at the time of the Roman conquest, the area around Verulamium was more or less a clearing in a woodland- implying that the settlement was minimal (Wheeler 1943).

It has since been discovered that there are over 20 archaeological sites dating to the first century A.D. within 10km of Verulamium, concentrated around the edge of the plateau and upper slopes of the river valleys, with large unoccupied land in between. This perception of the landscape, however, may be due in part to the lack of large scale excavations taking place in such "unoccupied" locations. In reference to the 20 sites, some will be included as comparative material later in Chapter 10, however, not all contained burials pertaining to the period in question and as such will not be used.

The history of the ancient town was of great interest to medieval monks and early modern historians alike. Writings from an unnamed monk detailed the repurposing of ancient materials in new building sites around the growing town and additionally noted that the state of preservation found for some of the ruins was possible due to the medieval town of St. Albans not being directly built over the ancient site but rather one kilometre from it over the supposed martyrdom site of the saint for whom the town was named after (Niblett and Thompson 2005).

The sites within St. Albans itself were subject to small-scale scattered excavations during the eighteenth and nineteenth centuries; however, the first thorough excavations were carried out by the Wheelers in the 1930s, establishing the presence of a Roman town which would later become the model for interpretations of other Romano-British towns (Niblett and Thompson 2005). Additional excavations were undertaken by Frere during the 1980s, which extended the knowledge of the pre-Roman settlement (Frere 1983). The pre-Roman settlement was situated immediately south-west of the later Roman settlement and formed part of a wider occupation of the area. Evidence included ditch enclosures, a domestic settlement, a possible ceremonial centre, coin mint and native pottery production locations (Niblett 2001; Niblett and Thompson 2005).

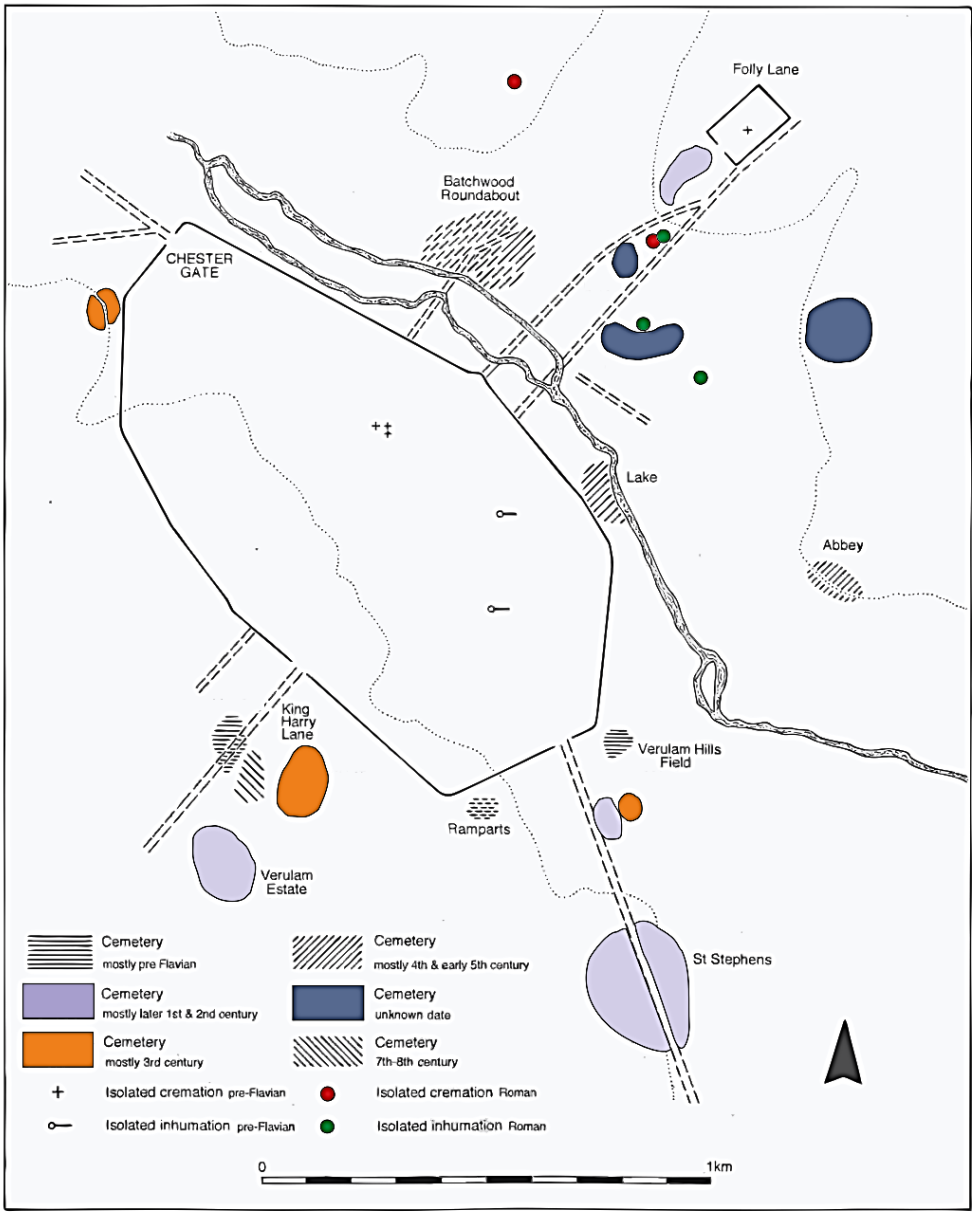


Figure 3.3: Locations of cemetery usage around Verulamium (modified from Niblett and Thompson 2005: 139). Included cemeteries not used in this thesis.

From the mid first century onwards there seems to have been a shift towards a larger early Roman town which was relatively wealthy (Niblett 2001). Little evidence for a phase of military occupation and the granting of *municipium* status lead researchers to suggest this as evidence representing an allied relationship between the Catuvellauni elites, who were native group settled in the area, and the Romans (Moore 2009).

During the first and second centuries the city was equipped with a wide range of civic buildings including forum-basilicas, temples with a *macellum,* and bath-houses (Niblett and Thompson 2005). There is evidence for a fire which destroyed many of these buildings, however, archaeological evidence suggests they were reconstructed and the town's prosperity continued through the third century (Frere 1983; Niblett 2001, 2004; Niblett and Thompson 2005). A range of economic activities occurred at the site including bronze and iron smelting, pottery production, brewing, grain milling, leather and wool working (Niblett 2001; Niblett and Thompson 2005). This has lead scholars to suggest that St. Albans was a centre of local rural trade distribution and networking. Evidence is also present for cattle marketing and commercial butchery, as explained by an extensive dump of butchered animal bones outside city walls. This further supports St. Albans as being a centre for agriculture as well (Niblett 2001). While evidence suggests the town remained relatively prosperous with evidence of renovation of buildings in the fourth century, there is also evidence suggesting town shrinkage through the abandoning of the south and south-western areas of the town.

3.2 Material for the study

The material for this research comes from Romano-British contexts across four sites within St. Albans. The artefacts and grave structures from these periods, at these sites, provide a great opportunity for advancing our scholarly understanding. While the modern city is fairly small, it was quite a large and powerful city in ancient times with a long history pre-dating the Iron Age and continuing through the Roman period best demonstrated by the several cemeteries surrounding the city. Folly Lane, St. Stephens and King Harry Lane were chosen because their data sets provided a look at various burial rites found surrounding the major city of Verulamium, while Cross Farm provides a cross-sectional comparison of a rural village on the outskirts of this region. Figure 3.2 provides a visual map to the degree of use each of these burial grounds had in relation to the other.

3.2.1 Access and previous work

The skeletal material from the site of Folly Lane is housed at the Sandridge warehouse, in St. Albans along with the skeletal material from Cross Farm, and the St. Stephen's material. Most of which were studied on location at the warehouse under the supervision of Simon West, the head curator and archaeologist of the collections and archaeological unit there. A quarter of the St. Stephens were brought back to the University of Southampton and analysed due to scheduling conflicts between the author and the curator. The skeletal material from King Harry Lane, on the other hand, is housed within the British Museum warehouses and was also studied on location.

The site report for Folly Lane contained information for both cremations and inhumations alongside animal inclusions in those aforementioned burials, thus first piquing my interest in studying the human-animal relationship as represented through the mortuary arena inspiring the undertaking of this thesis. However, this site could not be the only focus of this research as the overall number of burials is small. As such other surrounding locations and access to additional materials was sought.

Out of all the sites used in this study, King Harry Lane has probably received the most focus within the field of archaeological research detailing its similarities to Baldock (see Stead and Rigby 1986, 1989). The material itself is housed within one of the British Museum's offsite storehouses and was the last site to be granted permission to use in this study. The majority of work done currently on the material is detailing the site and its wide use as both an occupation site and an allocated burial ground, located south of the main city of Verulamium. Work regarding the animal remains focused on their use as evidence of livestock, agricultural objects and butchery/culling patterns (Fulford 2001; Hill 1993; Stead and Rigby 1989). Additionally, scholars tend to examine areas such as ethnic identity as it changes over the occupation period of the sites from the Late Iron Age through to the Anglo-Saxon period as far as the human material is concerned (James and Millett 2001; Geake 1995; Hill 1995b; Jones 1997).

Jacqueline McKinley carried out initial analysis of the human remains from St. Stephen's Cemetery housed at the Sandridge warehouse, the home of the St. Albans Archaeological Unit. This report was available in grey literature form only and the author was given access due to the willingness of Simon West, head archaeologist, of the unit. The animal remains, until now have only been noted in presence but not analyzed.

Cross Farm is another site, excavated and housed by the St. Albans Unit, which has had a lack of work done on it. Roberts (1996), which was the initial evaluation report, is the only paper published which has anything to do with the site. Much like St. Stephens Cemetery, little additional work has gone into the analysis about the relationship of the culture within the site, what has happened with the animal remains themselves or its relationship to the wider surrounding area, including the larger city of Verulamium.

3.2.2 Addressing differences in burial practice

The difference in choice of burial practice has led researchers to assume that the treatment of the deceased could relate in some way to different cultural standards regarding the preservation of the corpse. Distinguishing between inhumation and cremation practices, particularly during this period has been related to Constantine and influx of Christianity during the latter Roman period (Toynbee 1971). It is known, however, that both inhumation and cremation practices seemed to occur congruently throughout Roman occupied Britain (Philpott 1991).

It is important to understand the attitude towards cremations in modern archaeology comes from the people excavating and analysing the traditions themselves. In essence, if a complete skeleton was uncovered during excavation it would be seen as evidence that the community in question placed a higher value or preference on structured burial and whole body preservation whereas the find of a partial skeleton was considered as evidence for the exact opposite (Hill 1995a). This idea, of course, play into the Western anthropocentric view which has placed a great

belief in the preservation of the corpse. There could be, however, several explanations for a lack of human skeletal material without concluding the ancient population did not value their dead or respect burial traditions. It just may be that in such communities, these traditions did not leave evidence which survives or was correctly interpreted in the archaeological record.

While this research does not solely focus on questions of lifestyle, it has been suggested that variation in a burial rite reflects on the particular aspects of the individual's life or perhaps the circumstances of their death as having been abnormal (Wait 1985). This would include individuals who were labelled as witches or criminals or perhaps died due to suicidal actions or in child birth and as such did not fit the so-called normal criterion for burial.

It was previously thought that burnt remains were beyond the scope of recovering vital information such as species, biological age and sex due to the destructive nature of fire. Work carried out using forensic methods by researchers such as McKinley (2000; 2002) and Mays (2002) and Hillier and Bell (2007) proved otherwise. The adoption of cremation in south-east England has been used to support evidence from classical authors indicating belief in a human soul and reincarnation as the spirit is released from the body in the fire (Joy 2011: 409). Fitzpatrick (1997: 239), however, argues that the association between cremation and the existence of a soul is not universal, and the adoption of a new burial rite does not necessarily indicate new religious beliefs. From what has been discovered in the archaeological record so far, the rite of cremation during the Late Iron Age was restricted to the south and south-east of Britain; it was with the spread of the Romans that brought the rite up as far west as Wales and north to the border of Scotland (Worley 2008).

3.3 Folly Lane: A site with a ritual context

The author first came across a small publication by Mays and Steele (1995) which detailed the human inhumation and cremation skeletal data along with a small and lacking table about the inclusion of the faunal remains present amongst

some of the human burials. It was this site report which sparked my quest for further knowledge about the purpose regarding the presence of animal remains in human burials. There has been a lot of work done with the site of Folly Lane as a ceremonial site describing the various burial typologies found within the location and its correlation to the larger Verulamium city. The reports, however, offer very little in the way of describing the faunal remains within these reports offering little beyond the species and skeletal element(s) present. Niblett's (1999) report does suggest these were joint of meat but offers very little evidence to support this proposition.

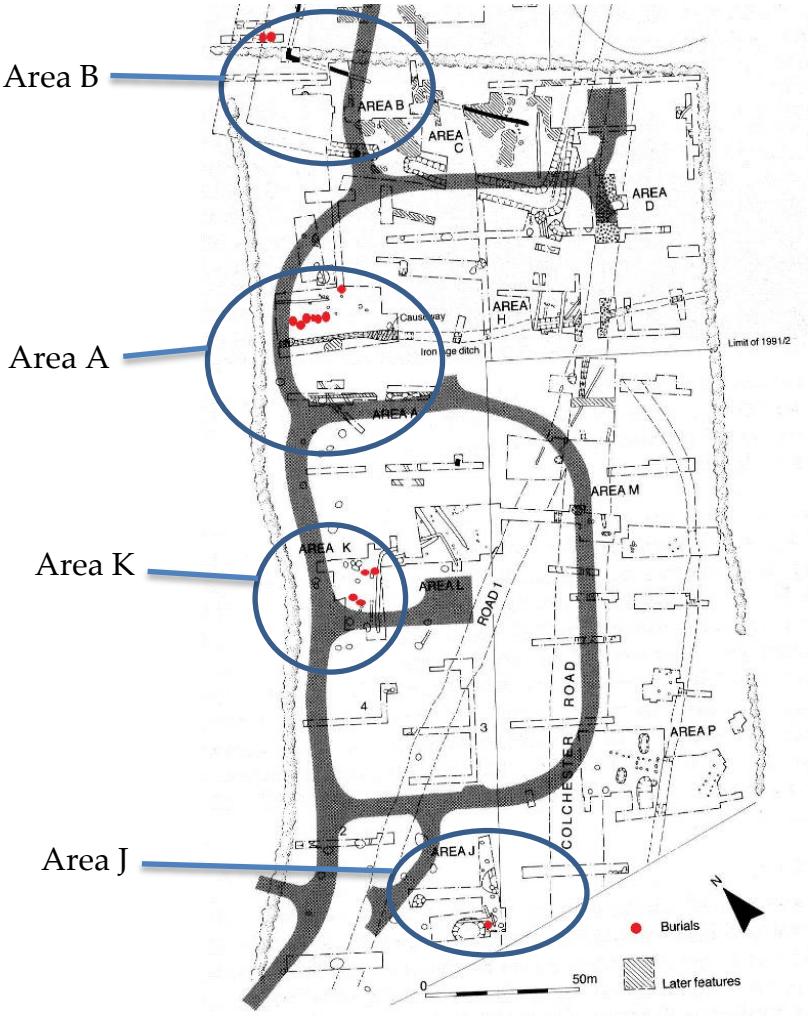


Figure 3.4: Location of burials as seen on the excavation plan for Folly Lane (modified from Niblett 1999: 3).

The cremations of Folly Lane were found in four distinct groups. The largest group, containing burials 1 through 11, was discovered in Area A located 50m south

of the west corner of the "Ceremonial Enclosure". A further eight cremations (burials 18-24) were found in Area K situated 120m south-west of the ceremonial enclosure an isolated burial (17) was found in Area J. The majority of these cremations were dated from the latter half of the first century A.D. to the second century A.D., however, an additional six cremation burials from Area A and one from Area K were dated to the pre-Flavian period (prior to about 69 A.D.) but will not be further discussed as they cannot be placed firmly within the Romano-British period, which spans the period from the later first century A.D. through to the fourth century A.D. Two burials, 12 and 13, were discovered in Area G which dated to the late third century A.D. Nearly all burials were found to be very shallow and thus it is likely that only a fraction were recovered during the excavation while the rest were destroyed due to agricultural practices and erosion in the surrounding area.

3.4 King Harry Lane

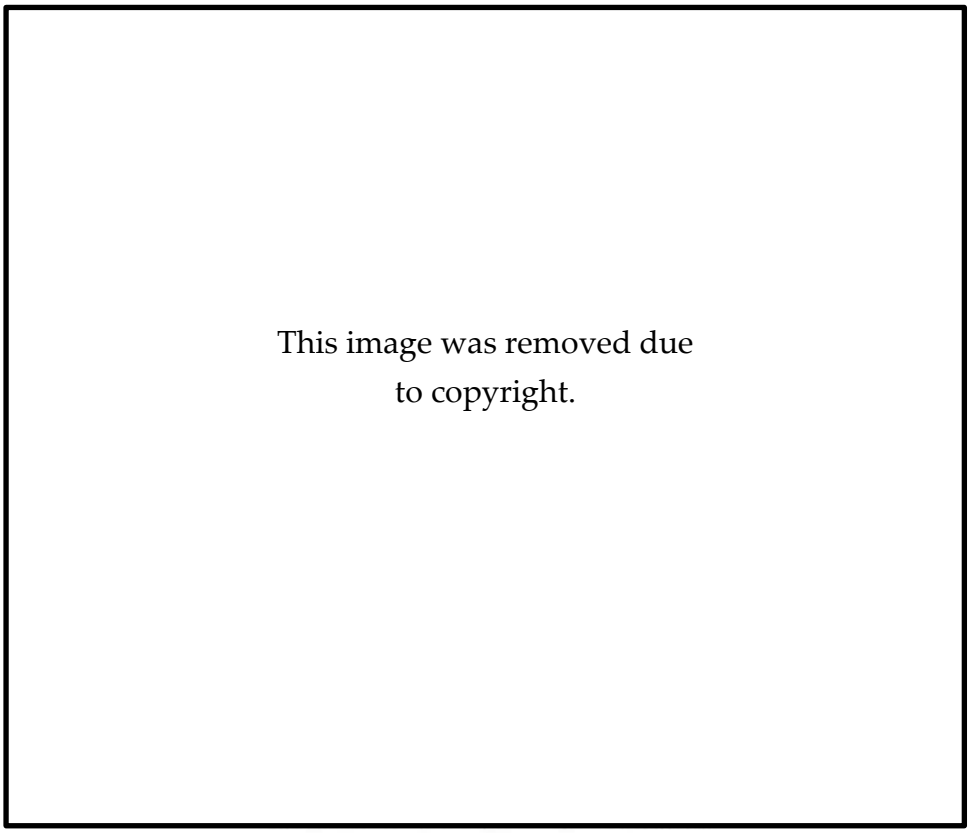


Figure 3.5: Inhumation and cremation burial locations as seen on the King Harry Lane excavation plan (modified from Stead and Rigby 1989: 211).

King Harry Lane, the second site chosen for this study, is not far from Folly Lane and was excavated about thirty years earlier (between 1965 and 1967) with various plots of land along the roads King Harry Lane and Bedmond Lane. These areas were known to be directly outside the walls of the ancient Roman city of Verulamium. Prior to its excavation, there was already evidence of a Roman road which lead to ancient Silchester extending out from the southwest gate of the main settlement; an Iron Age ditch was also discovered by Wheeler in 1933. Further investigations uncovered clear definite lines of the Roman road previously mentioned and other ditches dating back to the Iron Age, a large Iron Age cremation cemetery as well as a Romano-British cremation cemetery, and a Romano-British inhumation cemetery (Stead and Rigby 1989). Archaeologists also discovered an Anglo-Saxon inhumation cemetery which will not be discussed as part of this analysis as it is outside the scope of my given time frame.

The Late Iron Age cremation cemetery continued to be used up through the early Roman period. There are 174 cremation burials dispersed throughout the cemetery which became the focus during the original excavations as the human remains were better preserved and richer in grave goods than in the three Romano-British burial locations east of the main cemetery. Additionally, there are ten inhumation burials found within the cremation cemetery. Another 63 inhumation/cremation burials dating to the Romano-British period are found spread amongst three locations (Areas B and C on the map shown above). By admission of Stead and Rigby (1989) the areas of inhumation were not the focus of the excavation, and as such, a large portion were defined by workers but not fully excavated or only partially excavated, thus only a portion could be analysed.

3.5 St. Stephens' Cemetery

St. Stephens, the third site to be studied as part of this thesis, overlooks the valley of Ver and contains archaeological evidence suggesting that the site was first occupied sometime in the first century A.D. up through the fourth century A.D. (Moore 2009). Despite boasting a large cremation cemetery, much of the burial

grounds have been disturbed by modern building and was thought by early excavators to not provide as much information about the past as some of the other sites in this study. Geographically close to the King Harry Lane site, this cemetery covers the area where at least two important track ways converged. The first is a ridgeway which ran towards the Prae wood enclosure from the direction of Sopwell. It most likely served as an access route to the town in the first century A.D. and in the second century A.D. skirted the western wall acting as an entrance port from the west also known as the Silchester gate (Davey 1935).

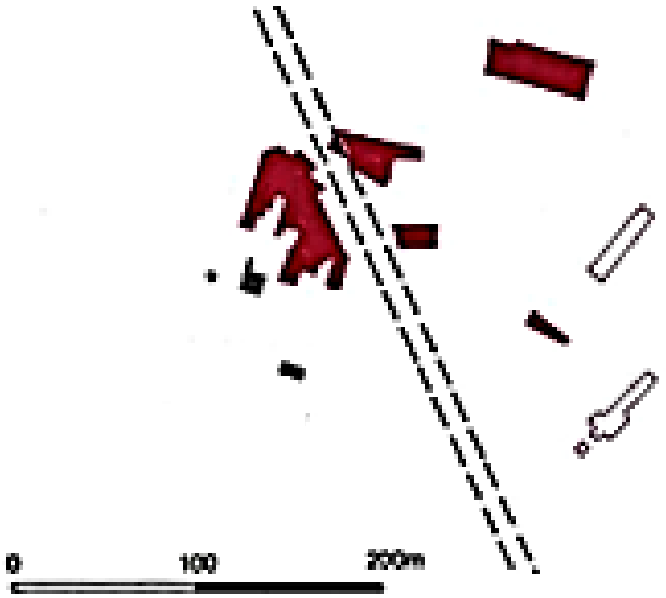


Figure 3.6: Excavation top plan for St. Stephen's cemetery excavation location (modified from Niblett and Thompson 2005: 51).

Early publications from the site dated to the mid-1930s have shown that around a hundred burials had been discovered. Additional work carried out on the site has revealed a total of 386 skeletons; around three times the amount of skeletons originally proposed (Davey 1935; McKinley unpublished). However, only 245 burials will be used as part of the analysis of this thesis as they fall securely within the Romano-British period. Finial assessments of the burial records suggest this site to have a high rate of human-animal co-burials, circa 99 burials total. Unfortunately,

not much information can be gained with regards to the spread of burials or orientation of the graves throughout the site, as I have not been able to gain access to anything other than the map seen in Figure 3.5 above. It is very possible that greater detailed site plans or maps were either never produced or were lost since the excavations.

3.6 Cross Farm: A rural hinterland

The cemetery at Cross Farm, near Harpenden, is the fourth and final site used in this thesis. It differs from the previously mentioned sites as it is an outlier of the ancient city making the burials there potentially removed from the persuasion of popular trends accompanying mortuary rituals. It will be used as a comparison site to the practices seen at the urban sites examined here. Excavated between 1992 and 1994 by the St. Albans Archaeological Unit, the site uncovered at total of 56 cremations dating to the Romano-British period, some of which included animal remains (Roberts 1996). Unfortunately, there seems to be no surviving record or drawings of the location and distribution of burials from the site, thus making any conclusions about sex/gender or human-animal co-burial groupings within the site impossible. However, data collected from the cremation burials may allow the cross-comparison of traditions/rites/rituals in order to see if similarities with the urban counterparts can be found.

It is believed that society's relationship to animals in general has largely grown out of the set of activities and endeavors that are traditionally associated with the countryside, from animal breeding and domestication to the aesthetic appreciation of a gentle, ordered and unthreatening nature (Thomas 1983). Fundamental to this process is the careful historical selection of those animals deemed appropriate to rural space (Dunlap 1999) and associated with this, the exclusion, either through physical or symbolic means, of those deemed inappropriate - i.e. wild animals. The comparison of rural to urban sites will focus on potential differences regarding human-animal relationships. It has been

highlighted by Macnaghten and Urry (1998: 179) that animals (particularly the main domesticates such as cattle, sheep and pig) are key constituents of rural space and thus may evolve different human-animal relationships to those seen within the main city walls of Verulamium.

3.7 Rome and its relationship to a local British city

In the interest of gaining an insight into how the ancient people of St. Albans may have interacted with different domestic and wild species found within their landscape during life, one must first understand the living community in which the humans were participating in themselves. According to Creighton (2001), during the early first century A.D. Southern Britain was likely to be ruled by a series of dynasties, some of whom were inevitably in allegiance with Rome. While some Roman scholars envision the early period of occupation as oppressive, other scholars believe the interactions between the local kings or ruling elite families and the Romans may have been one of support and reinforcement (Creighton 2001). As such, there would have been varying degrees of cooperation between Rome and the people whose land they occupied which would have shaped the local communities and their attitudes towards new traditions. A 'Roman friendly' relationship would alter the way in which individuals and/or their communities would perceive and interact with incoming Roman legions along with the traditions and rituals they brought with them, including those surrounding death and burial. I must point out that this thesis is not aiming to determine whether individuals buried within St. Albans considered themselves to be Roman or not; the aim is rather to attempt to identify the various human-animal relationships. One factor which may have been key in the negotiation of such a relationship may have been through differences in social identity.

Within the last decade the field of Roman archaeology has seen an increase in the discussion of identity, ethnicity, and creolisation of populations which came with Roman control (Hill 2001). Some of the common debates are regarding various dualities: Roman or native, military or civilian. While such identifications, or

perhaps imposed dualities, attempt to address how individuals in the past may have related to themselves and others, it remains obvious that the theories coming out of these case studies are dependent on how modern scholars relate and identify the past. Sociologically, the recognition or assignment of identity can be described as who people think they are or who they want to be. The assignment of an identity is a fundamental part of nature; however, a person's identity is not fixed at birth and often changes throughout their life (Hill 2001). Problematically, previous research on this discussion has largely assumed and/or reacted as if ancient identities were simple, static and mainly corresponded to a person's race and language. The question must be asked if it is even possible to recognise identity on an individual level and, if so, can this be achieved through the analysis of material culture. In this case, the material culture in question is, of course, the presence of faunal skeletal remains found within the human burials of the sites being analysed. In essence, are the human and animal individuals linked together by a greater singular identity separate from other humans who were not buried with animals?

3.8 Importance of understanding sites from reports

The sites selected for this study were based on the potential they had for gaining understanding of the burial rites during the Romano-British period. Each site boasts burial grounds for individuals who have received inhumation or cremation burials alongside being selected for burial with specific animals - a practice which is far from being understood by modern archaeology. Additionally, it was felt that, overall, the sites in question generally had faunal material which was overlooked in importance.

4 Chapter Four: Approaching the skeletal data

This chapter provides an overview of the combined human osteological and zooarchaeological methods chosen to analyse the material used in this thesis and summarises the problems and limitations faced by this study. Focus in this chapter is given to purer methodological practices associated with the general identification and classification of human and animal skeletal remains found within the burial arena, whereas Chapter 2 addressed the intentions behind this project.

In approaching this material there were several variables to consider. First, there was the acknowledgement that the skeletal assemblages originated from both cremation and inhumation burials rites. Second, there was the knowledge that many of the burials were thought to be comprised of any mixture of human and non-human mammal, avian and aquatic skeletal material. As such, alternative forms of analysis had to be applied where appropriate for osteological material depending on the method of burial treatment.

4.1 Methods for identification of species

All human material was separated from animal material using morphological differences outlined in Schmid (1972). Cremated skeletal material was passed through 10mm, 5mm, and 2mm sieves to allow for easier identification and analyses to take place. Bone fragments were identified to species, when possible, by examining the overall shape of the elements looking for key structural and morphological features. In particular relation to cremated bone, difference in the thickness of the trabeculae running along the inside of the long bone shafts was also used. Most non-human mammal species are known to have greater overall bone density despite having less porous cortical bones than humans (Hillier and Bell 2007: 249-263). Birds, on the other hand, tend to have lighter, more hollow bones than either humans or the non-human mammalian species identified in this thesis.

As an aid for identification, non-human mammal skeletal remains were identified by comparing unknown material against the reference collection housed at the University of Southampton, as well as against the criteria described in Schmid (1972) for non-human adults while the criterion described in Prummel (1987) was used for neo-natal and juvenile non-human mammal remains. The atlas (Cervical vertebra 1) and axis (Cervical vertebra 2), were identified to species when possible. Otherwise vertebrae were classified into size groups of small, medium and large. These size classifications were also used for the identification and recording of ribs.

Birds were identified using the criteria comparatively against the bird reference collection housed at the University of Southampton alongside the descriptions found in Cohen and Serjeantson (1996). In many cases confirmation of species was verified by Dale Serjeantson.

The distinction of the particular species of animal is important to this thesis as each animal may hold a different special significance within the community. Further to this, the distinction between humans and animals is relevant to this study as the cremation material was comingled in the burial urn and, in a few cases, was scattered on the floor of the burial pit. The results will allow me to recognise what treatment was given to the human individuals and see if this was also found in the animals which accompanied them.

4.2 Methods for the identification of age-at-death

Using a multivariate approach to estimate human age-at-death I have focused on the most commonly used methods. These are to observe the morphological changes seen in the structure of the pubic symphysis (Todd 1921a, 1921b; Brooks and Suchey 1990) and the auricular surface of the pelvis (Lovejoy et al 1985, Meindl and Lovejoy 1989: 165). Evaluation of cranial closures (Acsádi and Nemeskéri 1970; Masset 1989) and fusion of long bones (Krogman and Iscan 1986; McKern and Stewart 1957; Redfield 1970; Suchey *et al.* 1984; Ubelaker 1989a, 1989b) was also carried out. Additionally, dental eruption (Moorees et al. 1963a, 1963b)

and/or attrition (Brothwell 1981) has been observed. All charts and diagrams outlining these methods can be found in Appendices A1 through A6.

Figure 4.1: Cremated versus non-cremated adult and juvenile teeth (photo taken by author).

4.2.1 Non-human methods for estimating age-at-death

Non-human mammals can also be placed into age categories based on the state of fusion at the epiphyses. The following categories for long bones have been used: foetal (unborn; very small, all epiphyses unfused), infantile (post-natal, not yet weaned, almost all epiphyses unfused except those that fuse at birth such as proximal metapodials), juvenile (older than infantile but still young, early fusing epiphyses such as the coracoid of the scapula, distal humerus and proximal radius still unfused), sub adult (early fusing epiphyses are fused but late fusing ones such as the proximal humerus, femur and the distal radius are still open) and adult (all epiphyses fused). Appendix A7 outlines the specific age breakdowns used by Morris (2011), which were also used in this research.

Similarly, the age stages of birds may be divided into four different categories; the very young or hatchlings (whose bones are at most half ossified), immature or nestlings (whose bones are more than half ossified but are still very porous and unfused), sub-adults or fledglings (whose bones are fully grown and

fused but may still be slightly porous) and adults (whose bones are fully fused) (Cohen and Serjeantson 1996).

The identification of age-at-death for both humans and animals is important to this thesis as it helps to define any societal trends that may have remained unrecognised previously. This may include but is not limited to certain age-related practices of burial (such as inhumation or cremation), particular ages being deemed by society as relating to certain non-human animal species or other human individuals being buried alongside the deceased.

4.2.2 Restrictions of current ageing techniques

Although there have been many advancements in our understanding of how the cremation process works in addition to how the body naturally breaks down there are still limits to what the data can tell us. It has been gradually recognised that ageing methods for both humans and non-human animals can have wide variation based on population differences. Additionally, individuals with poor nutritional health or various diseases can cause delays in the formation and eruption of the teeth alongside delays in the fusion of bones (Grant 1978, 1982; Mays 2002). This may be further complicated by environmental stressors such as anxiety, depression, etc. (Grant 1978). In regards to dental wear, the type of food and the degree of grit in the diet is known to have had an effect on dental attrition causing individuals to look potentially older than they really are (Speth 1983). Furthermore, many of the techniques mentioned above rely on the comparisons of the degree of degradation of particular areas which is subjective to the judgments on the part of the observer.

4.3 Methods for the identification of biological sex

The identification of biological sex of a burial population, for either human or faunal material offer interesting insights into the psyche of the cultural group participating in the burial of the deceased individuals. It is well known and

recognised by scholars that an individual's sex is biologically determined whereas gender is socially constructed (meaning the two are not always one in the same). As such the unique facets of which create the assignment of a sex can play a role in the rites afforded to the deceased. Therefore, it is important to not underestimate the recording of both. While cultural constructions of sex are ultimately observed through the inclusion of grave goods, biological sex relies upon the preservation of distinguishable morphological and/or metric characteristics.

4.3.1 Identification of the biological sex for human remains

Within any human population adult male and female skeletons differ in both general shape and size. Estimations of biological sex, therefore, are based upon visually observed differences in skeletal morphology particularly within the *os coxae* and the skull. Variation in the following structures have been recorded from the subpubic region of the *os coxae* including the ventral arc, subpubic concavity and the ischiopubic ramus ridge (Buikstra and Mielke 1985; Phenice 1969), along with the greater sciatic notch and preauricular sulcus (Milner 1992). While Phenice (1969) originally rated the ischiopubic ramus ridge on a scale of one to three, numbers allowing for more ambiguous expressions of male and female traits have been added to create a scale ranging from one (definitely female) to five (definitely male). Further details of these methods can be seen in Appendix A5.

The areas of the skull listed below have proven to be sexually dimorphic within population groups and as such were used to record differences between male and female cranial features. These areas include the robusticity of the nuchal crest, size of the mastoid process, sharpness of the supraorbital margin, prominence of the glabella and projection of the mental eminence (Acsádi and Nemeskéri 1970) which can also be found in Appendix A6. In all cases a five-point scale was used, with more gracile feminine features at the lower end of the scale.

Scores from both the *os coxae* and the skull have been combined to offer individual age-at-death and a biological sex profile for each skeleton. While infants and young children do not display the same extent of sexual dimorphism as adults

and older adolescents, a best possible age-at-death determination was offered using long bone length, fusion profile and dental eruption when possible.

4.3.2 Techniques for the identification of biological sex of non-human mammals and birds

Due to a lack of sexual dimorphism in many non-human mammalian species metric analysis of long bones is often used (see O'Connor 2002). However, this method was not applicable to the skeletal material from St. Albans due to its highly fragmented nature, whether it was cremated or not. More intrusive sexing methods include DNA isotope testing, but this too was beyond the scope of the study as permission of destructive bone sampling was not granted. However, Schmidt and Symes (2008) highlight studies where it has been proven that in cases of extreme burning, organic matter (such as DNA) is destroyed and as such it is not likely that any more useful information would have been gathered from the process. Therefore, the only method applicable to this material was the possibility of finding distinctively large, open canines which are present in male pigs or the presence of spurs on the tibio-tarsi of male chickens but this is also problematic. Research conducted by Doherty (2013) shows evidence that the presence of the spur on male chickens is variable in its formation and tends to occur when the individual animal is much older than previously though. A distinctive excess of medullary bone in the femur, linked to the production of eggs in female chickens was another possibility and thus avian bones were also examined for its presence (Cohen and Serjeantson 1996).

4.4 Quantification of human and faunal skeletal material

Individual faunal skeletal elements were recorded using a method adapted by Reitz and Wing (1999) which takes into consideration the presence or absence of various parts of individual bones. Minimum number of individuals (MNI) (O'Connor 2000: 60) and Number of Identified Specimens (NISP) (O'Connor 2000: 55) was calculated for both human and animal remains in order to ascertain the

relative quantity of all species found within individual graves. MNI is defined as the minimum number of individual animals necessary to account for some analytically specified set of identified faunal specimens; it is a derived unit because it may or may not take into account inter-species variation such as age, sex, or size (Lyman 1994: 100-01). NISP is defined as the number of identified specimens per taxon; an observational unit. Taxon can be species, subspecies, genus, family or a higher taxonomic category (Lyman 1994: 100-01). These methods are particularly necessary and more challenging when applied to cremated material, as there is a much greater degree of fragmentation than seen with inhumation burials. However, both techniques allow the analyser to consider the ratios of humans to non-humans within particular funerary settings.

4.4.1 Use of the traditional zoning method, problems and subsequent modifications

The traditional method of the quantification of faunal remains is currently the zoning method in which individual skeletal elements are divided anywhere between four and nine zones. This is meant to offer the observer and idea about the completeness of each bone and allow for the differentiation between repetitive bones which belong to particular individuals of the same species. However, when applying this method to cremated faunal remains it was found to be cumbersome, questionable in the relevance of its data and not really achieve the level of analysis I was after and therefore was abandoned.

Instead, I created my own quantification/zoning method of assigning: forelimb (scapula, clavicle, humerus, ulna, radius), hind limb (pelvis, femur, tibia, fibula), Cranial (skull and mandible), Torso (vertebrate, sternum and ribs), and hands/feet (carpals, metacarpals, tarsals, metatarsals, phalanges) was used instead. Additionally, long bones were divided into more general categories of "proximal articular end", "shaft", "distal articular end". Other bones were recorded simply as "present" or "absent". Teeth where distinctions were made between "incisor", "canine", "premolar" and "molar" when possible. These too, were further recorded

as "crown only", "root only", or "whole". When possible, distinctions between left and right were made.

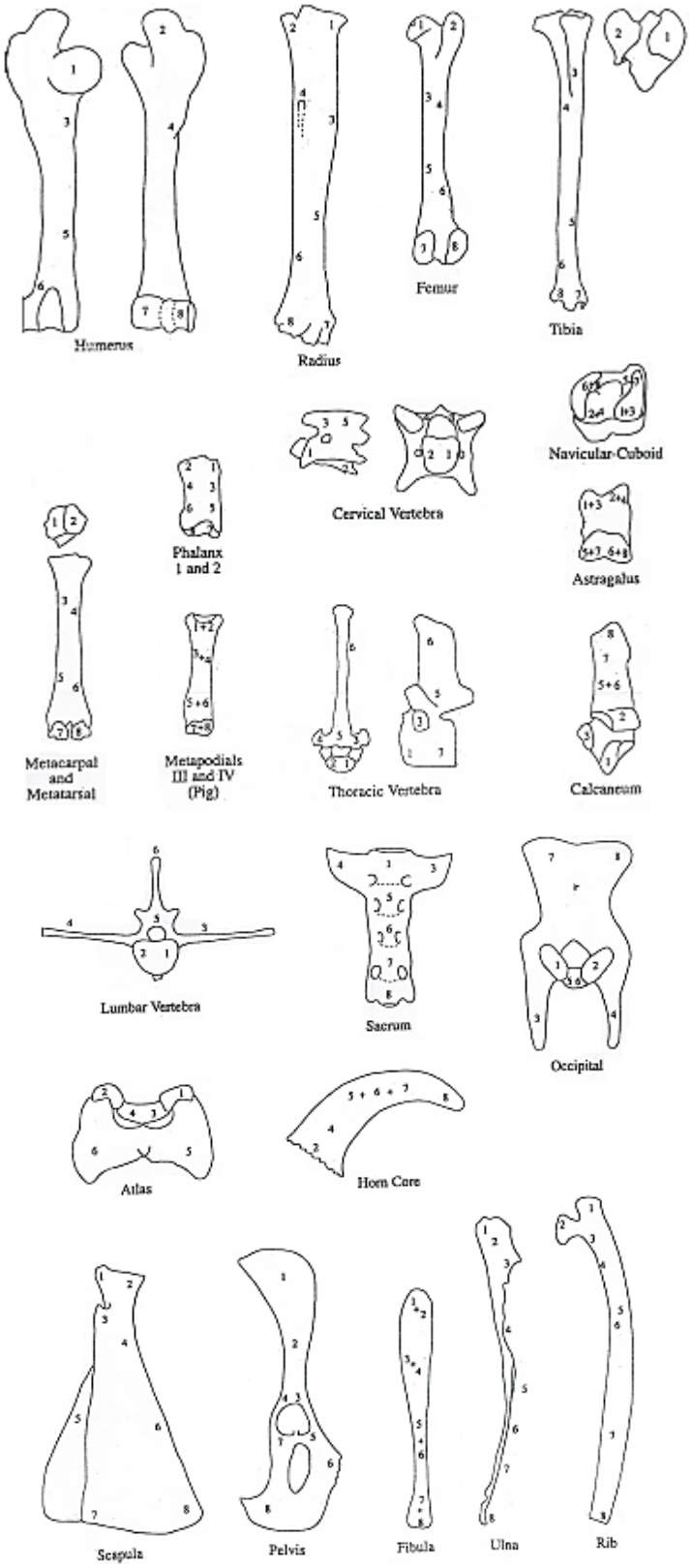


Figure 4.2: Typical zoning patterns used to quantify faunal skeletal material (Serjeantson 1996: 196-197).

4.5 Identification of faunal preparation

In following this idea that faunal remains are present in burials as joints of meat whose purpose was for consumption, one must first be able to offer supporting evidence this in fact was the case. As such, paths of analysis were used to see whether the skeletal material could be categorised as a joint (discussed later in Chapter 5.3) or even support the notion that flesh was eaten off the faunal skeletal fragments prior to being placed either on the pyre or in the inhumation pit.

All human and non-human skeletal material was examined for evidence of human and/or animal modifications such as butchery or bore holes (such as creating latch holes for beads which can then be applied to funerary clothing or drapery). Any evidence of cooking and/or burning (not associated with cremation) to bone has also been recorded. Furthermore, the bones have been examined for evidence of exposure to weather and animal gnawing which, if found, suggests that the corpse had contact with the elements prior to burial. The recording of these markers are important as these specific acts are distinct and separate from the final stage of burial and may help identify if mortuary feasting took place at the burial grounds.

4.5.1 Evidence of butchery

Lyman (1987: 252) defines butchery as the human reduction and modification of an animal carcass into consumable parts, in which the word consumable is broadly construed to mean all forms of use of carcass products, including but not restricted to the consumption of food. Lee (2007) remind us that the goal of butchering is in fact the ultimate dismemberment of a particular carcass, not specifically for sole the removal of meat removal. It is well known that the anatomy of any animal, large, medium or small, can be partitioned into sets of bones, hides, muscles and fat that may be abandoned, transported or allocated to different uses (Binford 1978). So while butchery has previously been used by zooarchaeologists as an identifier of faunal consumption, the reality is it is simply a

process which allows the holder of the products great fluidity in their use/transport/sale/etc. which may or may not be related to the practice of eating.

Experimental butchery marks and stone tool cuts were heavily discussed in the early 1980s (see Bunn 1981, 1982; Olsen 1988; Potts 1982; Bonnichsen 1979; Morlan 1980; and Shipman *et al.* 1981). Most described cut marks tending to be represented by U- or V-shaped in cross section whereas carnivore or rodent gnawing tends to leave multiple fine elongated parallel striae. Bunn and Kroll (1986: 436) argue that the location of the cut marks are indicative of use - i.e. skinning, disarticulation, defleshing. However, Lyman (1987: 263-265) and Binford (1981) argue that variation of the marks and the orientation of which they can be found on similar elements may be down to the actual state of the carcass at time of processing.

At its simplest, butchery evidence can be divided into two different types of marks: cut marks, resulting from the cutting of overlaying tissues by a knife or knife-like implement, and chop marks, resulting from chopping of muscle and bone by something like an axe or cleaver (O'Connor 2012: 45). Cut marks are identified by their characteristically short, parallel fine striations with a V-shaped cross section (Fisher 1995: 12-25). Within the cut, there are often fine striations parallel with the cut reflecting a sawing motion as seen in Figure 4.3 below.

All human and faunal material was carefully examined for the presence of such marks. Analysis was, generally carried out by the naked eye. Suspect fragments were set aside for further analysis and generally inspected with the aid of a magnifying glass. On the whole a skeleton would receive a mark of zero (0) for no marks present or one (1) for signs of butchery present. If present skeletal element, side (if possible), species, and mark type was recorded in further detail.

Figure 4.3: Striations associated with sawing through bone (modern cattle humerus) (photo taken by author).

4.5.2 Evidence of human and faunal treatment prior to burial

Marks inflicted on bone surfaces by feeding carnivores and hominids can be informative about many details of the accumulation, modification and dispersal of larger mammal fossils. However, there is literature to suggest that a certain percentage of marks are actually mimicking marks produced in other manners than the one identified.

Figure 4.4: Modern cattle humerus with signs of gnawing (circled in blue) [photo taken by author 06/2015].

Conspicuous marks would include furrows, punctures associated with the gross gnawing of articular ends by carnivores, deeply incised cut marks and chop marks, and percussion battering (following Binford's 1981 definitions). Additional examples have been illustrated by Brain (1981), Haynes (1983) and Blumenschine and Selvaggio (1991). Inconspicuous marks include isolated, small tooth pits and scores, fainter cut marks, and the vast majority of percussion marks. Diagnostic features of percussion marks include transversely orientated patches of micro striations as a result of a crushing mechanism.

Gnawing is characterised by the presence of multiple parallel striations that match the width of the incisors, and by the removal of the articular ends of diaphysis (Brain 1981; Maguire *et al.* 1980; Andrews 1990; Laudet and Fosse 2001). Carnivorous gnawing often results in canine puncture wounds to the surface of the bone as seen below in Figure 4.5.

Figure 4.5: Post-mortem carnivore puncture wounds [photo taken by author].

All human and faunal material was carefully examined for the presence of such marks. Analysis was, generally carried out by the naked eye. Suspect fragments were set aside for further analysis and generally inspected with the aid of a magnifying glass. On the whole a skeleton would receive a mark of zero (0) for no marks present or one (1) for signs of gnawing present. If a skeleton showed signs of gnawing as present, additional comments would be made to denote the skeletal

element, side (if possible), species, and whether the gnawing was made by humans, rodents or canine species.

4.5.3 Fracturing of bones

In order for a bone to break a force of some sort must be applied. This can be done by a number of different factors - strain, stress etc. Strain is the change in the linear dimensions of a body resulting from the application of force whereas stress is the ratio of force applied to the area over which the force is acting and is synonymously used with strength (Lyman 1994: 315). Elasticity is the property that allows a body to return to its original shape and size after a force has been applied to it is removed. Static loading involves the application of constant compressive pressure, generally with an even distribution of force (Johnson 1985: 192). Dynamic loading involves focused sudden impact (Johnson 1985: 170, 192). When either kind of loading exceeds a bone's tensile strength the bone fractures. The more rapid the loading rate, the less maximum strain a bone can withstand and the less energy it can absorb before it fractures (Davis 1985: 63). Fractures begin on the outer layer of the bone and progress inwards. Dynamic loading imparts bending forces to a long bone, and "shearing it along a helical course that is inclined at a 45-degree angle to the longitudinal axis of the long bone" (Johnson 1985: 171) to produce a spiral or helical fracture. Fracturing also occur when bones are super-heated during cremation.

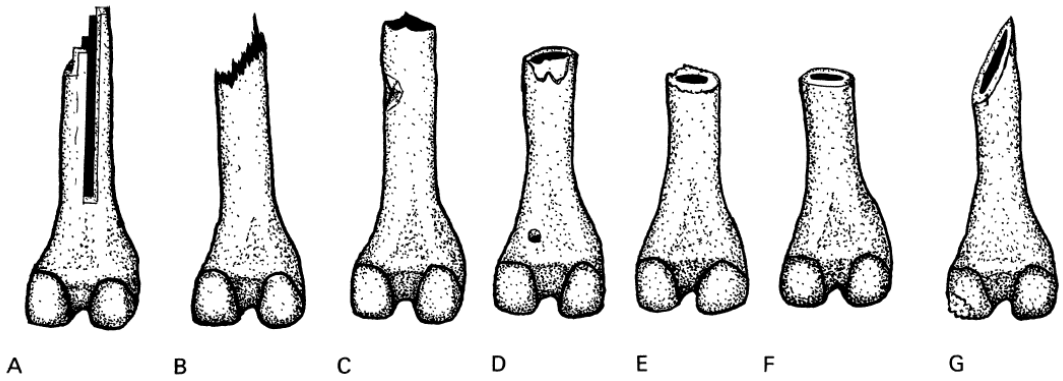


Figure 4.6: Fracture patterns for non-heat related breakage: A, a step or columnar fracture of the shaft; B, a saw tooth fracture of the shaft; C, a depressed fracture in the side of the shaft and a V-shaped break through the shaft; D, a puncture (distal end of shaft) and flaking (proximal end); E, an irregular perpendicular break through the shaft; F, a smooth perpendicular break through the shaft; G, an irregular articular break (on condyle) and a spiral fracture of the shaft. (Shipman et al. 1981: 260).

Cremation is a process of dehydrating and oxidation of the organic components of the body, including about the 30% of organic component of the skeleton. The process changes the macroscopic appearance of bone; altering it during the dehydration process in the fire. Dehydration causes shrinkage, fissuring, and sometimes twisting of the bones to occur. Fissuring generally follows a distinctive pattern which is dictated by the bone's morphology (shape, size, density, etc.). For example, characteristic U-shaped fissures typically develop along the anterior femur and humeral shafts, while concentric fissuring tends to be restricted to proximal heads. Small bones, such as carpals/tarsals and phalanges, often survive whole. McKinley (2000) states that bones which have already been dehydrated prior to cremation burnings often lack the ability to develop the fissures which may be due to the lack of heated organic matter and water forcibly escaping during the heating process as it is already gone. That being said, the ability to distinguish between a trauma-induced fracture and a heat-induced fracture can be difficult, particularly when the presence of trauma-induced fractures aid in the production of more heat-induced fractures when cremated as the integrity of the bone walls are already weakened (see Hermann and Bennett 1999 for further details and outcome of their experiment).

Attributes of (non-cremated) fractures
Fracture orientation: relative to the long axis of the specimen
X: mixed
Y: parallel
Z: oblique
Fracture surface location: based on anatomical positioning of the area of maximum exposure of fracture surface (specimen lying flat on surface with marrow cavity exposed)
A: anterior
B: posterior
C: medial
D: lateral
Fracturing morphology: the total form of the fracture by independent coding of lateral, proximal and distal edges
A: parallel and smooth
B: oblique and smooth
C: oblique and stepped
H: curved in one or more planes
I: irregular
J: V- shaped
K: horizontal to long axis

Figure 4.7: Attributes based on different fracturing patterns associated with cremation (letter designations after Davis 1985: 82).

Following the variation of breaks depicted in Figure 4.6, decidedly non-cremation related fractures were assigned to one of the seven groups. The degree of fracturing, warping and fissuring in relation to the cremation process (see Figure 4.8 below) was detailed in order to determine whether burning was carried out on green or dry bone. Green bone is often referred to as skeletal material which is acted upon taphonomically from a recently-deceased individuals and still has skin, flesh and cartilage attached to the bone. Dry bone on the other hand, originates from a long-deceased individual, in which all remnants of outer tissues and cartilage have been removed and the bone has been exposed to the elements for some time. Dry bones tend to have lost some of their organic components if they have been exposed to the sun for a long period of time. Each fracture was then described in detail using the various points and designations outlined in Figure 4.7.

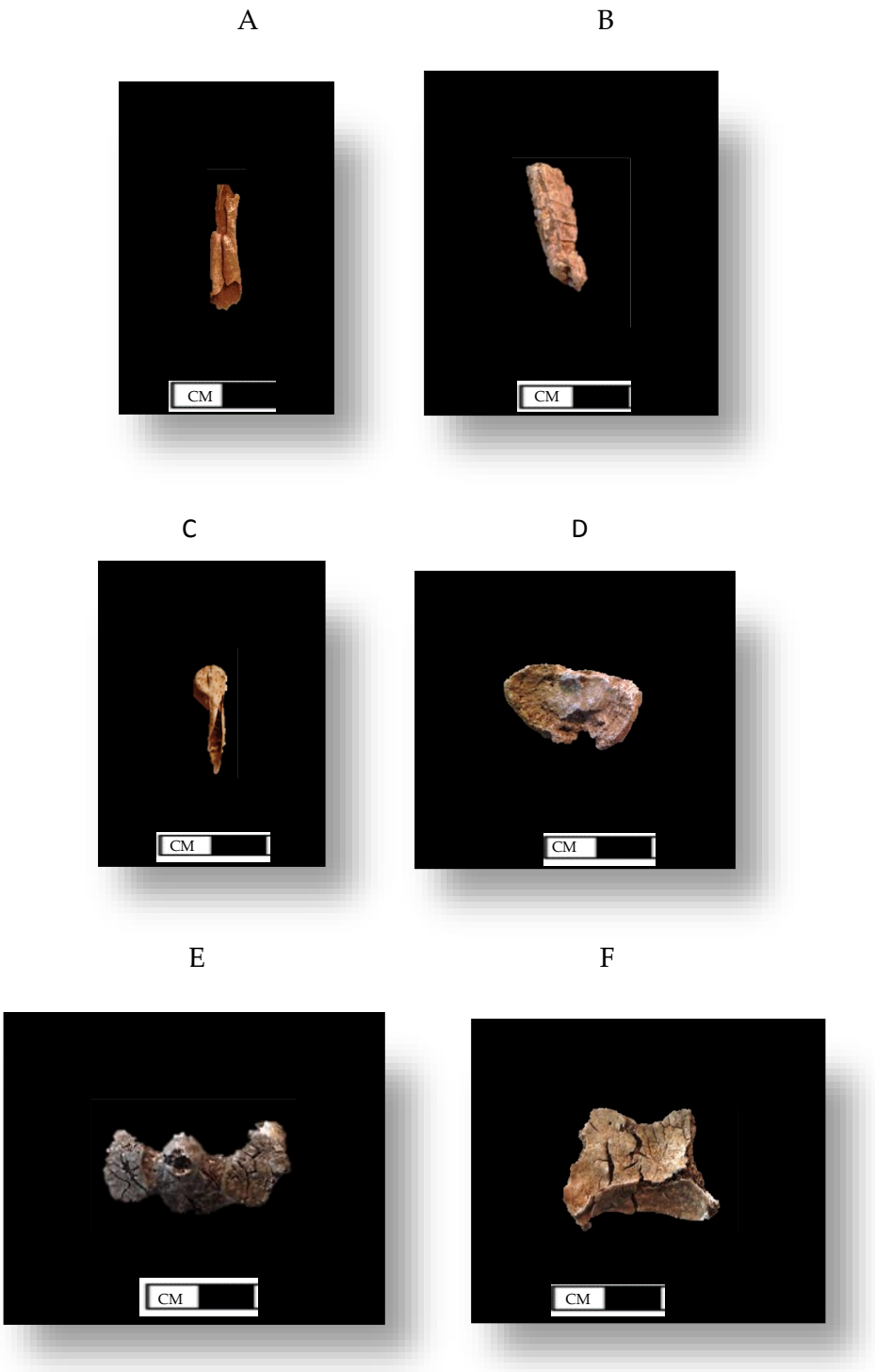


Figure 4.8: Variation in cremation fracturing - A) Longitudinal splitting, B) Transverse fracturing (faunal), C) Smooth surfaced fracturing resulting from prior mechanical breakage (faunal), D) Concentric cracking, E) Rectilinear cracking, F) Dendritic fissures (Photos taken by author 10/2014).

4.6 Analysis of cremated material

During the analysis process, each bag of cremains (a shortened term for cremated remains) was passed through 10mm, 5mm, and 2mm sieves in order to

make the identification process easier prior to recording the amount of surviving material using a classification process based on body zones (i.e. cranial, dental, axial, appendicular, extremities and unknown). When possible, exact skeletal element and side were recorded. Furthermore, the overall bone weight in grams along with colour variation, and maximum bone length has been taken in order to better discern practices surrounding the cremation process such as temperature and length of burning associated with the ritual. The recording of cremations followed the parameters as described in *Guidelines to the Standards for Recording Human Remains* (Brickley and McKinley 2004) and the recording sheets created by Arizona State Museum were used for the human remains. Additional sheets were produced to allow for the accurate recording of faunal remains to take place as there are no alternatives for the recording of faunal cremations. From there, databases were created using Excel and SPSS. These sheets can be found in Appendix A11.

4.6.1 Colour

Bone colour is known to change based on the temperature of the fire and longevity of the burning found in the Munsel-like chart seen in Appendix A8 (Schmidt and Symes 2008). All bones were examined both on fracture patterns and colour to determine whether the skeletal material had been burned as part of cooking fires or had, in fact, undergone the process of cremation. Common colourings of light greys and whites have been found to be associated with a sustained burning period with temperatures ranging from 900°C-1100+°C (deemed high temperature burn). Changes associated with burning at slightly lower temperatures, somewhere between 700°C and 1000°C (deemed medium temperature burn), have been found to leave more variation across the skeletal body, with blue patches amongst the greyish white colour found in higher temperature burns. Colours ranging from browns to dark blacks and blues can be seen with low or less sustained burns, ranging between 100°C and 700°C (deemed low temperature burn). This method allows us to identify at what temperature the individual(s) were cremated. It also allows for the recognition of whether the non-

human animals found in cremation burials were included during the burning stage or whether they went through some other process before ending up comingled with the human cremains. All bone fragments were graded against the colour scale and then assigned a series of numbers which correlated to what is recorded in Excel/SPSS databases (see Appendix A11).

Figure 4.9: Colour as seen within a single cremation [Photo taken by author].

Figure 4.10: Charred burning on a modern pig astragalus [photo taken by author].

4.6.2 Weight

The weight of each cremation grave was determined after passing all material through 10mm, 5mm and 2mm sieves to remove any non-bone material such as rocks and dirt. In cases where a single grave displayed evidence of multiple human burial, the human material was weighed as if it would be for a single occupant grave. However, if animal material was found within the human cremation it was separated out and weighed separately in order to estimate the total amount of the inclusion. Additional non-bone material, such as iron nails, were removed and weighed separately in order to get a truer estimate of the so-called ash weight. The total weight of individual graves was then compared against Trotter and Hixon's (1974) study regarding "ash" weight of reconstructed cremations. Coupled with the amount of recovered material from various zones, a decision about whether or not these individual burials could be considered special deposits was made.

4.6.3 Problems associated with the data

When attempting to sex or age cremated material, the possibility of getting the specific elements required is so slim it is near impossible. Thus, some researchers have turned to level of robusticity and weight ranges for answers, instead of using the common methodology which requires the combination of scores to suggest an outcome of biological sex. While this practice gives the greater sense of identification there is no way to know for sure if the observer is right. Furthermore, it particularly becomes problematic when the estimation of age or sex depends on how experienced the researcher is in terms of picking up the slightest clues on disfigured material, let alone the fairly normal variations seen between males and females who have undergone the inhumation process.

Another problem stems from the uniqueness of the cremation process; traditionally, modern studies which have examined burning temperatures have based their rates of burning and levels of destruction to the bone with either cattle

or pigs. However, there has been no study on the effects of prolonged burning at high temperatures for the skeletal remains of chicken or other bird species along with fish. Therefore, the material which has been recovered may be just a portion of what was present at cremation pyres or what may have been lost during secondary deposition of remains as well as at the time of excavation. It is also possible that the smaller, lighter and more fragile bones which make up the bird skeleton were destroyed due to taphonomic factors such as high soil acidity, flora and/or fauna intrusion, etcetera.

4.7 Recording sheets and software usage

Microsoft Excel and SPSS Software, or Statistical Package for the Social Scientists, a common data management and statistical analysis tool which has a very versatile data processing capability was ideal for the storing and managing of the vast amount of data that this thesis used. The frequency function was used to test the amount of times a specific variable occurred under a certain condition; i.e. the age range of humans who were cremated. Whereas the cross-tabulation function was used to identify if more than one variable occurred under the same condition; i.e. the age range for the human and animals who were cremated versus inhumed.

Other commands used to obtain information about the relationship of the population data were functions of descriptives and means. Both of these procedures are used for obtaining information like the means of variables and standard deviations.

4.8 Methods for literary analysis

Chapters 8 and 9 are centred around textual analysis of grave objects which are animalistic in nature - either depicting animal imagery, taking the shape of a given animal or a derived from animal bones themselves. Additionally, Chapter 10 compares data gathered from other research which explores the context of animal species in the agricultural/economic context as well as other burial patterns found

amongst archaeological sites further afield than the ones discussed in this study. While this material was not actually examined by the author, it was thought the gathering and synthesising of other occurrences of animals present in both the living community and funerary practices would add more depth to the knowledge that the different sets of animals are found and interacted with at many different levels within the Roman and Romano-British community.

Online databases were accessed as well as grey literature, archived material reports and published material. The sites chosen by the author and used for comparison were often found to include numerous examples of domestic and wild species both in the settlement and burial areas. Moreover, the author wished to pool as much information already gathered which highlights human animal co-burials. Difficulties with this desire arose out of the inability to cross-tabulate data sets with other authors whom had quantified data using a single method of MNI or NISP but not both or had used neither one of those methods previous mentioned. A synthesis of these sites can be found in Appendix A10.

4.9 Conclusion

For each human and faunal individual, the burial process as well as the mode of burial was examined. This included the examination of the processes such as the use of an urn which may tell whether it was a primary or secondary practice. For inhumations this included the examination of burial descriptions and images (if one existed) in order to determine whether a wooden coffin or burial shroud was used- if any at all. Trace evidence was also looked for in case there were other burial rituals which occurred prior to interment - this may be things such as excarnation/exposure. Furthermore, additions such as accompaniment of other animals or people were considered in order to gain some sort of understanding in division (if any) for the burial rituals identified within the aforementioned sites (see Chapter 3). The methods described here have been applied to the data in Chapter 5

and establishes the approach in which I aim to seek answers to questions regarding the human-animal relationship in Romano-British Verulamium.

5 Chapter Five: Examination of burial practices

In this study human and faunal skeletal material are analysed to investigate human-animal relationships in life and death during the Romano-British period within the vicinity of the modern day city of St. Albans. In Chapter 4, a methodology was proposed as a means of examining the differences and/or similarities in the physical treatment and representation of skeletal remains in the burial arena. This chapter aims to present the skeletal data gathered throughout the course of this research project which will then be used to further discuss whether the hypotheses frequently used by archaeologists are in accordance to what the skeletal data conveys or not.

While this study is particularly interested in the faunal member of co–occupied graves, it is equally interested in the demographic profile of the human individuals with whom they are buried. This chapter offers quantitative inventories such as age-at-death, ratios of biological sex and general health of both the human and faunal grave occupants. Further to that I aim to expand on the physical presence of human and faunal individuals of whom were included in these burial traditions by commenting on the pre- and post- burial care given to the deceased individuals within these communities hoping that correlations, if any, between the two occupants will be identified.

5.1 Distribution of human remains across the sites

Across the four sites used in this study, a wide variety of human ages-at-death are seen amongst the 473 human individuals, as expected for a typical small city and its outlaying community, which remained occupied for over a period of three centuries (see Table 5.1). All estimations regarding the quantity of human individuals are based on the minimum number of individuals (MNI) estimated within each grave (which acts as a single event). As expected, there is a higher proportion of adults to juveniles at each of the sites, while a smaller number of the population was unable to be classified into one of the two aforementioned

categories. Although the Roman period was known to have a high infant mortality rate, it was not unexpected, the literature discussions seen later in Chapters 6 and 7 seems congruent with the idea that neonates and young children were allowed to be buried inside the city walls where older individuals, by law, had to be buried outside (Plutarch, *Moralia*; Soranus, *Gynaecology*).

Age Groups	***Folly Lane***	***King Harry Lane***	***St. Stephen's Cemetery***	***Cross Farm***
Foetal - Neonate	2	9	5	5
Birth – 4yrs	-	2	24	2
5 – 12yrs	1	3	8	-
General child	1	5	6	1
13 – 19yrs	2	2	9	1
20 – 35yrs	4	14	10	9
35 – 50yrs	4	-	36	11
50+ yrs.	-	2	68	6
General adult	8	107	45	18
Unidentified age	2	41	-	-
Total	***24***	***185***	***211***	***53***

Table 5.1: Human age demographics for all sites (MNI).

An additional, breakdown of the biological sex profile for each site can be found in Table 5.2 below. From the identifiable material, males and females tend to be fairly equally present at all of the sites, however, there is a substantial proportion which was impossible to be sexed. In all cases, the un-sexed adult individuals had been recipients of cremation practices and as such often lacked the necessary skeletal elements which aid in the identification of sex. Young children and slightly older adolescents often remained un-sexed as sexual dimorphism had not yet begun to change their bone structure, prior to death.

Biological sex	*Folly Lane*	*King Harry Lane*	*St. Stephen's Cemetery*	*Cross Farm*
Female	-	2	31	1
Female?	3	3	26	10
Ambiguous	1	1	6	-
Male?	2	5	18	10
Male	2	5	18	1
Unknown immature	3	11	46	8
Unknown adult	13	158	66	23
Total	***24***	***185***	***211***	***53***

Table 5.2: Demographic distribution based on human biological sex (MNI).

5.2 Distribution within burial typology

The overwhelming majority of burials analysed in this study were cremation burials. During the latter Romano-British period it is generally accepted that there was change in the frequency of burial method (from cremation to inhumation) seen across the Empire (Creighton 2006; Pitts 2007: 693-713). This 'change' first appeared in Rome, with the rest of Italy following suite sometime during the first and second centuries A.D. (Toynbee 1971). In Britain, particularly in St. Albans, it seems this change was met unfavourably and may explain the lack of inhumations seen within the area. Only 63 burials across all four sites are inhumations, making it difficult to accurately compare and contrast variation between burial rites from a statistical view point.

In order to obtain an understanding of the cultural attitude towards the individuals buried via inhumation, examination of the arrangement of the corpse within the grave was carried out. Little was recorded during the original excavations regarding the specifics of grave structure and body positioning within the grave. However, some of the more "interesting" burials did have photographs and/or drawings which contain details on body arrangement (Stead and Rigby 1989). Table 5.3 categorizes the different body positions below.

Burial types	*Folly Lane*	*King Harry Lane*	*St. Stephen's Cemetery*	*Cross Farm*
Extended supine	-	1	2	-
Prone supine	-	-	1	-
Flexed	-	-	1	-
Cist with lid	-	1	-	-
General inhumation (no specific data)	9	17	13	5
Inhumation pit (no bone)	-	13	-	-
Total	**9**	**32**	**17**	**5**

Table 5.3: Variation in inhumation (human) burial types (MNI).

Interestingly, 13 so-called "inhumation burials" at King Harry Lane were discovered to be without any trace of human bone (KHLR 1, KHLR 2, KHLR 9, KHLR 13, KHLR 17, KHLR 18, KHLR 23, KHLR 26, KHLR 27, KHLR 30, KHLR 32, KHLR 33 and KHLR 57) and few were found to have grave goods in them, allowing to their identification as burials. Likewise, there were a number of cremation pits discovered at St. Stephen's Cemetery with associated grave goods which also seemed to lack human bone (not included in numbers). It is uncertain as to whether these burials and pits are following the same cultural practice or not.

Another burial practice that seems to have occurred was a mixed-rites burial in which a single individual receives both an inhumation rite, with part of the body remaining intact, while other parts were cremated and reburied with the individual. Three such cases (SS 91, SS 179, and SS 183) were found at St. Stephen's Cemetery. However, it is much more likely that instead of representing a distinctive burial rite these partially burnt individuals are examples of so-called failed cremation burials where a lack of resources or interruption by outside forces prevented the body from fully being consumed by the fire (McKinley 2008; Noy 2000; 2005). A distinct lack of excessively repetitive skeletal elements (i.e. 3 human humerii or mixed ageing evidence) suggests these are not examples of reused burial plots.

For all of the sites, except perhaps two at Folly Lane, the practice of human-animal co-burial was seen within the cremation rite only. An older woman at Folly Lane who was inhumed upon death, was found to have had a cattle humerus placed by her own humerus (FL Burial 14). While there was no identifiable grave cut associated with this particular burial, the fact that it is a stand-alone bone with no other associations to faunal material suggests that it was a deliberate placement in the burial. Additionally, an unsexed 20 to 35 year-old was found buried with a multitude of animal bones from different species which had received mixed treatment. While the majority were unburnt, several were slightly charred or completely burnt - but not necessarily cremated.

Figure 5.1: Distal cattle humerus associated with Burial 14 (FL) (Photo taken by author).

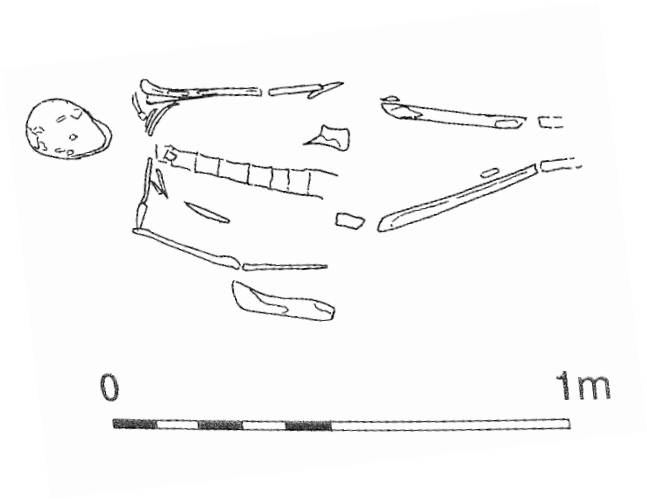


Figure 5.2: Drawing of Burial 14 (FL), modified from Image 10 [Niblett 1999: 20].

*Figure 5.3: FL Burial 14 - adult female with cattle humerus (taken from Plate IX, Niblett 1999: 21). *Image mislabelled in report as Burial 16.*

Co-burials for the four sites – Folly Lane, King Harry Lane, St. Stephens and Cross Farm									
Species	Age								
	Foetal-Neonate	Birth – 4 yrs	5 – 12yrs	Birth-12yrs	13-19 yrs	20-35yrs	35-50yrs	50+ yrs	Gen Adult
Cattle						2	3	1	1
Sheep	1				2	1	4	4	3
Pig		1	5	1	1	7	2	4	23
Chicken		1		2		2		9	12
Fish		1							2
Mammal		6	5	2	2	9	11	28	32
Bird	1	2	2		1	1	6	8	11
Total	**2**	**11**	**12**	**5**	**6**	**22**	**26**	**54**	**84**

*Table 5.4: Number of co-burials as distributed by human age and species. *Note some individuals were buried with more than one animal.*

When examining the practice of co-burial in cremation burials more closely, it was discovered that across all sites the animal remains were not segregated from the human material in separate vessels or on platters, but were rather comingled with the human remains inside the urn. For un-urned cremations, tight groupings of the remains (rectangular or circular) restricted to a particular location within the grave fill itself, suggest that even these cremations were contained in some sort of organic box or pouch which has since deteriorated (pers comm. Simon West). Again, the faunal remains for this particular type of post-cremation secondary burial were not sorted from the human remains. Additionally, as observed from the drawings from the excavation of the King Harry Lane burials, seen in Figure 5.4 below, there was no lack of accessory vessels in the grave itself. Unfortunately, this type of record was unavailable in either photographs or drawings for Cross Farm or St. Stephen's Cemetery.

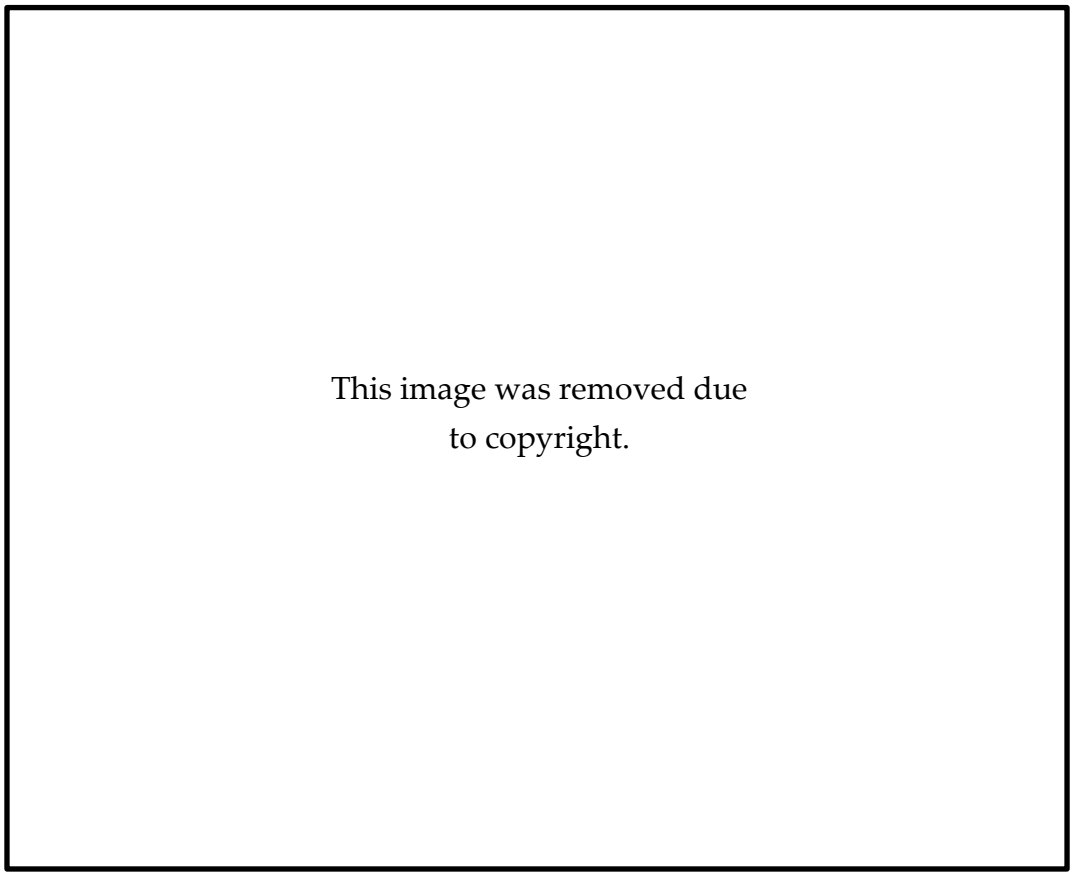


Figure 5.4: Early Romano-British cremation burials at King Harry Lane (modified from the catalogue in Stead and Rigby 1989).

5.2.1 Influence of biological age on burial rites

Carroll (pers. comm.) argues that ancient philosophies of how the family ought to be run were responsible for the cold perception of Roman childrearing and burial practices that exists today within scholarly research. Contemporary authors of the past often suggest that very young children do not rate any burial rites at all while older children rate very little in the terms of extravagance and expense (See Plutarch, *Moralia*). Hence, it has been assumed by modern scholars that children would not have been "qualified" recipients of cremation rites as they typically were surrounded by a great deal of pomp and circumstance whereas it was deemed 'good enough' to just bury the deceased child under more sombre private conditions. However, when analysed, the burials of the children found at the Verulamium sites used within this thesis offer conflicting evidence.

In examining the individuals our modern Western society would classify as children from the four sites, several variations in burial pattern occur. First, we see

children undergoing the rite of cremation accompanied by an additional adult individual undergoing the same process. At Folly Lane, a young child aged somewhere between birth and 12yrs old (FL 29) accompanies an adult of unspecified age. At St. Stephens Cemetery, there were 5 children whom were also given this combined rite (SS 22: B-4yrs, SS 52: B-4yrs, SS 55: B-4yrs, SS 153: B-4yrs, and SS 168: 5-12yrs). An additional four children from Cross Farm cemetery were also given this rite but this practice does not seem to occur within the site of King Harry Lane at all between an adult and a child. There is however, a single burial in which two adults have been placed together.

The second variation we see in cremation burial practice within these site are the cremation and burial of children without the accompaniment of other humans - adult or otherwise. At Folly Lane we see only a single human child (FL 7), aged between 5 and 12yrs old, being given this rite. Similar practices were seen at King Harry Lane, in which a total of 13 children, ranging in age from birth to 12 years old, were found among individual cremation burials, also unaccompanied by adults (KHL 15, KHL 37, KHL 57, KHL 68, KHL 120, KHL 129, KHL 162, KHL 348, KHL 365, KHL 366 and KHL 367). St. Stephen's cemetery had a total of 52 burials with children, the majority of whom were given cremation burials and were also unaccompanied. Interestingly, the majority were on the younger end of the "child" spectrum with a total of 38 children ranging in age between birth and 12 years old, while only 7 children were aged between 13-19 years old at time of death. Of those 45, 16 were buried with animal remains.

In keeping with contemporary writings regarding the inhumation of children as an adequate burial rite, nine child burials were discovered at King Harry Lane (KHL R 1, KHL R 2, KHL R 3, KHL R 4, KHL R 5, KHL R 6, KHL R 7, KHL 50 and KHL 58). Examples for this practice are also found in Folly Lane (N= 3 burials) and St. Stephen's Cemetery (N= 3 burials) as well. Interestingly, the practice of multiple human co-burial was found amongst the inhumation practise as well with four child burials at St. Stephens being given the rite of co-burial with an adult human (SS Burial 55A + B, Burial 153A+B, Burial 168A + B and Burial 177A + B).

Interestingly, there was a single example of a young child buried with an older child (SS Burial 52A + B). None of these included animal remains. Three of the five neonates found at Cross Farm were buried with an adult (CF Burial 16A + B, Burial 17A + B and Burial 47A + B). Interestingly, one double human burial was that of a neonate with a slightly older child.

This practice of human co-burning and burial seems to go against the philosophical suggestions for the 'appropriate' burial. It is unclear if co-burials of humans would mean, in essence, that the child would be accompanied in whatever was thought to occur after death (i.e. the journey to the afterlife). Alternatively, perhaps there was no direct social stigma attached to an adult and child being given only a single cremation and burial event. One can speculate that in cases where young individuals died and were buried with another individual, that perhaps the burial partners also died on or around the same time and possessed a familial relation to each other. A particularly good case of this can be argued when the pair is a female adult and foetal-neonate child for a mother who died in childbirth. However, there are many more questions that arise when speculating the patterns of burial within a social group and attempting to determine social hierarchy of the individuals in receipt of a rite which does not seem to be fitting of their typical classification - due to either age, sex, or perceived social status. While burial status has always interested the author, it became a point-in-question when attempting to better identify who was receiving what as far as the practice of human-animal co-burials. Was this an adult-specific rite? Or was it something that was afforded to a specific social class?

While Pliny suggests it was not in 'good Roman' behaviour to heavily mourn a young child, it does not mean the community, particularly the middle- and/ or lower – classes of the societies followed the recommendations of the ruling elite and their council. Furthermore, it must be strongly pointed out that the contemporary literature of the time was written by elite males with a very Stoic and/or Epicurean view of the world that shunned public mourning. This was not the same world in which the mothers, wet nurses and other women (whom all interacted closely with

infants) would have bought into. Once more, the difference between the male sector and the female sector of the Roman world and family ideals may come into play when it comes to burying practices.

One big aspect to consider is the Roman/Romano-British understanding of age classification and how it is different from our modern Western classification of at what age is someone an adult and how is adulthood defined? According to Roman law, boys as young as 14 years old and girls as young as 12 could marry (Rawson 1991: 27), meaning, both publicly and privately, these so-called 'children' by modern standards were socially 'adults' by Roman/Romano-British standards. As such this could have had an effect on the burial treatment they were afforded. But then how does this deal with the much younger children who have undergone cremation? Of course there is the additional possibility that surviving family members wished the deceased to receive the rite of cremation over inhumation against the advice given by contemporary authors. The majority of the burials used for this study date from around the time of the Roman conquest in the first century A.D., when allegiance to Rome may have not been very strong, and thus may reflect non-Romanised traditions. Moreover, it is difficult to assess whether the burial practices of the St. Albans population reflect attitudes of native or Roman views when grave goods and burial typology can equally be found in association with either group.

At these sites it would seem that the children who received cremation rites along with faunal remains within their burials were potentially seen or understood as a specific subgroup that all fulfilled some socially or biologically motivated criteria. Meaning it may be possible that the children and adults buried alongside faunal remains were part of a single subgroup within the population and seen or marked as different from the rest of the community population. In following research done by Jones *et al.* (forthcoming) a case for certain faunal species to be included for reasons associated with humoral and elemental theory come to mind (a subject which will be discussed later in Chapter 6.3).

Children of Verulamium (N = number of burials)				
Burial typology	King Harry Lane	St Stephens	Folly Lane	Cross Farm
Inhumed alone	7	3	3	
Inhumed with other humans				
Inhumed with animals				
Inhumed with animals and humans				
Cremated alone	14	25	1	4
Cremated with other humans		2	1	4
Cremated with animals	5	17	1	
Cremated with humans and animals		4		

Table 5.5: Variation of co-burial practices amongst individuals 17years and younger.

Adults of Verulamium (N = number of burials)				
Burial typology	King Harry Lane	St Stephens	Folly Lane	Cross Farm
Inhumed alone	11	5?	2	
Inhumed with other humans				
Inhumed with animals		7?	2	
Inhumed with animals and humans				
Cremated alone	114	73	8	36
Cremated with other humans	1	3	1	1
Cremated with animals	19	67	3	3
Cremated with humans and animals	1	4	1	2

Table 5.6: Variation of co-burial practices amongst individuals 18years and older.

5.2.3 Biological sex and the receiving of funerary rites

The ability to understand whether the practice of human-animal co-burial was motivated by biological sex was not easily available due to the high numbers of individuals whose sexually dimorphic characteristics were destroyed during the

cremation process. It would require many more individuals possessing well preserved skeletal regions in order to make any evidence-based assessments as to whether this was the case or not. The question still remains, however, if certain species were linked to a particular sex and therefore would be more common to one over the other. This is, however, assuming that biological assessment of sex mirrored the socially constructed gender identity of the individuals.

5.3 The zooarchaeological assemblage within the burials

In order to gain a clearer picture of the animal species deposited with the dead, faunal skeletal fragments were counted using both "number of identifiable specimens" (NISP) as well as "minimum number of individuals" (MNI). Due to the highly fragmentary nature of cremations, the quantification of material was extremely difficult, often relying on slightly different sizes of particular bone fragments, shapes and/or visible stages of fusion.

A total of 401 faunal skeletal fragments were found buried with human material from all sites, of which half were identifiable to species. When examined on a site by site basis, typically less than 50% of the burial population received the rite of co-burial suggesting that this was a selective and/or restrictive rite. Four out of 24 graves (17%) were found to contain faunal remains at Folly Lane, with at least 16 different faunal individuals (MNI) occupying some part of the human burial space. 39 out of 185 human burials (21%) from King Harry Lane also contained, at the very least, 60 faunal individuals (MNI). St. Stephen's Cemetery has the rate of co-burials, containing 87 human-animal co-burials out of the total 211 burials on site (41%). The burials in question were found to include remains from 138 individual animals. Cross Farm, on the other hand had the smallest percentage of co-burials, with only four out of the total 53 burials (7%) containing the remains of five individual animals.

Interestingly, the majority of co-burials were made up of one human occupant buried with one animal occupant of a single species, represented perhaps by more than one faunal skeletal fragment. Less frequently, one human occupant

was found with two animal occupants of different species, while on occasion one human occupant was found with two animals of the same species, typically represented by multiple fragments (see Figure 5.5 for greater detail). Of all the cases found across all sites, only six burials contained multiple humans with animals. Often this was two human individuals of similar ages (FL 26, CF 17, SS 175, SS 174, and SS 183) but there is also an instance of a human adult buried with a much younger human child (SS 57).

There were a number of different variables found within the human burials at the four different sites. This was both in the number of human occupants and the burial type (i.e. cremation or inhumation) afforded to the individual(s). Combinations of a single human, more than one human of similar ages and more than one human of different ages were found in single grave cuts. When examining the number of faunal species and individual animals per human burial this was also found to differ greatly. The most common human-animal co-burial was between that of one human individual and one animal individual (Folly Lane N= 1 burial, King Harry Lane N= 20 burials, St. Stephens N= 54 burials, Cross Farm N= 5 burials). The second most common combination found within human-animal co-burial practices was the inclusion of two different animal individuals which represented two different faunal species (Folly Lane N= 2 burials, King Harry Lane N= 7 burials, St. Stephens N= 28 burials).

Rarer combinations of human-animal co-burials included two different animal individuals from a single faunal species (Folly Lane N= 2 burials, King Harry Lane N= 1 burials), and more than two animal individuals representing more than two faunal species (Folly Lane N= 1 burial, King Harry Lane N= 4 burials, St. Stephens N= 4 burials). King Harry Lane was the only site to contain human-animal co-burials in which a human individual was buried with more than two animal individuals representing two different faunal species (N= 5 burials).

5.3.1 Species distribution

When examining the preference for animals at King Harry Lane, pigs were the most frequently included species in the burial rite with an estimated 30 individuals (MNI) [N = 69 fragments; 54% of the burial assemblage], whereas chicken was represented by an estimated nine individuals (MNI) [N = 13 fragments; 10% of the burial assemblage], cattle [N = 2 fragments; 1% the burial assemblage] and sheep [N = 1 fragment; 1% of the burial assemblage] are included but to a much lesser extent with only one individual each. However, there was an estimated 43 fragments which cannot be confidently be identified to species and accounts for 34% of the assemblage. Typically, this category is reserved for fragments that are so small that it is impossible to determine what sized animal they might have belonged to previously.

Of the human-animal co-burials found at St. Stephen's Cemetery, chickens were the most frequently included species with an estimated total of 16 individuals (MNI) [N= 26 fragments] representing 12% of the assemblage. This was followed closely by pigs and sheep, with equal number of fragments (N = 13 fragments) although the estimated minimum number of individuals differed, with 13 and 10 individuals respectively. This difference in numbers was down to the numbers of burials the fragments were spread across. Fish were also present with three individuals (MNI) identified, representing 2% of the overall assemblage [N = 3 fragments]. There are an additional two fragments that were deemed to be cattle-sized, therefore making up 1% of the assemblage [2 individuals (MNI)]. However, there was a large portion of highly fragmented unidentifiable medium-sized (likely to be sheep or pig) mammal bones making up 51% [N = 110 fragments]. There were a further estimated 48 fragments from unidentifiable avian species which counted for 22% of the assemblage.

The funeral assemblage from Folly Lane follows more similar to Cross Farm than the two pervious sites with cattle making up 29% of the assemblage represented by an estimated five individuals (MNI) [N=15 fragments], followed by sheep [N= 8 fragments] and pig [N = 9 fragments] both with an estimated three

individuals. Last but not least, there was also one individual, possibly chicken, who was represented through three fragments from a single burial. This estimation was based on similarity in morphology between the fragments as well as species identification and burning temperatures (discussed later in Section 8.5). There were also an additional 17 fragments which could not be identified any further than belonging to the mammalian classification and made up 33% of the assemblage. These fragments most likely come from a medium-sized mammal such as a sheep or pig.

Similar to the previous assemblage, the Cross Farm material displayed a greater preference for cattle over other species [N = 3 fragments, 3 individuals (MNI)]. Despite extremely low numbers of co-burials, pig [N = 1 fragments, 1 individual (MNI)] and sheep [N = 1 fragments, 1 individual (MNI)] were also present.

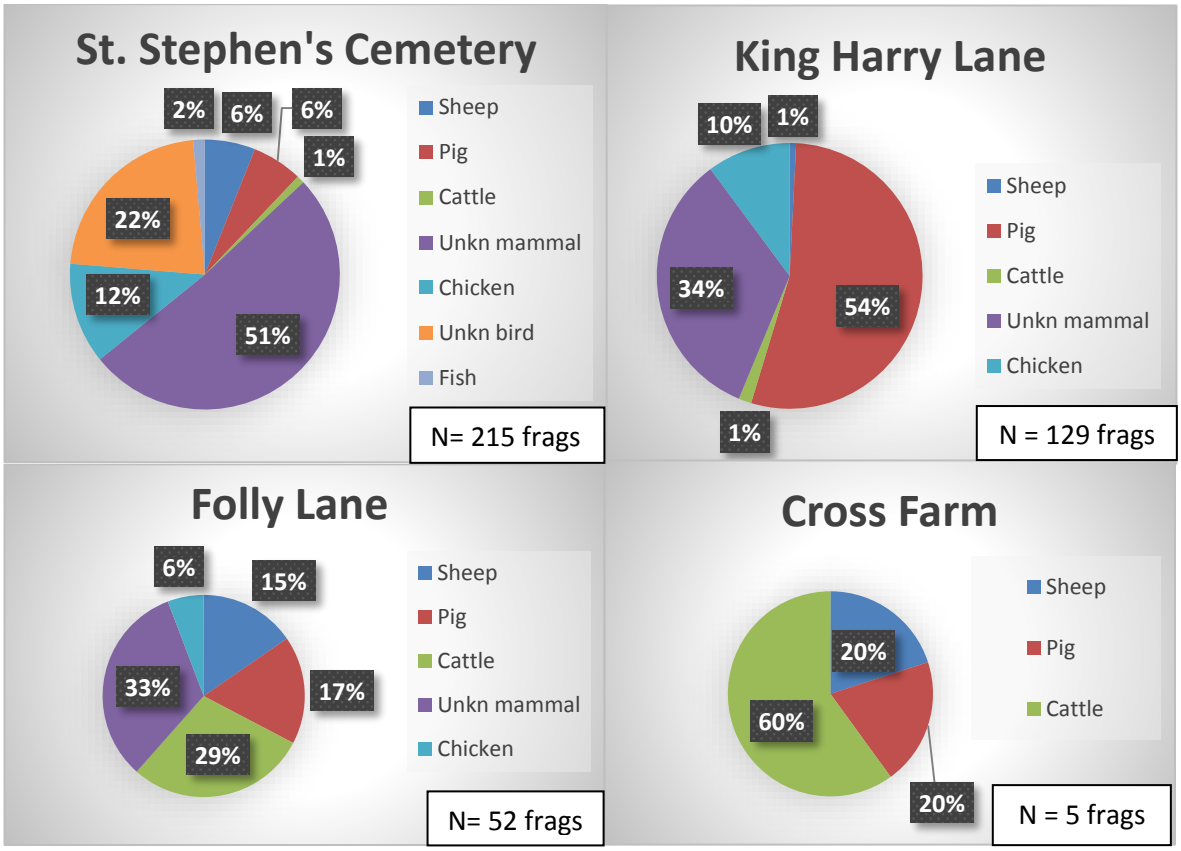


Figure 5.5: Percentage of animals within burials on a site-specific basis (NISP).

The high fragmentation commonly found in cremation assemblages has made it difficult to analyse precisely the minimum number of animal individuals placed within each burial, however it has been assumed by the author that fragments from a particular species are isolated to a single burial event as the Romans deemed it to be of lower or unreputable status to have to reuse another's funerary accessories (see discussion of Williams 2004a, b in Chapter 11.3). In the case that the same species are found amongst different burials, it has been assumed that separate individual animals were used for each burial event. In other words, skeletal remains of an animal were only used in one burial at a time and not spread across multiple burials. It is possible that in the cases where unidentified faunal material exists, the fragments do in fact originate from individual animals already counted in the said burial rather than originating from different animal individuals.

5.3.2 Elemental representation

An inventory of the skeletal elements present within the burials from each site was created. While a portion of faunal remains from Folly Lane could not be identified to species, skeletal elements from chicken, pig, sheep and cattle were found. Chickens were represented by both humerus (N= 2 fragments) and tibial fragments (N= 1 fragment), while sheep was represented by head and hind limb fragments. Head and hind limb fragments were also present for pig. Cattle were the most frequently identifiable species represented by head, forelimb and hind limb fragments.

King Harry Lane contained many more occurrences of animal skeletal elements representative of various groupings from the whole body. Overall, pig was the most frequent animal to be found in the burial rites, with skeletal representations from head, forelimb, and hind limb regions. Chickens, on the other hand, were only represented in the assemblage by forelimb and hind limb elements. Cattle (N = 1 skull fragment and 1 tooth fragment) and sheep (N = 1 fragment) were represented by a few fragments from the head including teeth.

Folly Lane (NISP)					
Skeletal Element	Sheep	Pig	Cattle	UI mamm	Chicken
Skull		2	1	2	
Zygomatic	1				
Axis			1		
Teeth	1		2		
Sternebrae	1				
Rib			5	3	
Scapula		1		1	
Humerus			1		2
Pelvis		1	1		
Femur	1		2	2	
Tibia		1			1
Long bone fragments	4	4	1	4	
Calcaneus				1	
Phalanx		1		1	

Table 5.7: Folly Lane faunal distribution (NISP) according to skeletal elements.

King Harry Lane (NISP)					
Skeletal Element	Sheep	Pig	Cattle	UI mamm	Chicken
Skull		20	1	8	
Teeth	1	3	1		
Atlas (vert.)		1			
Vertebrae				3	
Coracoid					1
Scapula		1		1	
Humerus		5		3	1
Radius		2		1	1
Ulna		3		1	
CMC					3
Rib				2	
Pelvis		2		1	
Femur		10		14	2
Patella				1	
Tibia		10		4	5
Limb frag				3	
Calcaneus		4			
Astragalus		7			
Phalanx (foot)				1	

Table 5.8: King Harry Lane faunal distribution (NISP) according to skeletal elements.

At St. Stephen's Cemetery, birds (particularly chickens) were well represented. From the identifiable material, the forelimb and hind limb regions were recorded for chicken. Additionally, head, forelimb, and hind limb fragments were also found to belong to unidentifiable bird species. Pigs were fairly well represented with head and hind limb regions. Head, forelimb and hind limb regions, thought to be sheep, were found amongst the cremated material while fragments from the forelimb and other general appendicular regions were identified as belonging to cattle (N= 1 rib fragment and 1 limb fragment). Interestingly, three rib fragments were also found and are thought to have originated from fish.

St. Stephens Cemetery (NISP)						
Skeletal Elements	Sheep	Pig	Cattle	UI Mamm	Chicken	UI Avian
Skull	1	3		21		5
Teeth		1		1		
Hyoid				1		
Sternum				1		2
Vertebrae				15		
Scapula				2		
Humerus				1	1	2
Radius					2	2
CMC						1
Coracoid					1	1
Rib	4		1	2	1	
Pelvis	1			3		
Femur	1	1		2	1	3
Tibia				2		2
TMT					2	
Limb frag	5	9	1	68	20	21
Metatarsal	1			1		
Phalanx foot				1		2
Phalanx wing						2

Table 5.9: St. Stephen's faunal distribution (NISP) according to skeletal elements.

Cross Farm had the least skeletal representation of faunal remains amongst the human burials, with only six fragments being non-human. Two of those fragments belonged to the skull region (one a zygomatic) of cattle. Two fragments are thought to be from sheep- one a long bone fragment and the other a skull fragment. Another long bone fragment was from a pig, while another single long bone fragment was unidentifiable to species.

Cross Farm (NISP)			
Skeletal Element	Sheep	Pig	Cattle
Lb frag	1	1	
Skull	1	-	2

Table 5.10: Cross Farm faunal distribution (NISP) according to skeletal elements.

5.4 Mortality rates and selective burial

Using the methods outlined in Chapter 4.1 and 4.2 respectively for specific species, the age-at-time-of-death was determined for the identifiable skeletal fragments. In cases where species could not be determined, the general size and state of fusion of the epiphyses to the metaphysis was noted to determine whether the individual animal would be placed in either the juvenile, sub-adult or adult category. 90% of the animals found in the King Harry Lane burials were adult (N = 54 individuals) while 10% were neonate (N = 6 individuals). St. Stephen's Cemetery contained 89% fully mature animals (N = 123 individuals) in the burials while 11% were neonate to young juvenile (N = 15 individuals). At Folly Lane, 87% of animals were fully mature (N = 14 individuals) while 13% were juvenile (N = 2 individuals). All of the animals found in the human material from Cross Farm were adult (N = 5 individuals).

Across all sites, there seems to be a general preference for the inclusion of fully mature animals. For pigs, full skeletal maturity would be reached around three and a half years (Wilson *et al.* 1982) whereas chickens are considered to be of reproductive age around 5 months but not fully mature until around 11 months or older (Serjeantson 2009). However, amongst the remains which were confidently

identified as sheep, individual animals tended to be neonatal or sub-adults under a year old. It must be noted that this data was particularly difficult to gather and may have faults, as most of the estimations of age are based on very few, if not single fragments from a single animal. Unfortunately, the data for biological sex of the animals were not able to be taken as this relies upon whole skeletal elements in which diagnostic metric measurements can take place and is not suitable for cremated animal remains.

After only using the identifiable skeletal material to split faunal species into biological sex categories, there is a similar distribution in the number of pigs, chickens, and sheep co-burials across both male and female human burials. The data show that cattle fragments tend to only be found with human males while they are seemly absent from human female burials. This hypothesis, however, is based on a small number of sexable individuals (N = 30 total individuals) from the overall amount of human individuals examined in this thesis. Cases in which the sex could not be determined also display similar inclusions of chicken, pig and sheep - thus the presence of a particular animal does not really shed any light on the sex of the human individual (see Table 5.10). Likewise, when examining ages for the receiving of a particular faunal species, or the rite altogether, the data shows that, typically, individuals anywhere from 20 years or older could be a potential recipient for any of the species discussed in this thesis. With that said, there was a male and a female individual who were estimated to be between the ages of 13 and 19 years old at their time of death both of whom, interestingly, were co-buried with sheep fragments. Again, it must be stressed that these were only two cases out of 30 individuals whose sex could be determined.

In reference to biological age as a common denominator for the inclusion of faunal remains in final burial rites, it seems that very few individuals between birth and twelve years old were seen as being "worthy" to receive the ritual (N= 5 individuals). Those buried with animals seem to have a preference towards pigs and chickens and perhaps fish, but seemingly are not buried with cattle or sheep (see Table 5.11). Interestingly, this follows humoral/elemental theories of juveniles

being considered wet and warm while adults were thought of as cold and dry (see discussion in Chapter 6.3). Furthermore, I must highlight that most of these children are not found as part of a co-burial with an adult human but seem to partake in the burial rite themselves. This may have meant that they reached whatever the cultural standard was for receiving that particular rite as part of the burial ritual. The only exception of this is St. Stephen's Cemetery Burial 57 + 58 which has a young male buried with a young child together with a chicken. It is unclear whether the inclusion of the chicken is meant for one of the individuals in particular or if it is meant for both grave occupants.

Presence of Species **uses burials with identifiable species only*					
*Male (N= 15 individuals)***	***Pig***	***Cattle***	***Chicken***	***Sheep***	***Unkn Mammal***
King Harry Lane	X	X	X	X	X
St. Stephen's Cemetery	X	-	X	X	X
Folly Lane	-	-	-	X	-
Cross Farm	-	X	-	-	-
*Female (N= 15 individuals)***	***Pig***	***Cattle***	***Chicken***	***Sheep***	***Unkn mammal***
King Harry Lane	X	-	X	-	X
St. Stephen's Cemetery	X	-	X	X	X
Folly Lane	-	-	-	-	-
Cross Farm	-	-	-	X	X
*Ambiguous (N= 2 individuals)***	***Pig***	***Cattle***	***Chicken***	***Sheep***	***Unkn mammal***
King Harry Lane	-	-	-	-	X
St. Stephen's Cemetery	X	-	X	X	-
Folly Lane	-	-	-	-	-
Cross Farm	-	-	-	-	-

Table 5.11: Inclusion of certain species across different human sexes from all sites (MNI).

Presence of Species ** uses burials with identifiable species only						
Unsexed juveniles (N= 5 individuals)**	***Pig***	***Cattle***	***Chicken***	***Sheep***	***Fish***	***Unkn mammal***
King Harry Lane	X	-	-	-	-	X
St. Stephen's Cemetery *	X	-	X	-	X	X
Folly Lane	-	-	-	-	-	-
Cross Farm	-	-	-	-	-	-

*Table 5.12: Faunal species distribution seen for unsexed juvenile human co-burials (MNI). *denotes mixed adult/juvenile remains.*

Likewise, when cross examining human grave occupants of known ages with their co-burial faunal occupants, the data shows a general trend of humans being buried with adult faunal species. However, this is not to say that young animals were not part of the burial ritual, as about 7% of all co-burials had juvenile faunal remains present. Additionally, about 10% of all burials had both adult and juvenile faunal species present within the human burial. Despite not being able to assign specific biological age or sex identification to every individual examined in this thesis, the tables below highlight the fact that within each site less than half of the population was equipped with animal remains as part of the burial rite.

Human age	***Animal Age***			***Total no. of burials on site***	***Total % of human-animal co-burials present on site***
	Adult	***Juvenile***	***Mixed adult and Juvenile***		
Adult	31	-	4	166	21.1%
Juvenile	3	-	-	19	15.8%
Total population	34	-	4	185	20.5%

Table 5.13: Number and percentage of human-animal co-burials found at King Harry Lane.

Human age	Animal Age			Total no. of burials on site	Total % of human-animal burials present on site
	Adult	Juvenile	Mixed adult and juvenile		
Adult	60	6	7	168	43.4%
Juvenile	11	6	1	43	41.8%
Total population	71	12	8	211	43.1%

Table 5.14: Number and percentage of human-animal co-burials found at St. Stephen's Cemetery.

Human age	Animal Age			Total no. of burials on site	Total % of human-animal burials present on site
	Adult	Juvenile	Mixed adult and Juvenile		
Adult	3	-	1	20	20%
Juvenile	-	-	-	4	0%
Total population	3		1	24	16.6%

Table 5.15: Number and percentage of human-animal co-burials found at Folly Lane.

Human age	Animal Age			Total no. of burials on site	Total % of human-animal burials present on site
	Adult	Juvenile	Mixed adult and Juvenile		
Adult	5	-	-	45	11.1%
Juvenile	-	-	-	8	-
Total population	5	-	-	53	9.4%

Table 5.16:Number and percentage of human-animal co-burials found at Cross Farm.

5.5 Burning temperature variation and what it means

The colour of bone relates to the intensity of the burning of bone and, indirectly, to the situation in which the burning occurred. Effects from natural fires can be differentiated from those of human controlled fires because natural fires tend to only burn part of an element, destruction to the bone tends to be superficial, and does not produce bone burned to grey or white (David 1990). Direct contact with a

sustained fire from cooking or disposal would produce a fuller range of burning intensities, although the practice of cooking will cluster towards the lower end of the scale in order to keep the flesh edible (Cain 2005). According to Cain (2005) bone in hearths will produce a specific distribution of bone colours, while bones placed under hearths, and therefore not in direct contact with the fire, are insulated and therefore may produce a different pattern (typically ranging from hardly burned to blackened) (Stiner *et al.* 1995). In another study, bones placed under the hearth resulted in colour changes ranging from unburned to a burnt grey colour (Bennett 1999).

In examining burning temperatures across human and faunal remains, I am attempting to ascertain whether or not it was possible that the corpses were burned simultaneously in one ritual or if they went through separate ritual events prior to burial. By using Schmidt and Symes' (2008) Munsel-like colour chart, seen in Appendix A8.1, which was compiled based on several experimental data collections, I was able to assign a relative burning temperature at which the cremation could have occurred. Across all the sites 23 human individuals displayed colours ranging from brown to charred black (suggestive of a burn temperature somewhere between 100°C to 399°C), while 15 human individuals displayed even lower burning temperatures. Two human individuals displayed changes to the bones associated with mixed temperatures ranging from 300°C to 599°C. Three human individuals displayed higher temperature burns resulting in lighter brown-greys to darker black greys, suggestive of temperatures between 500°C-799°C. There were 90 human individuals which displayed medium to high temperature burns resulting in lighter grey/blue to white colour changes suggestive of temperatures between 800°C-1000°C. The majority of human burials, totalling 296 human individuals, displayed the highest temperature burns ranging in colour changes from dark blues to pure white suggestive of pyre temperatures getting as high as 900°C to1100°C or more.

Burning temp	*St. Stephen's Cemetery*		*King Harry Lane*		*Folly Lane*		*Cross Farm*	
	Human	Animal	Human	Animal	Human	Animal	Human	Animal
Under 100°	0	0	15	8	0	5	0	0
100°-399°	0	0	23	10	0	0	0	0
300°-599°	0	0	0	0	2	0	0	0
500°-799°	0	0	0	0	3	0	0	0
800°-1000°	46	38	24	12	10	5	10	0
900°-1100°+	154	100+*	93	30+*	6	4	43	5
Total	**200**	**138+***	**155**	**60+***	**21**	**14**	**53**	**5**

Table 5.17: Comparisons of burning temperatures (based on MNI calculations).

Instances of animal cremations (N= 217 estimated individual animals) found mixed in with human cremated material were found to display temperatures similar to the human remains they were buried with (Table 5.16). Thirteen animals were found to have only slight modifications to their skeletal remains which can be associated with extremely low burning temperature, usually less than 100°C. There were ten animals found to be between 100°C and 399°C. The majority of cases were found to be at the hotter end of the temperature scale, with animals displaying colour changes common with burning temperatures as high as 800°C to 1000°C (N= 55 individuals). Like their human counterparts, the majority of faunal individuals (totalling in 139 animal cremations) displayed colour changes associated with higher temperature burns ranging between 900°C-1100°C or more.

All in all, it can be generally said that the animal remains found in association with the human remains in the burials were burned at the same rate or at slightly lower temperatures than their human grave counterpart. This is demonstrated by the grey/white colouring of the animal bones which suggests deliberate burning at extremely hot temperatures in order to reach the oxidation levels associated with that particular colour change. In effect, one can say that it was likely that the bones were in a sustained heat for an extended period of time and were not a last minute addition to the pyre.

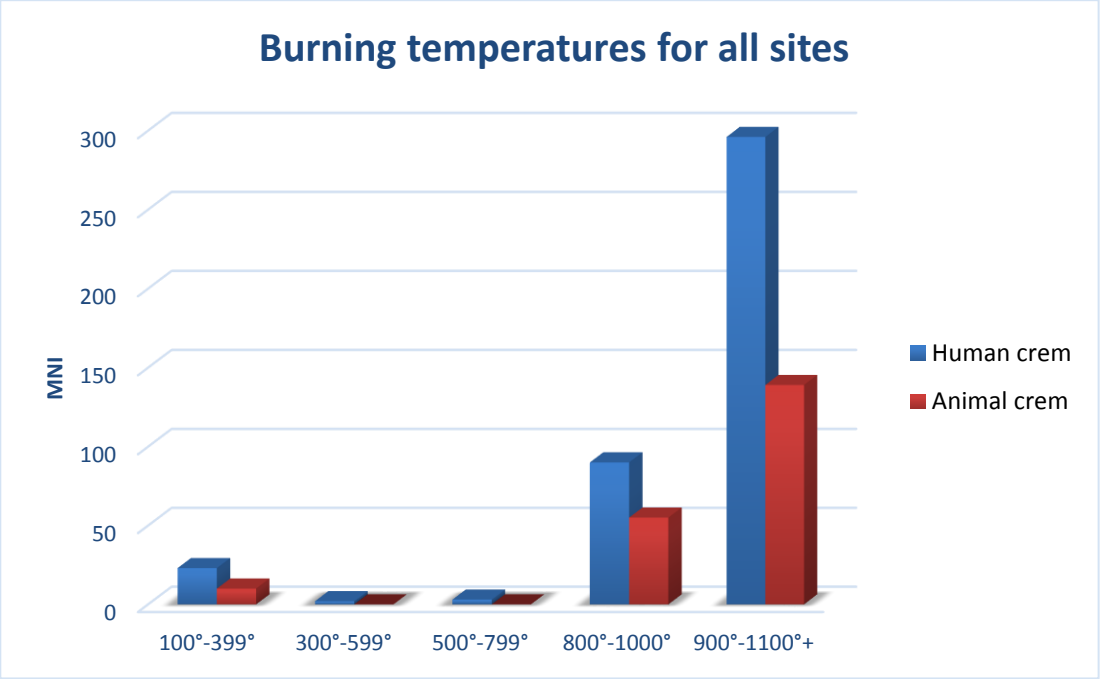


Figure 5.6: Distribution of burning temperatures for all sites (MNI).

5.5.1 Colour as an indicator of the state of bone pre-cremation

As a result of extensive research (see Baby 1954; Bennett 1999; Binford 1963; Buikstra and Swegle 1989; Gilchrist and Mytum 1986; Hermann and Bennett 1999; Knight 1985; Mays 2002; McCutcheon 1992; McKinley 2000; Nicholson 1993; Shipman *et al.* 1984; Stahl 1996; Stiner 1991; Stiner *et al.* 1995), attributes of thermally modified bone can, in principle, be used to indicate the condition of the bone when burned, characterise the heat source and its intensity, as well as differentiate intentional and unintentional heating of faunal specimens. Variation in bone colour, location and intensity of burning damage on an element can be used to indicate whether a bone was fleshed, defleshed, or dry at the time of heat exposure, and whether elements were articulated at the time of burning (Buikstra and Swegle 1989).

The majority of experimental research has tested the relationship between colour and temperature, with results indicating that colour change largely reflects the sequential decomposition of the organic and inorganic components of bone with increasing heat (Correia 1997: 276). Most experimental results also show that fresh bone follows a general progression from brown through black, then grey-blue-

white to white with increasing temperature (Schmidt and Symes 2008). Colour changes, however, were not diagnostic in separating defleshed from fleshed remains, as both turned grey/blue/white upon calcination, but did distinguish dry bones from fleshed and defleshed specimens as dry bones turned tan with white underneath when heated to high temperatures (Buikstra and Swegle 1989: 256).

Given the lack of tan underlying white colouring found in the material from my own sites, described by Buikstra and Swegle (1989), it would suggest that both the human and animal remains observed in this project were likely to have been either fleshed or defleshed prior to undergoing the cremation process rather than having been constituted of dry bone. Moreover, it would suggest that the faunal remains themselves would not likely have been cooked in another event before being added into the cremation burning ritual.

5.5.1.1 Surface texture of bone and non-burning discolouration

A concern existing amongst much of the literature, particularly with regards to the identification of burning amongst animal remains, is the changes associated with surface textures. Bones which have been buried may have been coloured as a result of factors other than burning, including post-mortem funerary rites, and soil conditions after burial (Nicholson 1993). Gejvall (1969) cites a case from World War II in which human cremations were initially interred in paper pulp containers but later reburied. He noted that the cremated bones had assimilated colour from the soil. Franchet (1933) observed organic acids may turn bone brown, dark blue or blue-grey, while manganese dioxide causes blackening. Iron oxides are responsible for yellow and orange tones, while iron phosphate causes light blue and green tones. However, the extent of fissuring and cracking seen throughout my assemblages validates the assessment that the colour changes are as a result of the bones having undergone cremation processes.

Interestingly, there are examples of fragments with red/orange discolouration within my assemblages which are thought to have come into contact with iron objects either being burnt nearby during the cremation or which sat

amongst the bones post-cremation causing leeching to occur. In some instances, the iron objects have melded with the bone itself and remain attached (see Figure 5.7 below).

Figure 5.7: Two fragments of bone fused together by metal, found in FL Burial 13 [photo taken by author].

Additionally, bones heated at the peripheries of a fire may be heated to a far lower temperature than bone exposed to the flames in the centre (Nicholson 1993). In further understanding the cremation process, McKinley (1989) found that fleshed bone generally burns to a greater degree than defleshed or partially fleshed bone once oxygen reaches it, as a result of the higher temperature generated by burning fat. In principle, the colour changes seen must be applied to the bone surface temperature rather than the temperature reached by the actual heat source (fire). Nicholson (1993) also found that variation in colour may also reflect variation in bone types. For instance, combustion of the organic components seemed to have taken longer to reach in fish bones than in the mammal or bird bones. This might explain why the few fish remains in the St. Stephen's burials was amongst the darkest of bones in comparison to the avian or non-human mammal material seen amongst the human cremations.

5.5.2 Temperature changes and outside factors

Lyman (1994: 392) summarises research not only on how bone burns, but also how burning can be can be recognized archaeologically. The author makes a point to highlight that studies of burned bone have not translated into "…. techniques for the unravelling of the taphonomic histories of assemblages with varied frequencies of burned skeletal parts" (*Ibid.*). Instead, they often specifically look at the burning history of archaeological bone refuse or at identifying techniques used for the purpose of human cremation (through the use of faunal species to simulate human burning scenarios) (Buikstra and Swegle 1989; Correia 1997; Whyte 2001). Therefore, I believe I have recognised a gap in the literature concerning this path of research.

While the studies listed below describe single burning scenarios, it is possible that secondary burning scenarios, such as faunal remains being prepared and cooked for consumption and then having the now defleshed bones join in a secondary burn of, say, cremation. Logically, one can imagine that previously cooked bone might be considerably more fragile and responsive to colour changes, since some slight changes have already occurred within the bony material. However, it might be that, due to the lack of fatty tissues present to act as an additional accelerant, the recently defleshed bones may react similarly to dry bone which generally takes longer to reach higher temperature levels. It is assumed that additional burnings may mask any previous evidence of cooking if, given high enough temperatures, the organic and inorganic components of the bone would take on the characteristics associated with typical cremation (fissuring, fragmentation, etc.). This, however, is not a hypothesis supported by any evidence and therefore, the author believes further research in this area is warranted.

5.*6 Weight and what this means for preservation- secondary burial rites*

Similarly, the analysis of individual bone weights of cremated human and animal remains allows the archaeologist to draw conclusions about how much material was collected for the secondary rite of a burial following the cremation.

While fire is known to be very destructive, the preservation, quality and quantity of the cremated material was generally good. Over half the individuals contained skeletal elements that were representative of the major regions of the body: the head, torso, upper limbs, lower limbs, and spine. Interestingly, however, when compared against the study done by Wahl (1982) the majority from St. Albans are considered to be nowhere near the weight expected for a complete adult human skeleton. Table 5.17 outlines how weights were divided amongst the cremation burials from Verulamium.

From all four sites 85 individuals were found to weigh less than 100g, 71 burials were found to be between 100g-300g, an additional 65 burials containing ranged between 300g-500g. Another 50 burials were found to weigh between 500g-700g, 62 burials were between 700g-900g, while another 30 burials weighed between 900g-1100g. 42 burials (containing 47 individuals) were close to but not at Wahl's (1982) weight estimates for a single adult cremation at 1100g-2000g+.

Weight (g)	**St. Stephen's Cemetery**	**King Harry Lane**	**Folly Lane**	**Cross Farm**	***Total***
<100g	56	14	5	10	***85***
100g-300g	25	26	1	19	***71***
300g-500g	23	28	4	10	***65***
500g-700g	22	22	1	5	***50***
700g-900g	28	27	-	7	***62***
900g-1100g	17	12	1	-	***30***
1100g-2000g	21	16	1	1	***39***
2000g+	2	-	1	-	***3***
Total	***194***	***145***	***14***	***52***	***405***

Table 5.18: Number of cremated individuals broken into bone weight categories.

The average modern adult human is estimated to produce 2-3 kg of material post-cremation suggesting that the majority of cremation burials at Folly Lane, King Harry Lane, St. Stephen's Cemetery and Cross Farm contained less than half a single skeleton (Wahl 1982). Interestingly, when examined for repeating skeletal elements

(for example three humerii where there should be only two) it was found that 22 of the total number of burials had more than one human grave occupant. Out of those 22, twelve of those were an adult and child, typically an infant, buried together thus increasing the actual weight of the remains. Even when considering the 22 multiple burials, by the author's estimate, only three out of 408 cremations contained enough material to be considered a complete single individual meaning that the members participating in the collection of the deceased for burial were not retaining everything.

The purpose of this method of investigation is two-fold; firstly, it quantifies the extent to which mourners, or perhaps funeral workers, took care to collect the remnants of the deceased post-cremation. Secondly, it challenges the current scholarly beliefs regarding the level of care and importance given to the completion of the burial ceremony. While it is generally accepted that 100g is all that is necessary for a token deposit, the above weights suggest more effort was placed into the collections of the remains even though it was typical of the time to not collect the whole body. This of course raises the question, what is needed for a burial to be, by some standard, complete or fulfilled? In this case, as evident by the cremation weight, one can say that retention of a complete skeleton was not necessary. As such, it is possible that more individuals were buried with faunal remains that simply did not make it into the final burial.

5.7 Cut marks, gnawing and evidence for dismemberment - pre burial treatment

In the past, scholars often use the presence/absence of cut marks and/or animal gnawing in order to make statements about the pre-burial treatment of the body. For both human and animal remains, this can include exposure or human-prompted dismemberment of the corpse prior to being inhumed or cremated.

5.7.1 Cut marks as evidence of animal dismemberment prior to burning

Close examination of the bony surfaces reveals that the faunal remains from all mammalian species across all sites show very little in the way of cut marks which

could be associated with the filleting and dismembering of the skeleton. This could be interpreted as showing little/no signs of being processed for human consumption if one were to think about it in subsistence terms.

With that said one must remind themselves that the material which I am dealing with has been cremated and as such it remains possible that skeletal elements showing butchery evidence were simply destroyed in the cremation fires or were not collected/deposited along with the rest of the skeletal material. A simple explanation may be that cuts and/or nicks on cremated bone may be more difficult to identify as there is a great deal of splitting that occurs as the skeletal material is heated, expands and cools during the burning process.

It is possible that at least three of the chicken femoral shafts from King Harry Lane and several others from St. Stephen's Cemetery may have been broken due to human mechanical twisting (pers comm. Dale Serjeantson). The images seen below suggest that the type of fracturing among these bird bones tend to be columnar but on occasion smooth perpendicular fractures can be found on mid-shafts. The presences of these different types of fractures suggest there was a presence of multiple stressors and/or strains applied to these bones. While fracturing and fissuring is prone to happen during the cremation process, I also suggest that there is evidence of human-applied torsion to dry bone, resulting in these perpendicular and spiral fractures (see Figure 5.8).

Figure 5.8: A bird bone showing sign of cremation and possible non-pyre related fracturing (photo taken by author).

5.7.2 Evidence of rodent/carnivore gnawing

In addition to a near lack of cut/chop marks, it must also be stated that none of the cremated remains, neither human nor animal, showed signs of rodent, human or carnivore gnawing. From a theoretical perspective, this may mean that the body (of either the human or the animal) was protected from the environment prior to further ritual treatment. While it may be possible for fragments containing gnaw marks to be lost in the post-cremation collection of the remains, research suggests that signs of gnawing, much like pathological evidence, would have remained intact during the cremation process (Curtin 2008). The hypothesis that there was some sort of protection of the corpse against the natural environment is further supported by the lack of gnawing seen amongst the inhumation burials from the four sites used in this study.

5.8 Conclusion

The human and faunal material presented in this chapter highlights facets of research which were not considered in the original analysis of the material (see Niblett 1999; Stead and Rigby 1989; Roberts 1996; McKinley unpub.). While this material was found in mortuary contexts around the ancient city of Verulamium and as such should be considered separately from the interpretations of faunal remains found in the settlement areas of the same locations. The two data sets go hand-in-hand to create a larger picture of the human-animal relationships present at Verulamium. Moreover, the combination of research allows for interesting questions to be asked in future research about the relationship of the faunal material found in domestic or public, non-funerary, urban and rural contexts to those found in the mortuary record (to be discussed in later chapters). Common to zooarchaeology reports, authors tend not to record in detail the faunal material which is found in the mortuary record, and as such this chapter aimed at supplying a complete demographic dataset for both humans and animals. Additionally, it examined the funerary contexts in which the faunal remains were found in association with.

It was found that the faunal inclusions to mortuary record for the sites used in this study were comprised of domestic species of various ages and did not focus on any particular faunal age range. It is likely that these animals involved in burial rites would have lived in close proximity to the human community as the city of Verulamium contained its own livestock and may have been involved in primary and secondary production of goods prior to their death (see Stead and Rigby 1989). It is also likely that these species would have been well known to individuals of the higher and lower echelons of society as pets, gifts or working animals.

Unfortunately, there was not enough evidence to suggests that the choice for burial with a particular faunal species was not specifically related to the biological sex of the human individual to whom the grave belonged. Some evidence suggests

there may have been preference for certain animals in following humoral and elemental theory in so far as warm and wet versus cold and dry (Jones *et al.* 2016-forthcoming). There does, however, seems to have been a distinct preference for the inclusion of faunal remains in cremation burials compared to inclusion in inhumation burial rites. There were, however, exceptions to this with the rare inhumed individuals from Folly Lane who did receive certain species in their burials. The selection of inhumed faunal species, perhaps unsurprisingly, did not deviate from those species seen within the cremation rites.

After an in depth analysis, it was determined that the changes observed to the cortex of the animal bones suggest other events, such as cooking, were not responsible for the modification to the bones but rather exposure to prolonged burning at high temperatures congruent with cremation fires. Further bone evidence showed consistency of burning temperatures among human and animal remains, suggesting that either a selection of the animal (or possible the whole animal if particularly young) was placed at the same time on the same pyre as the deceased human. While the cremation fires were most likely responsible for the majority of the fracturing, there is some evidence which suggests that humans may have been responsible for some of the fracturing, particularly amongst avian bones, following the cremation.

A lack of evidence for animal gnawing suggests the deceased human and faunal remains were protected from scavengers and the elements prior to pre-cremation/secondary burial treatment of the body (to be discussed later in the following chapter). Despite the skeletal material producing lower bone weights than expected for the complete/ or near-complete collection of the deceased human remains, analysis showed that fragments from all major regions of the human skeleton were present. Additionally, a wide variety of skeletal regions were present across the various species found within the burial ritual, suggesting there was not a focus on one particular skeletal region for use in burial rites. This evidence for low numbers of individual of fragments per animal suggests that the deceased animal either was not whole at the time of cremation or that it was not important to collect

more than a few fragments from a particular animal to be used in secondary burial rites. Additionally, the lack of stratification layers within the urns suggests both human and animal remains were placed simultaneously within the vessel. It remains uncertain if Romano-British individuals involved in the collection of the deceased would have been able to distinguish human from animal fragments or if it even mattered. The combination of human with animal within the burial procession and ceremony seems to have occurred as early within the rites as the placement of the corpse on the cremation pyre suggesting some sort of homogenisation between the human and faunal individuals was taking place as a breakdown of the physical differences in the two (or more) entities was about to occur. Themes discussed here will continue to be debated further in the following chapters as I examine the possibilities of whether faunal remains were seen by the occupants of the grave as food products or had other meanings which differed from live to death.

6 Chapter Six: Animals in the Romano-British period

In general, human and animal remains found together in burials occupy very little space in specialist site reports, as well as in larger volumes regarding sites and their interpretation. Authors such as Jessup (1954, 1959); Stead (1967); and Anthony (1968) all tend to allocate only a line or two in order to discuss possible explanations for the existence of co-burials and delve no deeper into the reasoning regarding particular hypotheses behind their occurrence (i.e. remnants of food, religion commemoration, etc.). Nor do they address the difference in the number of human burials containing animals from site to site.

More recent authors such as Philpott (1991) and Pearce (2013), whose research includes a greater focus on the quantity of grave goods in respect of cultural patterns, tend to allocate more space in detailing the representation of the animals in a quantitative sense, usually offering short and simple explanation for their presence. However, these explanations tend to be given as fact, without much, if any, supporting evidence from contemporary textual sources - a viewpoint MacKinnon (2001, 2007) stresses as an important aspect for human osteologists and zooarchaeologists who wish to advance deeper relations between archaeology and Classics. While modern 21st century humans do admit to having bonds with animals, most people including scholars would be quick to recognise and label faunal remains in most contexts (including burials) first and foremost as a food source. Thus it is not surprising that the most widely accepted scholarly position taken on the presence of animals in human burial is as representations of food and/or acting as food items (e.g. Toynbee 1971; Philpott 1991; Hill 1995a; Morris 2011).

Explorations into the concepts of humanity and animality have been pondered by humans since Classical antiquity (and before, but we do not always have written discourses outlining such). However, it has been more common among researchers to cite dialogues from the 1500 or 1600s in which we can observe a philosophical discourse being specifically geared at placing humans above and

separate from non-human animals. Many of Descartes works, for example, suggested that animals were closer to machines rather than humans as they possess bodies but not minds and therefore they are not capable of having the power of speech. Thus further proposing that animals are incapable of having thoughts or a soul like humans, which in turn prevents them from being equal to their human counterparts (Descartes' *Animals are Machines*, trans. Armstrong and Botzler 1993). It was this divide which allowed the development of the idea that culture was exclusively part of human nature but not vice versa. If asked it seems that many people around the world today would argue against Descartes' views of animals as not possessing feelings per se, however, it seems they would still incorporate animals within an idealised concept of nature and natural kinds of beings describing animal behaviour as automatic or instinctual rather than reactionary (Willerslev 2004).

The popular viewpoint of animals as so-called non-influencers, which has been constructed by modern interpretations of man's place within the world, is exemplified through archaeological interpretation of the human body as it has become understood as a site for culturally specific political negotiation and social disputes (see Thomas 1996; Yates 1993). While these sites are understood to have been manipulated by material artefacts it is rare to see researchers suggesting that animals have any influence over the actions of man, including the mode and method of burial (Fowler 2004: 12-16). I argue that this lack of concern regarding faunal social roles can be linked to the anthropocentric lens in which Western thought is based. This can be seen amongst many early nineteenth century anthropologists, including Charles Darwin, who wrote accounts of non-western societies as 'living like animals' or 'live little better than animals' suggesting that it is the destiny of humans to overcome a condition or living standard in which other animals are confined to (Darwin 1860: 216).

While Darwin used a dichotomy to measure the distance from savagery to civilisation, I argue it can also be interpreted as measuring the distance between what was considered to be wild and what is domestic and thus impact the way early

scholars interpreted the archaeological material and the profile of that culture. By definition, the domestication of something suggests that there is a notion of human control over the growth of the thing being discussed while wild versions of the same thing are out of control and need to be restricted or civilised somehow (Ingold 2000a).

Ingold's (2000a) paper, *From trust to domination*, further builds upon Darwinian thought by tracing the modern projection on ancient humans (specifically hunter-gatherers) as exploiters of their natural environment, where the eventual domestication of animals plays a greater part in how humans rose above other species as they "sought to bring control to an untamed world". I agree with Thomas' (1983: 35) suggestion that while alternative perceptions did exist, the dominant view within the early mediaeval Christian church, which was that "man stood to animals as did heaven to earth, soul to body, and culture to nature", heavily influenced how human individuals of the time period right up through the modern times placed themselves within the animal kingdom (as separate and above other animals). I suggest that it is this inner view of human animal-ness which shapes and cements how human experiences are interpreted and recalled in the human psyche. My argument can be supported by the fact that animality was posited as something inferior to humankind (something to be conquered and exploited) which led early modern Europeans to make efforts to maintain distinct boundaries between themselves and animals (Mullin 1999). According to Ritvo (1987: 3) it was only after Europeans no longer felt at the mercy of nature, when "science and engineering had begun to make much of nature more vulnerable to human control" that the concept of nature began to be viewed with affection and nostalgia.

Like many cultures, agriculture and animal husbandry were the basis of Romano-British economics thus creating the most basic human-animal relationship of consumer and producer. From domesticated animals people obtained meat, milk, eggs and material for clothing (Gilhus 2006). Roman authors such as Pliny the Elder and Columella (4 A.D. - 70 A.D.) describe the care and management of oxen, bulls and cows, horses, mules and asses, sheep, goats, pigs, dogs, as well as different

types of birds and fish both on farms and in private homes (*On Agriculture*). These sorts of descriptions and essays on the species present at the time of the writings allow modern archaeologists to gain an understanding of the degree to which certain animals would have been seen and interacted with in the living human community. Moreover, it highlights which species were not present, not as frequently encountered or left out due to their lack of uniqueness and thus questions of an animal's cultural significance come to mind.

With that being said, this path of research is far from perfect. The authors most frequently accessible from this time period, I would like to highlight, were Romans from Rome whereas the material culture under scrutinisation in this study is from Roman Britain. Importantly, it has been acknowledged that the writings from this period portrayed native populations as barbarians (See Tacitus, *Agr.*, 11: '…one must remember we are dealing with barbarians') thus depicting Roman Britons and most likely the species commonplace among that culture as inferior under Roman superiority. Furthermore, such texts originate from a time when literacy was a marker of the typically gender-specific male upper-class, thus linking the written word with seats of power and control. As such it should be pointed out that these writings are only able to offer an insight into the male Roman elite point-of-view not the Romano-British perception of the natural world around them, including the various faunal species they would have encountered and perhaps shared their living space with.

6.1 Animals as representatives of food

To begin the discussion of human-animal relationships it makes sense that we begin with not just food but control of that food. DeFrance's (2009) paper, *Zooarchaeology in complex societies: political economy, status, and ideology*, attempts to generically discuss the motivational factors for the interest humans, particularly those with elite status, have with animals. In this work, the author fails in the sense that he approaches the human-animal relationship more as a human-object interaction, justifying certain actions from a human-centric viewpoint without

considering the agency and power species have over human populations. However, DeFrance (2009) does capture the Roman sense of ruling over the natural world and the objects (in this case the animals) within that world. It is certainly true that complex societies, such as the Romans, possessed hereditary inequality within the structure of their human communities which in turn played a significant role in the structuring of human-animal relationships/interactions and thus affected how their material remains were found and preserved in the archaeological record. How a certain species functioned in various capacities within the community would have led to their overall placement on a scale within their communities in regards to when they should be used to provide food, create commodities (which can denote status for both the human and the animal from which the commodity derived), and whether or not they were to serve as ideological symbols of power.

Members of the elite (human) community often gained and maintained their power through specific displays of control, particularly by the regulation of certain animal species or human groups (typically distinguished as lower in status ethnically/racially). Moreover, the consumption of certain animals may be reflective of the community, household, or personal wealth and/or status of the individuals due to the cost incurred with gaining access to certain species/ cuts of meat. Or, perhaps there are mandated regulations about who has the right to access certain foods. Generally speaking, in order to increase their own personal wealth and that of the society, elites oversaw economic activities that were designed to generate capital or finance for the society (DeFrance 2009: 107-108). The patterns coming up in the burial material from St. Albans (as discussed in the previous chapter) included very specific sets of species which were closely related to the food production favoured in the Roman period (discussed later in Chapter 10).

Occupation specialisation resulted in large segments of the population being no longer involved in their own subsistence, which resulted in the need/reliance on others for the availability and distribution of food. This would have been particularly true of individuals whom were separated from their own kin and system of local production in order to perform state-required duties or servitude.

These sorts of changes to the structure of human social relations could in turn affect the relationship created, not only between humans but also humans with animals. One group for which this may have been true is the Roman army as it had a strong iconographic relationship to specific animals associated with the cult of Mithras, whose followers latched onto personality characteristics of the deity that embody ideals of aggression and power (Clauss 2001). The associations become clear when understanding that the cult's protagonist is frequently depicted in the final moments before the sacrificing of an aggressive bull, whom he has hunted and overpowered much in the same way the Roman soldiers were the driving force behind the conquering of unknown and often aggressive lands and cultures all the while promoting the use of cattle throughout Britain as an agricultural tool and source of food (DeFrance 2009).

MacKinnon (2007: 497) highlights that while diet is influenced by many factors, what one consumes can be a good indicator of attachment to familiar tradition or of the desire to broaden the palate and accept ethnic dietary diversity. Pigs were generally considered the "choicest" of all the domestic meats consumed during the Roman times, as it was ingested in a multitude of forms by the rich and poor alike (MacKinnon 2001: 649). In following the humoral system (discussed later in subsection 6.2), Galen writes in support of the consumption of pigs on behalf of adolescent humans as it was considered the 'species which were at the peak of their lives were of moist temperament, whereas cows should be eaten before their peak, as beef is far drier in temperament than pork, as an adult male compared to a boy' (Grant 2000: 154-55). Moreover, Galen was of the belief that that all animals naturally in possession of a drier temperament were more moderate when young, whereas 'moister' animals shift towards a more balanced temperament as they age. Therefore, younger individuals of any particular species would be better for the digestion than members which were fully grown (Grant 2000). By comparison, goat meat was considered to be worse than beef and so on. Lambs, on the other hand, have moist and phlegmatic flesh but the flesh of adult sheep is even more excrementitiously and unwholesome than other species (Galen trans. Grant 2000).

Galen's writings also dictated females from males of individuals within certain species, with nanny-goats combining unwholesomeness and bitterness. He-goats are worst for wholesomeness and digestion; next in order come rams, then bulls (Galen trans. Grant 2000: 154-55). So, in this case following DeFrance's (2009) work, while the Roman/Romano-British elite did control food resources to some extent, the classical writings and mind set regarding wholesome versus non-wholesome species also set up interactions and the bonds of the human-animal interactions explored later in this chapter.

6.1.1 Food and its place in funerary ritual

With food taking such a central presence in the celebration/commemoration of big life events, including funerals, it is not surprising that many Westernised archaeologists have described the presence of animal remains in human burials as food items. In many ethnographic cases, funerary feasting acts as a platform in which the surviving community not only can redefine the social order of the community (especially if the deceased was a member of the ruling elite) but also creates mnemonic links between the deceased and the living as a way of remembering the ancestors (Hamilakis 1998: 115-135). The author further highlights the connection between the finalisation death brings with the process of eating through the realisation that the deceased, which were once living beings, have now been consumed by death, in a similar way that food vanishes as it is consumed by the living people attending the event (Hamilakis 1998: 115-135). As members of the funeral party eat they are not only consuming food but they are incorporating themselves within a community where food acquires an active role in embodying humans which is defined by what, where and how they eat it. The author goes on to suggest that in this sense death is simultaneously in opposition of the food as the consumption of food has the ability to sustain life both biologically and socially for humans and animals, while the modern interpretation of death undoes this in a sense as there is no need to sustain oneself after death among most westernized cultures.

The concept of consumption, however, may not be the only reason for the presence of food items in burials. Food and drink can add to the broader sensory experiences created within the community, particularly memories created during mortuary rituals that inherently are accompanied with other social aspects aimed at influencing remembrance of the deceased (Williams 2004b). Parry (1985) reminds us that in many societies, the flavours, aromas and spices given off by food can create important symbolic connotations linked to the ritual stage of the funeral. The experience of food through all the senses and its incorporation into the body, much like the experience of the live animal, are often metaphorically seen in the incorporation of the dead into social memory (Battaglia 1990, 1992; Eves 1996; Foster 1990). Additionally, the textures of the food and their containers may be of significance to the evocation of earlier funerals. While substances associated with the body are often regarded as dangerous and polluting, the touching and incorporation of food intended for sharing (either with the survivors or the deceased) and the handling and interring of objects linked to such funeral feasts emphasize their intimate links with the corpse.

I believe Williams' (2004b) suggestion of a connection between cinerary urns, the body and food poses interesting questions of interpretation as he metaphorically links the process of cremation, in which the dead were, in a sense, cooked or consumed by the flames and therefore likened to sacrificial offerings or prepared meals. While feasting is a prominent theme seen among grave monuments, I am not sure that there is enough evidence that Romano-British people did view cremations in such a manner. However, Hamilakis and Sherratt (2012) question the very definition and Western interpretation of the word consumption. The authors highlight the fact that consumption is often understood as the act of consuming calories, yet this is not to say the same definition was the same across time and space. Consumption in performance (or socially motivated consumption) is an essential part of how people define themselves socially in terms of their identity and image, both as individuals and as groups (Douglas and Isherwood 1978).

While not directly stated, ancient writings do support the hypothesis that Romans believed objects could follow the deceased into the afterlife. Reference is often given to the presence of coins which are popularly thought to have been buried with individuals as payment to the ferryman for crossing the river into the 'Otherworld' (Toynbee 1971). Some scholars (Alcock 1980; Lauwerier 2002) use this concept to suggest that food was also capable of making the journey to the 'Otherworld' and that the presence of food in the afterlife would have stopped the deceased from becoming lost on their journey and returning to the world of the living where they would cause trouble in their search for food (Alcock 1980; Lauwerier 2002).

Through the preservation of ancient writings, various statutory regulations have survived and provide scholars with a window into the understanding of cultural values which may have influenced the traditions surrounding Roman death and burial. According to Cicero, only when a pig had been sacrificed was a burial site legally considered to be a grave (Cicero, *De Legibus* 2.22.57). Additionally, he writes that only family members could part take in certain rituals including a funerary feast, known as *silicernium*, which was eaten at the grave in honour of the dead. Following the feast of *silicernium*, a meal known as *cena novendialis* was also eaten at the grave side after a nine-day period, to end the mourning phase, and was marked by the pouring of libations (*manes*) on the burial (Tacitus, *Annals* vi, 5; Petronius, *Satyricon* 65). Contemporary records also describe a tradition of continuous visitations to graves, after the initial mourning period. It seems that during these times the deceased may be included in the celebration of life events by partaking in a funerary meal by the tomb—particularly on the deceased's birthday and the annual festival of the dead. It has been speculated that during these grave-side feasts, a portion of food would be set aside for the deceased individual and that in some way they would be involved in the eating, as food and perhaps drink could be passed through the pipe and directly into the burial (*profusio*) (Toynbee 1971). There, however, has not been any actual evidence of these pipes discovered in

Roman Britain, and its existence is disputed elsewhere. Toynbee's work, among others, will be discussed and challenged in further detail in Chapter 11.

Other evidence for the importance of feasting as associated with the dead, however, is provided by depictions on tombstones. Hope (1997) argues that tombstones, more specifically their imagery, serve to commemorate the past and promote the future. Following this, it is important to remember that social memories in the ancient world were created and communicated through a variety of media (Hope 2003), including modes of ritual action, visual displays (i.e. cremations) and texts. Connerton (1989) pushes this further as he describes a sort of inscribing such memories into objects but also incorporating memories through those events carried out through bodily practices by participants and onlookers during particular events. Again, however, there are no tombstones present in Britain to which these discoveries in mainland Europe can be compared to.

6.2 Legal contracts between humans and animals

One of the more controversial subjects that researchers can easily observe from contemporary writings are the interactions between humans and their property (Gaius, *Institute of Roman Law*; Pliny, *Naturalis Historia*; Cato, *On Agriculture*; Varro, *On Agriculture*). While notions of slavery and servitude were rife throughout early history, it also becomes clear that in some cases what comes across as basic interactions between a human and their property can also be interpreted a very humanistic light. Rather than always viewing the indentured human group as shifting down in status to be like animals or property, it can also be true, that in some instances animals were elevated, in some sense of the word, to be considered as persons (see Vivieros de Castro 1998; Conneller 2004; Willerslev 2004). Evidence for this can be found in Lucretius' writings regarding men's protection or guardianship (*tutela*) which ought to be given to animals viewed as useful to men (*utilitas*). If viewed as not being useful, Lucretius described them as the enemies of domestic animals and of humans. This category mainly can be interpreted as including wild species or perhaps animals which prey on others (i.e. some birds,

wolves, etc.). Lucretius puts forth an agreement of mutual benefit between domestic animals and humans in which meat, clothes and other services are given to the human upon the animal's death in exchange for food and protection during the animal's life (Lucretius, *De Rerum Natura*, 5.860–1).

Interestingly, some ancient authors group certain animals, most often cattle, together with slaves and servants. The jurist Gaius (130 A.D. – 180 A.D.), in his discourse on Roman law, stresses that the law "treats equally our slaves and our four-footed cattle which are kept in herds" (*Institutes of Roman Law*, 9.2.2.2). Other authors such as the elder Cato (234 B.C.– 149 B.C.) and Varro (116 B.C. – 27 B.C.), who precede Gaius and Columella, are also known for their writings on agriculture which associate slaves and cattle as being from the same class (see Cato, *On Agriculture*, 2.7; Columella, *On Agriculture,* 1.6.8; Varro, *On Agriculture*, 1.17.1). It could be that this mind-set of equality in law stems from the overlapping of roles for working animals, the poor and slaves, who often engaged in the same sort of work. If one was too poor to be able to afford to buy animals to help with manual work they would have had no other option but to carry out the labour themselves, like beasts.

The idea of a concept of a contract between humans and animals also permeated the practice of animal sacrifice. Pliny's writing stressed that mutual consent was an important concept to the people partaking in the ceremony so much so that depictions of the event were carefully presented in a manner that portrayed the animal as being led by a slack rope, not dragged by force, to the altar as any show of resistance was considered to be a bad omen (*Natural History*, 8.123). Imagery depicting birds kept for divinatory rituals were often shown as being guarded in cages and were well looked after (van der Horst 1998). Whether this sort of treatment happened in reality is unknown, but the fact that the Romans went through the trouble of portraying the human-animal relationship in such a way suggests there were emotional and ethical considerations for the treatment of non-human species.

One of the oldest 'contractual' contexts for human-animal relations, the hunt, was a fundamental part of the Roman life, be it in the amphitheatres of the urban provinces or in the game parks of the rural elite. Hunting often took place in constructed landscapes or liminal spaces, where civilisation and wilderness overlapped, where imperial ideology and religious attitudes towards the natural world could be played out (Gilhus 2006: 32). In some ancient civilizations social contracts also dictated the relationship between hunter and prey. Ethnographic examples of hunter-animal relationships can be particularly applied outside the Romano-British Empire (Conneller 2004; Willerslev 2004; etc.) offerings of the animal are presented to the hunter by a master and that in order to be offered more later on one must take what is presented now (Descola 1994; Nadasdy 2007). However, these killings are not meant to deplete but rather produce future success of the faunal species. Russell (2010: 8) describes the belief and danger in that too much success in hunting would result in accumulating too many animal souls which then could result in the 'animal master' to claim their share by causing death among the hunter's own family. Additionally, the Yukigar assigned a female sex to this 'animal master' and thus added further danger of too much hunting success in which the master would fall in love with the hunter and take his own 'spirit' to be with her thus causing his own death. While some may suggest this to have been similar to a more native outlook in Iron Age England, the Roman attitude towards the land and the animals in it definitely differed.

When examined as living animals, the Romans classified wild animals as *res nullius*, or the property of no one, as such according to Roman laws of acquisition (created during the founding of Rome in 753 B.C. and used beyond the fall of the Empire in the fifth century A.D.) these wild animals could become the property of the person who took physical possession of it (the act of *occupatio*) (Crook 1967). In this sense, hunting became an extremely powerful expression of dominance over land, and particularly of a 'wild' nature. Furthermore, surrounding the death/killing of the animal, there is a strong hint in the vernacular literature of the time for a close correlation between the hunter, the hunted and the divine world,

with the hunted often taking the form of a wild boar or stag. Hunted animals, in the context of these myths, were often portrayed as messengers of the 'Otherworld', and often the means by which humans, either directly or indirectly, were brought or connected in some way to the underworld (Green 1998: 164).

Hunting and fighting scenes are also common motifs to be found on funerary monuments, often including lions and dogs hunting but also cockfighting and birds pursuing their prey; storks and eagles attacking snakes (Figure 6.8) and smaller birds chasing butterflies and lizards. While individual representations of birds and dolphins placed in odd corners of pediments have often been interpreted as symbolic, lions, which usually placed a more central part of the scene, were usually represented leaping through acanthus leaves and chasing or confronting other animals in friezes above inscription panels. Strong (1915) has suggested that running lions represented the element of fire (or the concept of purification) and when shown confronting a bull may allude to the earthly tenement (Matz 1882). While the lion may not actually represent the element in a physical state, its presence can be interpreted as an 'agent of death' in this sense. It has also been suggested that the popularity of the lion and bull motif may be associated with the Mithraic cult (discussed later in Chapter 9.2). Toynbee (1973: 220-22) on the other hand interprets the lion as a symbol of the ravening power of death and of a man's victory over it (in reference to the lion as the prey rather than being depicted as the hunter).

6.3 Faunal participation in medicine

In addition to being used for work, certain faunal species have been included as active participators in health and healing of the Roman community. Ancient Roman magico-medical cookery was based on ingredients from all over the empire, taken from wild and domestic animals. In his series, *Natural History*, Pliny the Elder (23 A.D. – 79 A.D.) describes Roman medical recipes in detail calling for the use of all sorts of animal products including fat, blood, internal organs and bodily waste.

For example, bladder stones were thought to be relieved by the urine of a wild boar or by eating its bladder (*Natural History*, 28.60). Pliny the elder described the rationale behind these procedures as a relationship between diseases and remedies that was based on the idea of a general system of sympathies (*concordia*) and antipathies (*discordia*) in the world. The author argues for the attraction and repulsion that exist between everyday things. Today we know this as the system of humours. Interestingly, certain animals of certain ages were ranked according to the humoral system (Spenser 1984; Scully 1995). The young often being associated with wet and cold, while the older were associated with the hot and dry. In humoral terms each animal corresponds to a discrete temperament: fish and pork were both considered 'moist', dairy was perceived as comparatively wet regardless of the animal it came from, whereas beef and mutton were seen as relatively dry, although younger animals (veal, lamb, and kid) were slightly moister (Spenser 1984; Scully 1995).

Associations			
Humour (fluid)	Associated season	Associated element	Normal "Complexion"
Blood	Spring	Air	Hot and wet
Phlegm	Winter	Water	Cold and wet
Black bile	Fall/Autumn	Earth	Cold and dry
Yellow bile	Summer	Fire	Hot and dry

Table 6.1: Humoral and elemental associations (Ritter and Hoffman 2010).

His system of humors implied relationships involved either the principle that like cures like (*similia similibus*) and opposites cure opposites (*alia aliis*) - essentially the humour system of keeping the body in balance (Hanson 1998: 72-3). Bites and diseases caused by one animal could be healed by ingredients taken from a similar or opposite animal depending on the individual case (Pliny, *Naturalis Historia*). For example, harm done by the crawling creatures of the earth was cured by ingredients taken from the flying fauna of the air. Protection against serpents and their bites was taken from vulture, chicken, dove, swallow or owl (*Natural History*, 29.24–6).

In addition to medicine and magical potions based on animal ingredients, animals were also used as intermediaries in cures. A disease could be transferred to an animal and taken away by that animal. Often in these cases when the animal in question died the disease also 'died'.

According to Galen (*Galen on Food*, Book III) oral consumption was just one way in which humors and elements could be exchanged and absorbed. Traits could also be transfer by touch. Noisy, aggressive and sexually violent cockerels and roosters may make sense for traits people (particularly young male warriors) are trying to either exude or avoid given the percentage in which they occur in any given assemblage. Many cultures at some point within their pursuits for medical treatment have viewed all aspects of human life, lifestyle and behaviour, to a greater or lesser extent, to be perceived, explained or dictated by the principles of the four elements (earth, air, fire and water) with their corresponding humors (melancholy, sanguine, choler, and phlegm) (Glacken 1967; Arikha 2007; Grant 2000).

Elemental theory guided the lifestyle practices of the culture, such as dietary preferences farming, medicine, and interpretations of the human life-cycle and overarching cosmology. Plato (429? B.C. -347 B.C.) developed the workings of the four elements, first described by pre-Socratic philosopher Empedocles, conceptualising the cosmos in the terms of the four elements variably combining to create all physical matter (Lang 2007; Bostock 2008). Aristotle (384 B.C.-322 B.C.) formally connected the changes of state to the elements and began their association with other qualities: fire as hot/dry, air as hot/moist; water as cold/moist, and earth as cold/dry.

Out of association between the human body and elemental theory grew the four humors and corporeal fluids- blood (air), yellow bile (fire), black bile (earth), and phlegm (water) (Jones 1923). The humors were not fixed, but rather could be found in varying quantities within different individuals according to personal character, sex (men being comparatively hot/dry and women being cold/wet), and biological age. Moreover, according to humoral theory, the nature of the human body changed over an individual's life-course. Infants were said to be born warm

and moist as a consequence of exposure to the fluids in their mother's womb (Jones *et al.* 2016—forthcoming). The end of infancy (around the age of 7yrs) was said to make them progressively drier, whereas old age made them wetter and colder in a sequence mimicking the seasons (Jones *et al.* 2016-forthcoming). As such infancy was equated with Spring (warm/wet), adolescence and youth with summer (warm/dry), maturity with autumn (cold/dry) and, finally, old age with winter as individuals grew colder and wetter.

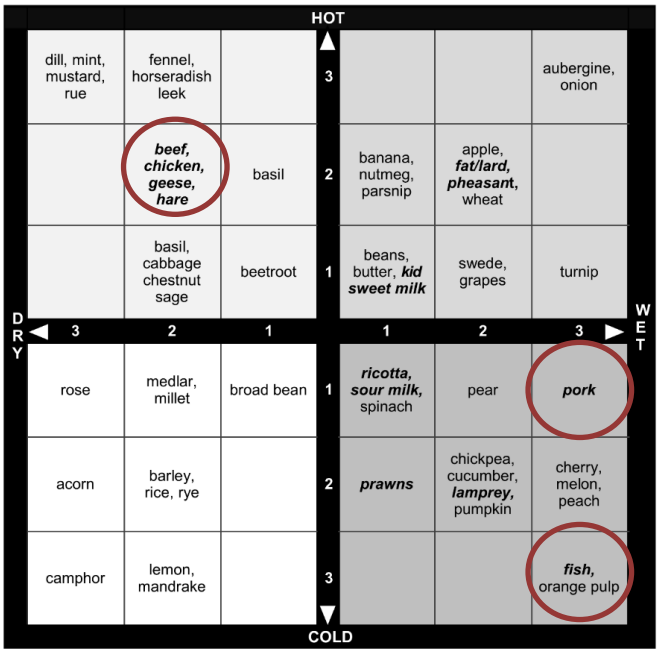


Figure 6.1: Highlights place of cattle, pig, chicken and fish on the humoral/elemental scale (Jones et al. 2016- forthcoming).

Humors were also said to have been acting on shorter timescales were daily they could be affected by the qualities of foods consumed as different plants and animals were also thought to possess their own humoral make up or 'temperament' as shown by the scale in Figure 6.1 (Jones *et al.* 2016- forthcoming). Consequently, plants, animals, objects and entire landscapes were attributed with a considerable amount of 'agency' that lent itself to their ability to alter human characteristics and well-being. Associations of sheep dung warm/dry with wheat-growing on cold/wet

clay-lands; and cattle dung warm/wet with barley-growing in the cold/dry sand-lands (Thirsk 1984; Sykes 2007; Banham 2010; Jones 2012).

While some scholars (Williams 2004a, b, 2010; McKinley 2008) have acknowledged the importance of a corpse's transformation by fire in cremation rites, there has also been an overlooking of the elemental ideas surrounding the practice. For Hindus and Buddhists, cremation offers a quick reduction of the body to its elements. Jones *et al.* (2016 -forthcoming) highlights that the rite of cremation can be seen as possessing all of the elemental dimensions: the body (representing earth) is washed with water or perhaps other fluid, displayed on the pyre (air), before being set alight (fire).

6.4 Animals as divine interceptors and foretellers

Not only were certain species of animals involved in the Roman society as workers and participated in medical practices but they were also consulted as foretellers in the outcome of future events. Similarly, to their use in medicinal traditions, the species could be of use both alive and dead. Ancient Greek author, Cicero's *De Divinatione* (106 B.C. – 43 B.C.) preserves rituals which involve the use of chickens by Roman oracles to discern omens, both when the animal was flying and feeding. The hen supposedly gave a favorable omen when it appeared from the left (*De Div.* 2.26), like the crow and the owl. According to Cicero (*de Div*. 2.34) the oracle could use any bird but normally only chickens were consulted. Cicero also described the conditions in which they were kept when the animals were to be used for such purposes. The author states specific chickens were cared for by a *pullarius*, who would open their cage and feed them pulses or a special kind of soft cake when an augury was needed. If the chickens stayed in their cage, made noises, beat their wings or flew away, the omen was bad; if they ate greedily, the omen was good. This sort of anecdote justifies the notion that certain individuals within a species were cared for and received special attention from certain groups of people which differed from the rest of species population within a communal group.

Figure 6.2: An ancient Roman sacrifice showing part of the suovetaurilia ritual depicted in a Tiberian relief, ca. 14 A.D. (Louvre Museum).

Other species of animals were also used in ritual events. Cato the Elder's *De Agri Cultura* (On Agriculture) (234 B.C. – 149 B.C.) preserves the events surrounding the act of the *suovetaurilia* ritual seen above in Figure 6.1. The *suovetaurilia* or *suovitaurilia* was one of the most sacred and traditional rites of Roman religion: the sacrifice of a pig, a sheep and a bull to the deity Mars to bless and purify land (*Lustratio*). If favorable omens as a response to the sacrifice were not forthcoming, the landowner was instructed to redo the sacrifice and say the prayers again. If only one or two of the omens expected after the three sacrifices failed to appear, the landowner was instructed to offer an additional swine (sections 135-141). The nature of the expected omens is not given by Cato; however, they were likely determined by the art of *haruspicy*, the examination of the entrails, and particularly the livers, of sacrificed animals for divinatory signs. The incorporation of these domestic species in such a ritual may become important to the understanding of burials rites seen in the St. Albans area (discussed earlier in Chapters 3 and 5).

6.5 Animal representations

While the focus of the human-animal relationships in this thesis has mostly been on the real and physically present remains of the animals, it must also be stressed that the ancient Romans also had a strong mythology heavily based on the entwining of human and animal behavioural characteristics and imagery.

In addition to their economic value, certain animals in the Roman culture also possessed certain desirable characteristics or magical qualities which could aid members of the community to which they belonged. This perception in turn may have elevated the status of certain animals above others. Aggression, is one characteristic in particular that was sought after in young boys and often associated with young male pigs because they will fight to defend their sows or over food much like male dogs will (Clutton-Brock 1981: 74). In life, bulls can also possess aggressive behavioural tendencies and as such became an important animal for the warrior cult dedicated to Mithras. However, only a few of the burials discussed here contained cattle bones and none contained any that could be identified as bulls for certain. Therefore, it is likely that the Mithraic cult was not of great importance in the Verulamium area.

Pigs, which were common to the graves studied in this thesis, were also likely to have been associated with virility due to their breeding cycle which not only made them abler to withstand frequent culls, but also set them apart from other faunal species as they produced more offspring quicker than others in a single season. In later centuries, as they became more common, chickens would have fulfilled a similar role to that of pigs as they could be kept in small numbers, were an efficient means for getting rid of household refuse, and were able to produce eggs and offspring at frequent and regular intervals. Both virility and fertility were important for sustaining Roman culture. A female's position in life was dominated by her role of mother and carer. Therefore, it is not surprising those animals, which embodied several of these highly-sought after characteristics, became symbols in the Romano-British culture.

Interestingly, the animal species which have been identified as partaking in the co-burial rite are also among the species used for the ritual of *suovetaurilia* in which the Roman deity Mars was honoured (See Chapter 6.2). Belayche (2007: 268, 277) states that ancient Greek and Roman religious cults distinguished between animals that were sacred to a deity and those that were prescribed as being the correct sacrificial offerings for the god or goddess. Wild animals might be viewed

as already belonging to the god to whom they were sacred, or at least not owned by humans and therefore were not theirs to give (see Chapter 6.2 for a discussion on concepts of ownership and animals). This concept might help explain the lack of wild species in the St. Albans graves; although some wild species are found in burials outside the Hertfordshire area (see Chapter 9.3).

Mercury, messenger of the gods, is often depicted with a cockerel, which is also considered the herald of the new day. Another emblem connected to Mercury is the tortoise shell; for his associations with inventing the lyre (Green 1998: 197). Another animal which has received attention by ancient peoples were boars, which became synonymous with various Celtic deities as well as the Roman god of war, Mars. As symbols of warfare and aggression, boars were often depicted with their dorsal ridge erect on weapons and armour denoting the state of aggression.

The Roman military, in particular, were known to have drawn heavily on animal imagery for a variety of different reasons. Animals were often used in insignia which were held high by soldiers during battles to indicate the location of commanding officers. Additionally, these images are also thought to have given reassurance to the Roman legionaries who served under such emblems (Gilhus 2006). The importance of such animal emblems can be said to have started as far back as the foundation myth of Rome itself. From the beginning of the legend, Romulus and Remus encounter animals in very particular ways. As time progressed, the Romans began to associate the she-wolf (known for her fierce spirit) with the cult of Mars, the Roman god of war, and thus seeing a wolf before a battle was taken as a sign of forthcoming victory (Gilhus 2006).

Figure 6.3: She-Wolf with Romulus and Remus, bronze, c. 500 B.C. - 480 B.C. (Capitoline Museum, Rome).

The legend of the she-wolf and brothers (see above), however, is not the only myth depicting a nurturing human-animal relationship. Other myths/legends such as the doe with Telephus (the son of Hercules) and the goat, Amalthea, who suckled Dionysus (Davies 1978: 218) are known to have also been present during the height of the empire and can be seen adorning many funerary monuments. Schauenberg (1966) suggest this ideology alludes to the city of Rome itself and may act as variations of the founding myth. Other scholars, however, interpret the motifs as references to the concept of *urbs aeterna*, or a sort of eternity and/or hope of something after death (Davies 1978). Viewed in an entirely different light, Rawson (2003) suggests these motifs refer to mother-love and (particularly in cases where only one child is present) may reference the deceased as being one of the two brothers. Davies (1978) highlights this motif as essentially representative of legendary children, who were cast out by their true parents for some reason, and were raised instead by animals. Interestingly, these animals are representative of wild species – wolf, deer, and goat. It may be significant, then that Davies (1978: 218-19) recognises (through monument inscriptions) that these motifs tend to be present on commemorative objects for deceased slaves or freedmen, who in many cases may have been brought up by people other than their own families and/or away from their homelands to be brought up in an 'adopted' Roman society.

Figure 6.4: Mosaic of Orpheus taming wild animals, Edessa (Şanlıurfa of modern day Turkey) circa 194 A.D. (The Dallas Museum of Art, USA).

In addition to being present in foundation myths, animals have also been known to fill a wide variety of roles. Many stories use animals as the protagonist for how things got to their current state or how animals acquired their appearance and/or characteristics. These stories may include the creation of the world or the bringing of fire, tools, or farming skills to humans. Other stories serve as warning for what may happen if you are found to be misbehaving. Ovid's *Metamorphoses*, for example, is a collection of Greek and Roman legends about mortals whom the gods turned into animals and plants for various misgivings (See Figure 6.3). Additionally, Classical literature contains numerous references to particular animals in both a zoomorphic sense where humans take on the characteristics of particular faunal species as well as gods physically transforming their body to morph into another creature for disguise. As such, numerous species found in real life became associated with a particular spirit/god/goddess in the pantheon. For instance, the god Mercury has three sacred animals, the rooster, the ram and the tortoise. Mars, the god of war, is often associated with the horse, and Neptune can sometimes be associated with the bull (Gilhus 2006).

Figure 6.5: Roman sculpture depicting an eagle with a snake (circa 1st century A.D.) - found in London 2013 - MOLA).

Cattle, more specifically male bulls, were also known and associated with power, virility and aggression. According to Green (1998), the force of this animal was perceived positively by native British groups and was used as the image of fertility and benevolence. It can be seen as fighting on behalf of mankind against negative forces such as disease and death. While the animal itself does not seem to be associated with any one specific deity, it does show up amongst a variety of cults including the cult of Mithras and the sacrificial practice of *suovetaurilia* (discussed earlier in this chapter). Sheep, particularly adult rams, became associated with virility/fertility in connection with the Roman woodland deity Faunus. While discussing the association of animals with deities, it is also important to recognise certain members of an animal species, or perhaps dictated by the ages of individual members of the faunal species become important to certain human groups for their distinction based on age and biological sex of the animal and corresponding biological sex and/or the socially constructed gender of the human group.

Perhaps in connection to the mythology of the period, scholarly interpretations of non-human burial materials are often tailored to fit into the sense of caring for and/or remembering the dead. A human individual's place within the Roman world was negotiated according to their biological sex, age and

socioeconomic status. During this period, Roman society viewed the adult male body as the ideal physiology, above those of women and children who were regarded as being incomplete and therefore, of less value (Foxhall and Salmon 1998; Flemming 2000). The emphasis of adulthood was crucial, as children were seen as incomplete beings that were transformed through the life course into adult beings by various social and religious rituals (Rawson 1986, 1991).

Gowland and Redfern's work (2010) reveal that Roman rituals may have been divided based on social gender and/or biological sex and furthermore, particular social prescriptions were subject to regional and temporal variation. As such some authors argue that the presence of certain animals in burials may mark gender differences. Brothwell (1979: 239-44), for instance, discussed the presence of domestic chickens at Lankhills as possibly being a rite afforded to both men and women, whereas other researchers may note the occurrence only present in female graves of different regional groups. At Skeleton Green, for instance, 36% of all human cremation burials were found to include animal remains. Of which it was determined that cattle were given to males, birds (including chicken) were restricted to females and sheep were afforded to both.

Figure 6.6: Bronze statue depicting Mercury with animals (ram, cockerel, and tortoise) from Verulamium burial circa 1st century A.D. (St. Albans Museum).

6.5.1 Faunal roles in objects and art

Much like today, the role of art in the Late Iron Age and Romano-British periods was meant to capture the imagination of those who encountered it. Faunal imagery often adorned hilts, sword scabbards and shields as well as other items for personal adornment such as brooches, necklaces and rings. Additional auspicious decoration could be seen within mosaics and murals which decorated the various spaces people would live and work in. Often associated with higher class individuals or families, these images were meant to make statements to others across all classes.

The *Torrs chamfrien* (seen below in Figure 6.6), a controversial artefact dating to the Late Iron Age, not only conjures up images of a horse (its purpose is thought to be a head covering for horses) but other species as well (albeit controversial for its purpose, interpretation of images and time period to which it belongs). The removable horns are reminiscent of sheep or goats while the terminal ends of the horns, shaped to resemble birds, encourage the viewer to acknowledge the relationship avian species have with the sky. Scholars, whose research focuses on the Late Iron Age, often suggest birds became a 'popular' image to display as they were the only branch of the animal kingdom to move between the sky and the earth and as such could have been seen as intermediaries with the divine (Brailsford 1975: 14-18; Stead 1985: 41; Henig 1995: 18). It has been questioned as to whether or not this view of bird species was carried forth throughout the Roman occupation of Britain. Additionally, authors have suggested that horns were seen as symbols of power and vitality. The embodiment of all three species, therefore, could suggest the artefact or the event in which it was used was something quiet special.

Figure 6.7: Torrs chamfrien (National Museum of Scotland, Edinburgh).

Horns can be interpreted as obvious representations of aggression due to their ability to inflict pain and destruction. While horns are not sex-specific to all species, they tend to symbolize the pugnacity displayed by male animals, especially in rut, and thus virility and fertility in general (Green 1998: 234). On occasion Mercury can be found depicted with horns but eventually the *petasos*, or cap with small wings sprouting becomes present. Green (1998) suggests there may be a deliberate vagueness between whether the image shows horns or wings. Interestingly, faunal material deriving from horned animals such as cattle and sheep, did not have an overwhelmingly high representation of horns or horn cores in the burial assemblage. Noticeably, however, when cattle were present the skeletal fragments found often originated from the skull (See Chapter 5.3).

Figure 6.8: Pan teaching a shepherd to play the pipes, copy of sculpture by Heliodorus ca. 100 B.C. (Naples Museum of Archaeology).

Figure 6.9: Ram-horned Jupiter Ammon, 1st century A.D. (Museo Barracco, Rome).

Figure 6.10: votive stele portraying Celtic god Cernunnos between Apollo and Mercury, circa 100 A.D., from Reims, France (Museo della Civiltà Romana).

6.6 New animals and their place in Romano-British society

Inevitably, in life certain species had very specific roles to play such as carrying out labour-intensive job for the benefit of agriculture or producing secondary products (i.e. milk, wool) their owners could bring to the market. As such, the value of different species to the Romano-British economy would have fluctuated with the supply and demand generated from the population living with and trading in and around the St. Albans' area. Allen and Sykes (2011) points out that during the early part of the first century A.D., chickens, one of the most common grave finds, was not perceived as everyday locally available species and their products were not have been widely available within the community. In fact, this particular species was viewed as more exotic and therefore expensive to which, perhaps, only the elites had access to.

In taking that relationship one step further, if the individuals at King Harry Lane, Cross Farm, St. Stephen's and Folly Lane were buried with those particular so-called wealth animals then we may be looking at elites or individuals whom wish to show elite or elite-like status in a particular individual's burial. Whereas the change in usage both in life and death between cattle and sheep could possibly be a

reflection of the availability as cattle took over the sheep both agriculturally and perhaps in funerary practices. Those burials which chose cattle and sheep versus pig and chicken may be the lower elite individuals on the class scale but who still have the resources to buy animals or cuts of an animal to include in the mortuary tradition. Moreover, I believe it is important to remember that there is a large group of individuals buried at the four sites of King Harry Lane, Folly Lane, St. Stephen's and Cross Farm which are unaccompanied by any faunal species. It is likely this population group is at the lower end of the hierarchal scale and are more the peasant class of which faunal remains are beyond their affordability.

Allen and Sykes (2011) suggest that new exotic species and other goods that often accompanied newly incoming foreigners, in this case the Romans, instigated a change in the worldview of the local people and as such may have affected their relationship not only with the species they were in regular contact with but also modified the way in which they dealt with the otherness of the wild unknown realms around them. A re-evaluation of zooarchaeological material from Iron Age Britain has been shown that there was a widespread lack of fish, molluscs, crustaceans, wildfowl and game mammals in the assemblages known to date suggesting a lack of local consumption of these species (Allen 2011; Dobney and Ervynck 2007; Hambleton 2008; van der Veen 2008; Willis 2007). It must be considered then, that the relationships the local communities had with these environments and the animals in them was very different to the locations they were choosing to source animal and/or animal products from. Authors such as Creighton (1995: 298); Rogers (2008) and Willis (2007: 115) further highlight the relationship with 'wilderness boundaries' as sacred due to the finds of votive-type offerings such as coins and/or metalwork often placed at the edges between so-called tamed land and the wilderness. Hamilakis (2003: 240) stresses that many traditional societies see the wilderness as a different realm from the domestic world, where the social rhythms of the everyday do not apply. To venture into the wilderness is to move within an unfamiliar, dangerous and usually sacred geography, where past and present, life and death, are merged (Ingold 2000b: 84).

Another possible motivation for including animals in burials may have to do with displaying affiliation to a particular set of religious beliefs. From what is understood of the so-called 'Roman religion' it involved a very large number of gods and goddesses and was centred on the practical influence the divine may have had over one's life rather than the idea of spiritual growth (Potter 1983). It is believed that as long as the 'worshipper' observed and enacted each ritual properly, the god(s) could be expected to play an important role in the regulation of human affairs. From textual evidence it seems the new Roman state was tolerable of other religious ideas as long as they did not threaten the political balance of the Roman state (Potter 1983). Therefore, while some major Romanised Olympic deities were worshiped throughout the empire; other local deities with many functions probably played a more predominant role in the more rural settlements. These local deities, who typically were represented as beasts or figures with zoomorphic attributes, were mainly preoccupied with fertility and prosperity, the cycle of growth and death as well as rebirth (Green 1983).

The incoming Romans were known to have brought with them exotic species, including chickens (see Hughes 2003). Texts document the large quantities of plants and animals that were imported to the Mediterranean from all across the Empire, to the point that the region from which they had been taken was made ecologically impoverished (Friedlänader 1909). This ecological impact of the Romans is validated through the archaeological record which reflects a substantial number of skeletal elements belonging to species which are found outside their natural habitats in the Roman period (Lepets and Yvinec 2002, van der Veen et al. 2008). This change of species found both in the wild and within domestic settings of course, begs the question: how might their presence have impacted the local population whom had never before seen such creatures? Helms (1993) highlights the notion that, as with many other non-native goods which have been introduced to native tribal groups, it would seem unlikely that materials, including animal species brought from the 'outside' would have been viewed neutrally. Moreover, what may have been once considered exotic at its arrival, would have eventually lost its

exoticness and turned to a state of 'neutralness'- perhaps explaining the decrease in use of chickens from early Romano-British to later Romano-British burial practices. Helms (1993: 156) offers an anecdote about the European fur trade entering into Northwest America whereby the European goods took on ritual and ideological significance where traditional ceremonial animal skins were replaced by the more modern/exotic woollen blankets. It may have been similar for the native British tribal groups, in which the Roman-imported exotic goods replaced the Iron Age 'wilderness' as the new sacred sphere. Scholars such as van der Veen (2008), King (2005), and Morris (2008) have highlighted their presence in higher frequencies of Roman ritual contexts (human graves, temples, shrines, and votive deposits) than any other deposit type.

6.7 Recognising the need for a "break" between agricultural use and funerary use of animals

According to Philpott (1991: 1) any analysis of excavated archaeological material prior to the publication of his study was inherently flawed as previous burial interpretations were based on untested assumptions resulting in differing interpretations artefacts which originated from 'evidence' seen across similar materials. The author suggests this is in part due to various authors (each with their own experimental bias) mentally connecting objects to different categories from other authors. For example, cinerary urns from a Romano-British burial ground found in Mucking, Essex were classified as pottery grave goods while hobnails (said to represent the presence of footwear) were classified as alternative grave goods (Byrne-Sweeney 2012). Where Byrne-Sweeney classified the items under certain categories, other archaeologists might interpret the urns as grave furniture, not pottery, and the hobnails as clothing, not grave goods, thus changing the interpretation of the material and how we might approach its study. Similarly, I argue that this concept of changing interpretations can be applied to faunal material found in graves. The fact faunal skeletal remains are so often labelled as food items

by archaeologists suggests they will always be interpreted as such in later research rather, than say, religious objects or medicinal items.

One way of gaining a better understanding of how these objects were perceived in death is to examine how people receive and interacted with the 'objects', in this case the live animal, during the lifetime of the said 'object' (see Moore (2007) for work on agency). Animals, after all, are made up of various parts (skin, meat, fat, bones, marrow, etc.) which could have been interacted with very differently upon the death of the animal to which they once were. Beyond that, the living animals can, in essence, act in a way that artefacts do not helping shape and give meaning to the world in which people live (Mullin 1999; Philo and Wilbert 2000; Wolch and Emel 1998). However, in the very manner of describing animal bones as objects in the grave removes the sense of a greater interaction and meaning behind their inclusion, as such one must be careful in the way faunal skeletal material is described. Allen and Sykes (2011) highlights this point further by recognising the reality that the relationships archaeologists observe between humans and animals were forged and played out during the span of time the animal was actually alive (whether is a few weeks, months or years). Furthermore, the authors remind archaeologists that the act of being processed and eaten is only a small portion of the overall relationship. It must also be recognised that human-animal relationships do not stop with the death of the main actors of the relationship, if cemented deeply enough, their heirs will retain the significance of the originating relationship in ancestral memory and as such it will be carried forth by the next generation.

7 Chapter Seven: The death of a Roman or non-Roman

The aim of this chapter is to attempt to understand how the participation in socially constructed culture influenced the inclusion of animals in their afterlife practices. It is important to recognise that the ancient city of Verulamium has not only one but at the very least two cultures (native tradition versus the incoming Roman practices) which are simultaneously interacting with one another in life to construct a unique social worldview that permeates burial traditions of that particular city within that particular time in space. This chapter works to recognise that the Romans were in fact anthropocentric in their worldview as an Empire, but also acknowledges how the native culture of St. Albans, which was less focused on domination, possessed a more fluid relationship between man and the natural world. Moving forward with the understanding of this duality allows us as researchers to look more subjectively at the existence of culturally specific mortuary traditions and their origins.

7.1 Social stigma surrounding death

The Roman attitude towards corpses was heavily influenced by their beliefs about immortality of the soul and the pollution of death. As such, the procedures and legislation surrounding the burying of the dead were highly influenced by practical considerations of hygiene (Lindsay 2000: 152-73; Cilliers 1993: 2). The particular meaning of hygiene at this time was two-fold. The first meaning of this word, was similar to our modern standards of keeping the smell and sight of a rotting corpse out of the view of the living members of the community. Secondly and more interestingly, was this ancient concept that living people who came into contact with the dead and/or death in some way could be made polluted or were viewed by the rest of the living community as having become unhygienic by their mere proximity to a corpse.

Views concerning the continued existence or complete extinction of a specific component of man/woman (or the soul) after death played a decisive role in the

way in which the deceased was treated. In particular, the concept that a soul, capable of exerting influence (for good or bad) over the living, could return, may play a crucial role in decisions on how to dispose of the corpse. Toynbee (1971: 34-36) suggested that perhaps as a consequence of the notion of honouring *manes* (or ancestral spirits), the vast majority of Roman citizens believed firmly in some form of life after death, and therefore also needed to ensure that the soul or spirit was satisfactorily freed from the dead body by means of appropriate rituals. Lindsay (2000: 168) further argues that there was a widespread belief that an incomplete cremation or inhumation burial could condemn what remains of the deceased to roam restlessly for eternity.

Lindsay (2000: 152-73) and Bodel (2000: 128-49) highlight the early ancient Roman view of death as unclean and polluting, both in cultural and religious terms. It is likely that similar attitudes remained present as the Empire grew and spread to Britain. This contamination period is described by Retief and Cilliers (2006) as lasting for the duration of the mourning period (normally nine days), and could only be ended by means of a specific purification process. For the surviving relatives, this period was also thought to have negative effects on interpersonal relations, and more dangerously, bring about a temporary end to contact with the gods and imperial civic functions. Those who were seen as polluted could not make sacrificial offerings or legally perform certain public office duties (Livy 2.8.7). It, therefore, became important for figures such as priests and others in public offices not to become contaminated by contact with the dead. However, there seems to have been exceptions to this contamination rule. For instance, individuals who died in the homes of priests or civic officers as well as pre-pubescent children whom were hastily buried or cremated within that night were among those whom were exempt (Lindsay 2000: 154, 156). As Roman Britain moved further away from 'native customs' present during the Late Iron Age, the haste in which a corpse had to be buried slightly lessened. According to Lindsay, this may have been brought on by the implementation of new regulations concerning burial practices (2000: 169, 172-3).

Some of the earliest legislations concerning burials can be found in the Laws of the Twelve Tables (451 B.C. - 449 B.C.), the ancient legislations which stood at the centrepiece of the constitution of the Roman Republic and was said to have risen out of social struggles between the ruling and working classes of the early Empire (Düll 1971: 56). They also constituted the core of the '*mos maiorum*' or custom of the ancestors. From these mandates, we have gathered that only in exceptional cases (such as Vestal virgins or the most prominent citizens) could inhumation burials or cremations take place within the bounds of the city. Babies under four days old could be buried at home, however. While these laws also identified suitable areas for cemeteries, these were adapted over the course of time. By Hadrian's reign (117 A.D. - 138 A.D.), it was required that all burials not take place closer than three kilometres from the city walls (Lindsay 2000: 170). In order to make sure appropriate burials would be carried out upon their death members of Roman society often joined *collegia* which provided affordable, honourable burials by means of regular contributions (Hope 2000a: 107; Hopkins 1983: 211-6). Despite the focus placed on efficient burial of the dead, members of the funeral industry such as undertakers and their assistants were shunned by others in the population as a consequence of their constant exposure to death (Horace, *Saturae* 2.16.19; Bodel 2000: 135-144).

While these so to speak burial rules do not seem to inform us much regarding the place of animals in human burials, knowledge of the burial norm actually allows scholars time to ponder on how and when faunal remains (most likely fleshed as demonstrated by data in Chapter 5 suggests) would have entered into the mortuary rituals.

7.2 The dead and their commemoration

Romano-Britons believed the dead were unclean and something to be avoided at all costs. Despite these beliefs the dead were unclean and something to be avoided at all costs, the dead and the various socio-cultural activities and ceremonies associated with them such as public funerals, commemorative

ceremonies, and monument dedications were a focal point of Romano-British society. Pearce (1999, 2008, 2013) suggests that it is likely, given the estimated numbers for the early Romano-British population that individual burial rites were only given to a small proportion of the overall population. In essence, the location of graves and funerary monuments stood to keep the dead for lack of a better word 'alive' in the memory of the surviving community as burial places often lined the approaches to and from the cities and towns to which the deceased once belonged (Pearce 2013). While some scholars (MacDonald 1977; Toynbee 1971) suggest that the care shown by the Romans in their burial practices ensured a requisite minimum covering of the body with soil, others argue that the Epicurean and Stoic philosophical systems in existence during this period suggest that a universal acceptance of an afterlife was not present amongst all Roman people. Thus affecting the type of burial rites afforded to the deceased (Davies 1978).

Evidence from cremation burials dating from the 1st century A.D. through the 3rd century A.D. in England suggests that the majority were carried out on a pyre away from the burial site. Afterwards the bones were collected and placed in a pottery jar (or other type of ceramic vessel) or occasionally a glass vessel or wooden casket, before being buried. More elaborate treatment of the grave could include lining the sides and bottom with wooden or stone slabs or a basket (Partridge 1977: 82). Higher-ranking elite burials (not seen in Britain) would have been delineated by more opulent structures, such as mausoleums and lead *ossuaria* (Weekes, forthcoming). Evidence for the contemporaneous practice of burying urned and un-urned cremations have been found in several British localities (Weekes, forthcoming). Less common in Roman Britain was the practice of *in situ* burning, where the pyre would be placed over a dug out pit and allowed to collapse into the pit before being covered.

In addition to holding the cremated remains, it was not unusual for burial pits to be adorned with additional items such as pottery vessels, which could number upwards of 50 individual vessels but typically numbered between one and three items (Philpott 1991). These vessels generally range from flagons or bottles,

cups or beakers and bowls or platters. However, occasionally specialised forms of pottery such as lamps and *tazze* (cups) are found. Additional examples of other non-ceramic items which have been burnt on the pyre rather than included post-burn can also be found. These items are often considered personal ornaments (brooches, bracelets, beads, pins, finger rings), toilet equipment (mirrors, tweezers), coins, lamps, and glass items. Less frequently present items include styli, belt fittings, textiles and knives (see Philpott 1991 for a more detailed list of regional distribution of grave goods).

Generally, scholars suggest the use of inhumation over cremation can be used as a distinguisher between Romans and "native" Briton burial practice. However, Philpott (1991) and Whimster (1981) demonstrate "native" customs to be more varied and complex throughout the country. The 'Aylesford-Swarling' and the La Tène III cultures, found in the South East of England, were defined by the cremation burials. Whereas, the Durotrigian culture, found on the southwest coast, and Arras cultures, in Humberside and North Yorkshire, are recognised as having practiced inhumation burial rites. The combined used of inhumation and cremation rites can be seen in densely occupied cities such as *Londinium*, where there was a trend towards inhumation practices from about the third century up through the collapse of the Empire. Individuals given this rite were typically placed in either lead or wooden coffins (Barber *et al.* 1990). Cist structures were also present during this period. Likewise, there would have been a large array of burial goods similar to those found in the cremation burials. While this thesis is not particularly concerned with the individual choice of whether to cremate or inhume, it examines whether the choice of burial method also plays a part in the decision to include faunal remains or not in the overall addition of grave items. Evidence surrounding the answer to this question will be discussed later in Chapter 9.

7.3 Identity as signifiers of burial

Identity groupings within and between cultures are known to influence the interactions between classes of human individuals as well as humans and animals.

An individual's status in the Roman world was defined by their biological sex, age and socioeconomic status. During this period, Roman society viewed the adult male body as the ideal physiology, above those of women and children who were regarded as being incomplete and therefore, of less value (Foxhall and Salmon 1998; Flemming 2000). Furthermore, literary sources seem to suggest there was a strong emphasis on reaching adulthood, as children were seen as incomplete beings capable of transformation through the life course by various social and religious rituals (Rawson 1986b, 1991). Gowland and Redfern's (2010) work reveal that Roman rituals were thought to be divided based on social gender and/or biological sex. However, particular social prescriptions were often subject to regional and temporal variation. Questions addressed in this thesis are not simply about the customs of the Roman world but about the extent to which the indigenous portion of St. Alban's community adopted those traditions both in life and in death and the effects this may have had on the human-animal relationships present within their culture.

7.3.1 Burial of the elite

In the capital of the Roman State, the birth of a young elite male, once accepted into the family unit through ritual lifting of the infant from the ground by the father, would be commemorated with the naming ceremony taking place on the ninth day of his life during the ritual of *dies lustricus.* Following this, the young male child would be given a *bulla* (a sort of round locket or pouch made of lead or gold) as a protective amulet that he would wear throughout this stage of his life (Suetonius, *Nero*, 6; Dixon 1992: 101; Corbier 2001: 54-5). Infant males would remain within the domestic household until around the age of seven years old, at which time they would begin to spend more time away from the household to begin their formal educational training and begin to participate in private male cults (Harlow and Laurence 2002). Between the ages of 15 and 17 years old, further rituals were performed to mark the transition of the male child to a male youth. The ritual signifying their entry into public life was done by dedicating the protective bulla

they wore as a child to the gods and would be followed up by a year's service in the military (Pliny, *Epistles* 10: 116; Fraschetti 1997: 65-9; Wiedemann 1989: 114-117).

This period of *iuvenas*, or youth, was thought to last until about the age of 25 years old and was considered to be a liminal period in the male lifecycle in which the young elite males were no longer considered children but not fully adult. The behaviour associated and expected from this age group suggests the individuals were impulsive, aggressive and sexually incontinent (Harlow and Laurence 2002: 69). It is at this age that associations can be drawn between particular age groups and the natural characteristics of certain faunal species (see the discussion on the cult of Mithras in Chapter 6.5). Additionally, this stage of a male's life was considered to be dangerous and therefore fraught with laws barring the youth from holding public office or partaking in business affairs until the age of 25 to 30 years old (Harlow and Laurence 2002: 76). Marriage marked the end of *iuvenas* signalling the acceptance of the male youth as a full adult citizen, who was then able to undertake public duties and enter the political arena (Harlow and Laurence 2002: 78).

Elite females, on the other hand, had a much less defined life course (at least demonstrated in the contemporary literature) than their male counterparts. Marriage and motherhood are understood by researchers to form the core of her duties, as it seems that a girl would only make the transition into full adulthood on the day of her marriage (Allason-Jones 2005: 15; Harlow and Laurence 2002: 54). Similarly, at birth, the father was required to accept the female infant into the family were she would be named in a ceremony on the eighth day of her life rather than the ninth as her male counterpart. According to Roman medical texts, this practice was due to the belief that female matured faster than males (Jackson 1988). While female children were educated, they would remain within the domestic environment until married. According to the ancient Greek physician, Soranus (*Gynaecology* 1.33), it was believed that females possessed little control over their own sexuality. Thus with the onset of their first menstruation, around the age of 14 years, their diet and behaviour was to be monitored and the girl was to be

chaperoned in order to protect her virginity. Despite Soranus being of Greek and not Roman descent, researchers still apply this cultural response to females throughout Roman and Romano-British cultures. Harlow and Laurence (2002: 57-8) suggest that this biological change may have signalled her readiness for marriage, however, it has been suggested that legally a female could marry from the age of twelve.

The relativeness of this information may be completely null and void when it comes to dealing with Romano-British individuals and their perception outside the main reaches of Rome. However, it is more likely, that the local people of Britain did in fact follow some sort of distinction between when an individual (no matter male or female) transitioned from being considered an infant to a child to a full adult within the family and greater community. Pearce (forthcoming) highlights the fact that differences in burial evoke images of inequalities in social status; the dead were often buried with items to signify their office, rank or social status among their peers. Just as importantly though, were the divisions in rites given between those who did not reach adulthood and those who did. The importance of this topic will be seen as it is brought into the discussion later in this chapter when attempting to further understand the relationship between biological age, culturally assigned markers of adulthood and the possibility of the inclusion of faunal remains as a rite reserved for those who have died within a particular age group.

In addition to the elite male/female gender differences, other cultural identities such as citizen/non-citizen, slave, free-born or freed slave males and females also existed. Personas surrounding the social and legal identity of an individual's status created several fractions within any single 'Roman' cultural group - particularly when dealing with periphery groups such as Roman-Britons. The wealth, and ethnicity of a person also played a role in the overall manner in which individuals viewed themselves and how others within and outside their social subgroups and larger communities interacted with them in life as well as in death (see Carroll 2006; D'Ambra 2002; George 2005; Hope 1998, 2000a, 2000b, 2001; Mustakallio 2005). Both social and legal ideals were capable of altering an

individual's status as well as cement particular facts or groupings of a person. Moreover, the manner in which a funeral ceremony was carried out was no less important for creating a lasting identity for the deceased person. This is often communicated in some fashion through the type of burial they receive.

7.3.2 Burials of the lowest classes

While Roman archaeologists admit that the Roman social hierarchy included indentured workers and slaves, research focusing in Britain as well as the rest of Europe is so restricted that any little shred of textual evidence for the slave and slave-owner relationship is hard to come by. Part of the problem, of course, is that this particular class of people is amongst the 'invisible' in the archaeological record. Webster (2005: 161-179) compares the servitude class of the Roman Empire to that of the African-American slave community in which historical scholars approach the subject under the impression that slaves and slave culture can only be studied through the imposed material culture of their owners making them barely distinguishable from the poorest European-Americans. However, Webster (2005: 163) offers an interesting suggestion on ways to identify this group. She calls for researchers to step out of the box and critically examine elements of creolization of Anglo-American and African-American elements found not only in their use of existing material culture but also the manner in which new artefacts were created and how such approaches can be applied to the Classical world. Webster (2005) points out the biggest issue facing Classical researchers is that, while in this case the slave population originate from a particular ethnic group (individuals originating from African countries) the Roman world was known to draw from a wider range for its slave 'supply' (Webster 2005: 169). While in theory subjects of the empire could not legally be enslaved, there is evidence to suggest otherwise. Legal forms of entry into servitude usually included children being sold into slavery as a result of poverty, self-sale for debt, and penal condemnation to slavery. Furthermore, children were born into slavery if their mother was a slave (referred to as *vernae*). Orphaned children, exposed infants and other foundlings were also taken into

slavery resulting in an internal rather than external source and as such the slave culture, one would assume, would not differ as greatly as slaves coming from an external source (Webster 2005). However, the subject of conquest and 'Romanisation' in reference to Britain also comes to mind. Much research has been conducted on 'native' Iron Age traditions so there may be hints of creolisation amongst those rebellious individuals taken into Roman custody.

Literature of Late Iron Age burial practices show a trend of human-animal burial rites. The possibility of slaves buried alongside other enslaved animal individuals is interesting. However, it should not be assumed that all individuals found within Romano-British settlements and cemeteries represent enslaved individuals. Interpretations of grave goods and burial location of cremated individuals suggest they are not cases of enslaved humans as they are also buried within the main cemetery area, not segregated from the main population as one might expect. However, the inhumed individuals of Folly Lane may suggest otherwise. Webster reminds us that it was likely to be other slaves or indentured servants that buried their own deceased and therefore followed their own traditions rather than the mainstream traditions of the higher classed and elites. As stated before in Chapter 5.2, Folly Lane Burial 14 is buried away from those cremated with no grave goods besides the cattle humerus. The others also buried nearby lack any signs of grave goods or other paths of commemoration. While Niblett (1999) suggest the inhumed individuals may have had interrupted ceremonial treatment by other events, I believe it is also a possibility that these individuals may represent a lower status group.

7.3.3 Burial of children

Poignantly, Revell (2005) describes the life cycle, with particular reference to the Roman society, as being created through the existence of various ages of humans all living, working, celebrating and dying within the presence of others and in essence contributing their own life experiences to shape a shared experience about what is expected from the individuals within a community. While an adult has

fulfilled their potential, so to speak, a child (especially an infant) is essentially an incomplete adult. Archaeologists, anthropologists and ethnologists alike ask the same questions, albeit in regards to different groups of living and dead cultures- When does a child become an adult and at what point is the adult lifecycle considered to be fulfilled? Culturally, is this an age distinction? While some may not directly see what these questions have to do with the inclusion of animals in burial rites, I believe that given the nature of the results presented earlier in Chapter 5.4, the age of human adulthood may be linked (in addition with other factors) to the receiving of such a rite as human-animal co-burial.

While the 21st century Western world views the onset of adulthood through attaining the biological age of 18 years, ancient cultures may have simply seen the onset of menses, the participation in marriage, and/or the birthing of children (particularly for women) as events in the lifecycle which solidified one's position as an adult. Sources from the Roman period suggest girls as young as twelve years could marry (Rawson 1991: 27). In regards to age and the affect they may have on mortuary rites, the question then becomes - what is the cultural and social reaction (keeping in mind the cultural standard) when an individual died before adulthood is reached or the lifecycle is fulfilled? In the interest of this thesis' research questions, are there markers that can be identified archaeologically (perhaps the presence of faunal remains) that can be said to act as tokens to show certain stages have been achieved?

Plutarch's *Moralia*, has been frequently drawn upon by scholars for explanations of Roman social practice, and outlines the supposed response to the death of the young and how they should be treated:

"We neither bring offerings of drink to those who die in infancy nor do we do for them the things which it is customary to do for the dead; for they had no part in this world or in the things of this world; nor are we devoted to their graves and monuments, nor to the laying out of their bodies, nor do we sit by their bodies; for the laws do not allow us to mourn those of such an age" (Plut. Mor. 612A = Cons. Ad Ux. II).

Pliny the Elder is also cited frequently by modern scholars for having written that infants who died before teething were not usually accorded the cremation rite as they were not viewed within their society as 'fully human' (*Naturalis Historia* 7.24). Despite Plutarch, a Platonist philosopher, and Pliny the Elder, a Stoic philosopher, being from opposing schools of thought, both men seem to share a viewpoint that infants and children were not part of the same community as the adult members. However, I argue that taking the viewpoint of either Stoicism or Platonist thought as true practice for what occurred in Roman occupied Verulamium has been proven wrong on several occasions. Not only is it important to realise that Roman elite males wrote these texts from the epicentre of the Empire, but it also does not necessarily reflect the practice and perception of females throughout the social classes in either Rome or through the extent of the Empire. It is not necessarily true that such philosophies would have been known and disseminated as widespread as Verulamium, or other locations within Britain, despite them being considerably Roman friendly (Niblett and Thompson 2005).

7.3.4 Burial of the deviant 'other'

One of the questions presented in Chapter 1 was this question of whether or not human-animal co-burials could be interpreted as a sign of deviant status on behalf of either the human individual or some sort of combined status between the human and the animal. While every society has its concepts of a good and bad death, they all play a role in determining the rites given to those individuals. For example, interpretations of inhumations in which the arrangement of the body (face-down, decapitation, bound limbs, etc.) and location (segregated ditches or found outside main cemeteries) which are found to be peculiar, can often suggest not only a need for a hasty burial but also, potentially, a negative circumstance regarding that individual's death (Philpot 1991: 72). According to Weekes (forthcoming) individuals were perhaps designated in society by the aspect of their

death and assigned the status of 'other'. He suggests that this could have been a prescribed deviance or perhaps certain types of death were predicable, given the occupation of that said individual. This in turn prompts other questions not examined in this thesis, about the nature of violence within the community either as punitive or ritualistic practice.

While this idea proves interesting to consider, the location and care given to the burials suggest nothing was culturally amiss with the circumstances of their deaths. Full rites, including the provisioning of ceramic and metal objects were found within each burial. Past scholarly research suggests individuals, who may have not been accepted within the community at death or potentially been a menace to society have often been found to be buried with less care or in humiliating fashions, such as wrists, legs and/or feet bound, possibly beheaded with the skull between the legs. It is unlikely members of the community would allocate the amount of resources and time to allow the corpse of the individual to be cremated in peace. Noy (2000) suggests quick cremations were a possible occurrence for such individuals whose body may be desecrated later if not disposed of in a timely fashion.

As seen from the figures highlighting burial locations in Chapter 3, there does not seem to be any individuals which might be considered 'other' as there are no isolated burials, no signs of corporal punishment or of extreme disease (for example leprosy) which would have set them apart from the rest of their community. However, this could be due to the haphazard manner in which the excavations were carried out in the 1970s which concentrated on the more 'populated' and 'rich' areas of the settlements and burial grounds (Niblett 1999; Stead and Rigby 1989). An unexplained crania found down a shaft on the Folly Lane site begs further exploration and questioning as to its significance and possible fulfilment of 'other', unfortunately, dating evidence fell outside the focus of this study. As far as human-animal co-burials being a marker of 'other' burial status, the level of integration in the cemeteries between those buried with and without faunal counterparts would

suggest there was nothing seen on behalf of the surviving community as those individuals taking on the 'other' status.

7.4 Preparation for burial and procession

The ritual marking of the passage between death and the hereafter usually began in the home of the deceased and was strongly influenced by the social status and cultural affiliation of the family. The procedure described below would have probably been typical for Romans of the middle and upper classes (Retief and Cilliers 2006) and could have differed amongst the Romans settled in Britain. Moreover, the stages/procedures leading up to the burial come to the modern reader through Latin texts, therefore there should always be the acknowledgement that what is narrated may also be an idealized form of the final rites. Thus understanding that the circumstances surrounding the death and burial of individuals may not have always allowed 'key points' of the process to be met in the same manner.

Much like today, the moment of death was traditionally signalled by a final sigh. The first step of the *funus translaticium*, or ordinary funeral (as the Romans made a distinction between a common funeral and that of a public funeral for a distinguished person), was for the deceased to be kissed by a near relative to catch the escaping soul (Retief and Cilliers 2006). Suetonius captures this moment between the dying Augustus and his wife Livia (*Augustus* 100.99). The eyes of the corpse would then be closed by a family member and the *conclamatio*, or calling of the deceased's name, would begin. This practice was believed to continue until the actual cremation or inhumation burial, in order to ensure that he or she was actually dead and to indicate that the procedures for an appropriate burial (*iusta sepultura*) had begun. The corpse would then be lifted from the bed, rested on its knees for a while before placed on the ground where they would be washed and perfumed by female relatives (*pollinctores*). A coin was sometimes placed into the mouth as a fee for the mythological ferryman, Charon. The poor would then usually be wrapped in black cloth, but a white toga was preferable (Juvenal 3.171-180). According to

Pliny the Elder (*Natural History* 16.40.139), branches of the cypress tree or mountain pine were driven into the ground at the front door, as a warning that there was a corpse within the house.

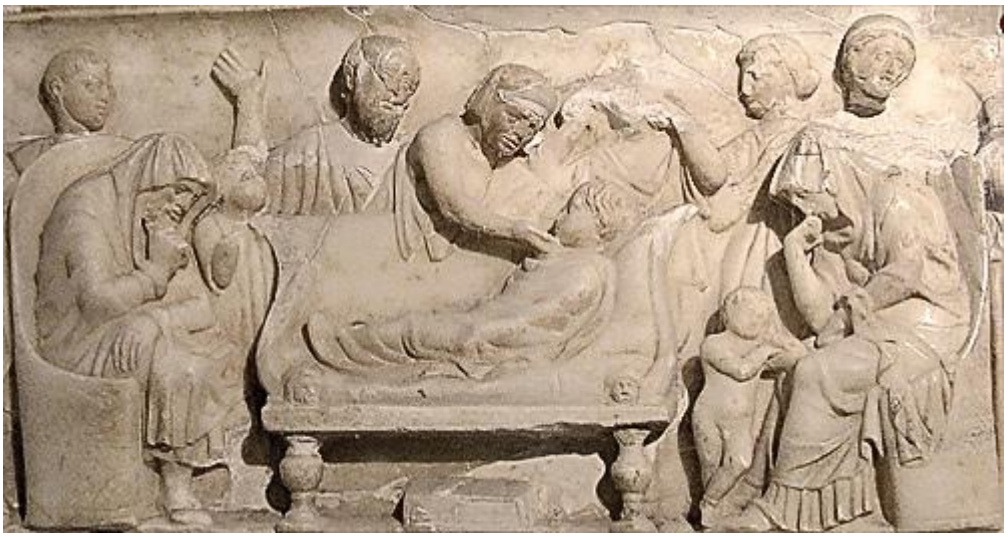


Figure 7.1: Roman sarcophagus depicting the mourning period, 2nd century A.D. (Agrigento, Museo Archeologico Regionale).

Terence, in his descriptions of a funeral in *Phormio* (1.97) describes the body lying in state, or *exposition*, on a special funeral bed in the atrium of the residence (like the example in Figure 7.1), with the feet pointing towards the door too, supposedly, indicating that the death had not been a violent one. Visitors and mourners came to offer their condolences, and flowers would be placed around the corpse. In wealthy families, musicians may have also been present. In *De luctu* (On Mourning) (12-15), Lucian writes that sometimes these occasions would be accompanied by excessive mourning and self-inflicted injuries despite that they were forbidden by the regulations of the Twelve Tables (Düll 1971: 58). Hopkins (1983: 217) writes that emotional behaviour was seen as inappropriate for men. Tacitus (*Annals* 3.2 on the death of Germanicus), however, describes *praeficae* (literally translated as wailing women- probably women from the related family) and other female mourners as dressing in black wearing their hair loose and sprinkled with ash.

Figure 7.2: Sarcophagus depicting a funeral procession, late first century B.C. (Alinari, Florence. L'Aquila, Museo d'Arte Nazionale d'Abruzzo).

The *pompa*, or funeral procession (depicted in Figure 7.2), would usually begin at the deceased's house as the dead was carried out of the residence (*exsequiae*) by invited friends (Retief and Cilliers 2006). Additional ceremonies are said to have taken place at the crematorium or the grave. The face of the deceased would then be covered, especially in cases of violent deaths or if decomposition had already started, as they were brought on an open wooden stretcher to the grave or pyre site (Apuleius, *Metamorphoses* 4.18; Dio Cassius 61.7). At these sites there may have been a short ceremony in which soil would have been cast over the corpse. Excavations of Romano-British burials do not necessarily support this event taking place, as cremations were collected and buried in their own right and there was no evidence, particularly in the burials examined for this thesis, of non-cremated phalanges amongst cremated material. This may have been a purely symbolic reference not fact. Interestingly, in none of the ancient writings is there ever anything about the inclusion of faunal remains in the pre- or post-burial treatment.

7.5 Construction of the pyre and burning ceremony

Much of what presents itself in the archaeological record from Romano-British cremation rites are the physical bone remains, and perhaps some remnants of the other objects present at the time of the rite such as the platform upon which deceased individuals were cremated. Weekes (2008: 148-149) suggests that

cremation activities can be divided between the actual work associated with the building of the pyre and the maintaining of a cremation, and those involved with the pyre-side rituals (or the mourning process). The current archaeological evidence needed for the recognition of a pyre site includes three specific things found in direct association: localised burning of the ground surface, 'pyre debris' in the form of fuel residues, and at least some 'residual' cremated human bone (McKinley 1989: 73). While McKinley (1989: 73) has noted scorching on the sides of cut features or deposition fills within those features, she suggests that this may be due to the secondary deposit of very hot material. Evidence of further structural components at the pyre site, such as posthole features might also add to the picture (Strück 1993; McKinley 1994: 80; 1997: 65; 2000: 39; Pearce 1999: 41). Unfortunately for archaeologists, the very nature of pyre construction on the ground surface has meant that such features have been especially vulnerable to ancient site clearance as well as post-depositional and excavation processes, making the survival of this dynamic evidence relatively scarce (McKinley 2000: 39).

From descriptions of the burials found in the site reports used in this thesis (Stead and Rigby 1989; Niblett 1999), it seems that I am mainly dealing with *ustrinum* burials in which a separate funerary construction was used for incinerating the deceased. Once the cremation had taken place and were allowed to cool for some period, the remains, either portions or complete, were collected and placed into a cinerarium- the place or object which received the ashes, most traditionally an urn or amphorae- and then buried away from the original pyre site.

Scholars have assumed that the size of the pyre and quantity of goods and so-called food offerings burned might have been connected with the status or at least the disposable income of the deceased and their heirs. Further to that, however, that the inclusion of these remains with the burial as opposed to their presence in the dumping of the pyre residues were likely to have been as a result of variation of the collection rather than as a deliberate action (Barber and Bowsher 2000). I do not agree with this as it assumes that essentially whatever items or riches were on show during the cremation event are no longer necessary in the burial; this also assumes

a lack of care on behalf of those members of society that would have collected the physical remains of the deceased. There is nothing to suggest that professional individuals involved in the lighting and maintaining of the pyre would have also been responsible for the collection of the remains post-burning. As such, one can assume that the individuals who partook of the collection and secondary burial of the deceased would have had familial ties or at least been friendly with the person in life. Barber and Bowsher (2000) go further in saying (in relation to Roman London burials) that the variation in the combustion of bone and quantities of bone collected for burial might have also been related to status or wealth, but attests that there has been no identifiable general pattern to base this hypothesis on.

It should be highlighted that pyres were likely to have been specifically built for each deceased individual, as the literature suggests that having to use someone else's pyre was a sign of poverty. Alternatively, there has been suggestions in cases of emergency, such as in cases where the body may be subject to ridicule or defamed in some manner, another individual's pyre may be used (Noy 2000; Lucretius 6.1282-6; Martial 8.75; Lucan 5.281-2, 7.803-4). The process largely goes unnoticed in Roman literature, although Vitruvius (2.9.15) observes that pyres were built with layers of logs, each laid over the previous one at right angles to it. Seneca also provides a description of Hercules' pyre as being built with 'alternating logs' (*alternae trabes*) (Seneca, *Hercules Oetaeus and Octavia*, 1637). This lack of reference suggests there was some implicit knowledge about the cremation process on behalf of those who would have been familiar with the texts. This is particularly true for Ovid and his recurring phrase 'a built pyre' (*rogus structus*) (Ovid, *Tristia*, 1.3.98, 3.13.21, 4.10.86; *Ex Ponto*, 3.2.32). There are also several references made in a funeral context in regards to an *ustor*, presumably a professional pyre-builder, the duties of whom are never explained (Catullus 59.5; Cicero, *Pro Milone* 33.90; Lucan 8.738; Martial 3.93.26). Noy (2000) makes this connection through examining the derivative word *uro*, which is to burn.

Given the right quantity of time, heat and oxygen supply, anything organic which has been selected for cremation can reach full oxidization. The question is,

however, was it a key requirement during the Romano-British period for individual who was cremated to be fully oxidized? According to McKinley (2006) it may have been the 'magic' of the transformation from one state (the corpse, recognizable as the individual) to another (burnt, clearly altered and 'purified') that was required rather than the actual degree of oxidization.

On the other hand, contemporary written sources indicate that for the Romans, incomplete cremation was "to be deplored, being regarded as an insult to the deceased and…not enabling the soul to reach the afterlife…" (Noy 2000). According to Noy (2000) contemporaneous records suggest cremations could have lasted up to as long as eight hours and as such would have expected to see high levels of oxidation comparable to those seen in the experiments described in McKinley's (2008) paper. Noy (2005) points out that the use of the word *ossilegium* could have been used to suggest the main objective of the cremation was to be able to identify the deceased as bones, rather than have a particular variation in the colour of the bones. With that being said, the data as discussed in Chapter 8.5 is consistent with burning at extreme temperatures in which near or complete oxidation would have occurred. As such one could argue that the change and variation in colour and type of fragmentation is evidence for the "pyre maintenance" rather than to achieve a colour which was sought after for a specific pyre-side or post-burn ritual. This hypothesis is further supported by the wide evidence for Roman cremations to be done at very high temperatures rather than low burn temperatures seen in later periods such as with the Anglo-Saxons, who achieve more of a char rather than a burn to skeletal material.

Weekes (2008: 151-52), on the other hand, describes materials other than fuel derivatives and burnt humans remains as evidence for pyre-side ritual. In this category he includes charred plant remains, burnt animal bone and remnants of other objects which were not necessarily exclusive from this particular category but could have 'entered the ritual' at an earlier stage. While not a primary concern for this thesis, archaeologists have examined charcoal and charred seeds found in association with pyre material in order to gain an idea of the type of wood used as

fuel and kindling used to sustain the fires (Davis and de Moulins 2000; Campbell 2004; Mould 2004; Watson 2004). Burnt nails and burnt clay have also been collected and examined as they are thought to be evidence for the pyre structure (or possible reuse of wood/biers, or other wooden objects for fuel) or a possible result of bone collection and pyre clearing procedures (Weekes 2008).

7.6 Remembrance of the individual; remembrance of the whole

All major transient stages in human life: birth, puberty, marriage and death are full of sacred and secular rituals. This was particularly true of Roman society where the idealised social roles of males and females were represented on monuments, tombstones, in moral discourse and legal documents (Moore 2009). Ancient sources primarily follow elite males from the time they are born through puberty and marriage indicating that concepts relating to age and social identity were always a large part of the culture. There are fewer sources describing transient rituals for elite females, and descriptions of rites of passage for the lower peasant class and slaves are almost non-existent. What we know of transitional stages for Iron Age people is mostly based off of reconstructed burial evidence alongside little references in texts written by the conquering Romans.

The 1970s the 'processual' approach to ancient societies focused on burial evidence as a resource from which social complexity were thought to be reflected by the use of ethnographic evidence to establish cross-cultural models relating to society. Development of burial archaeology in the 1980s and 1990s often regarded funerary traditions as a 'mask' rather than a mirror of a society meaning that others looking upon the traditions will see what the society wanted to display rather than a true reflection of that group (Fahlander and Oestigaard 2008). Williams (2006) uses Halbwach's argument (1992) to draw upon this idea of how someone views the deceased to discuss the creation of memory. Connerton (1989) who argues that remembrance can be inscribed in relation to monuments, buildings or found in texts suggests that not only does the act of remembering a deceased individual

incorporate them into a larger body of ancestors, but also creates an extension of their physical body which is remembered (either subconsciously or consciously) and creates a more ethereal concept of that person. The incorporation of faunal species both in and outside the grave lend themselves to become an active part of the creation of the social memory of the deceased.

In many societies, final burial rites are celebrated with feasts. It has often been said that funerary rituals connected to food and drink could serve to denote the status of the participants and those organising the funeral through conspicuous consumption. They can also serve to orchestrate social relations among the living and with the dead and the ancestors (Garnsey 1999; Lindsay 1998). On one hand Holtzman (2006) reminds us that food primarily represents physical fuel which must be consumed by all to stay alive. On the other hand, he argues that it can also act as a symbol, in which it becomes a medium for an experience. Memory itself can exist as a private remembrance or it can become the subject of public displays of historically validated identity, historical shift, or allow the present to be defined through the imagining of the past that never was (Holtzman 2006).

7.6.1 The role of cremation in remembrance

Evidence for the fragmentation, circulation, preservation and representation of human remains in different funerary, religious and domestic contexts may indicate contrasting engagements between the living and the dead in which bodies, bones and material culture may have held an agency influencing remembrances (Williams 2004b). The widespread and varied practices employed in cremating the dead found in many prehistoric and historic cultures offer an opportunity to investigate the mnemonic agency, or social memory, of bodies and bones. Evidence from Anglo-Saxon cremation burials at Spong Hill and Sancton (McKinley 1994) and a possible pyre site at Snape (Filmer-Sankey and Pestell 2001) suggest that early Anglo-Saxon funerals have found parallels in the range of artefacts for those who have been cremated versus those who have been inhumed. In addition, there has been evidence from these sites that sacrificial animals were included on the pyre

either as whole animals or 'joints of meat' (Bond 1996). These animals included horse, sheep/goat, cattle, pig, dog and a range of other species. In essence the visualisation of this ritual act must be analysed with the practicality and reality of the pyre dimensions and amount of resources available as demonstrated by Figure 7.3.

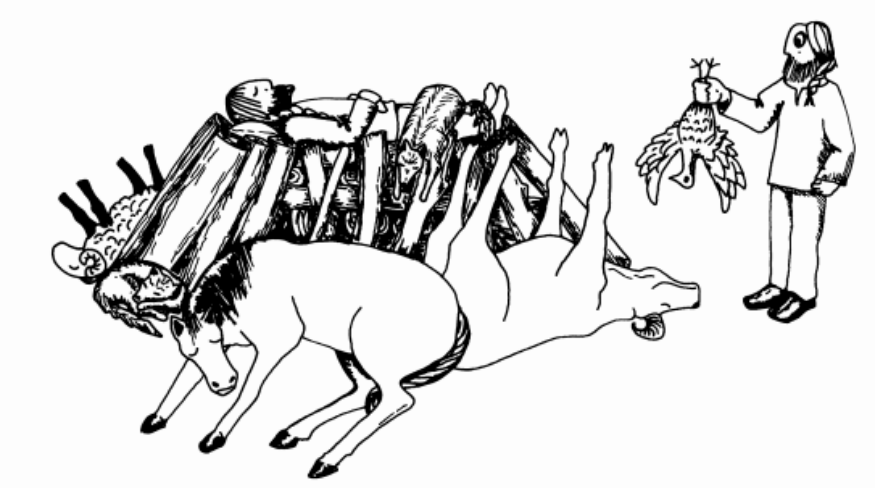


Figure 7.3: Artistic interpretation of an overcrowded cremation pyre in the Anglo-Saxon period (Bond 1996: 80).

Ethnographic accounts provide modern researchers with expectations of what may have occurred in the past. Ash, charcoal and bones can be used in the construction of the dead social person and their remembrance (Williams 2004a). Among the Oraons of India, women went to the cremation ground and picked up the remnants of the bones of the neck, arms, legs and chest of the deceased with their left hands and placed on them a brass plate or new earthenware dish. They were then washed in a new piece of cloth, anointed with turmeric paste and placed into a new earthenware jar. Each bone was symbolically kissed before being placed in said jar (Roy 1928: 178). This practice was done similarly by the Phayeng of Manipur, India (ManiBabu Sing 1994). While researchers may find remnants of the paste or oils used to anoint the bones, archaeologists would not find evidence of the symbolic kisses, thus we can see how our understanding of the rituals is inhibited by what survives.

7.6.2 Memorialization through food and feasting

Mortuary feasting is a particularly important arena for memorialising and/or forgetting past individuals through food. In some instances, the context of the feast creates a space for temporary memorialisation after which the person can be, at least publicly, forgotten (Munn 1986, Battaglia 1990). In contrast, Sutton (2001) suggests that the offering of mortuary food, as well as later devotions to the dead relatives, begins the creation of a new person, by editing memories of the deceased in reference to their generosity while alive. Hamilakis (1998) draws reference to Melanesian ethnography of funerary feasting from the Bronze Age Aegean.

Foster (1990) argues that there is some sort of ceremonial exchange within the feasts as there is both a feeding/ nourishment for the living as well as the dead. Bloch (1985) goes as far as to suggest a sort of metaphorical quasi-cannibalism ritual for the Merina 'tribe' as they almost eat their ancestors in the form of rice and beef. Here there is a mythic bond that has formed between specific food items and the community's deceased. Stephen's (1998) work presents a more psychological approach tying funerary 'cannibalism' to deeply embedded social memories of other types of bereavement and loss.

With that being said, I am not suggesting that Romano-British populations were in fact partaking in cannibalistic rituals. However, I am suggesting that the idea of the fire 'eating away' at the deceased and all objects placed on the pyre creates a very lasting image of destruction. A destruction, that perhaps aids in the removal of previous identities and replaced with a single shared identity.

7.7 Conclusion

While this chapter did not follow the events of a specific person for a funeral ceremony, it attempted to show the general themes and processes one might go through. Moreover, this chapter considered not just the living individual but how the living individual was treated after their death by the community. Although this sort of thought process does not seem to be related much to animals, it is in fact a great deal related. How a community approaches its deceased human community

may reflect how that same community interacts (including their attitudes towards) the deceased non-human members of their world.

8 Chapter Eight: Objects and their role in Romano-British burials

The classification of grave goods in the field of Archaeology has been the key to understanding ancient culture and social hierarchy. Traditionally, scholars lean towards the classification of grave goods according to gender: swords, armour and other so-called masculine items were for men while mirrors, cosmetics and other perceived feminine items for women (see case studies in Crummy and Eckardt 2003; Swift 2000). Further to gender-based object division, scholars tend to classify animal remains as additional burial objects, viewing their inclusion as markers of status and wealth (Härke 2014). Some scholars have attempted to assign placement of animals with certain genders as well, however, there has not been enough consistent evidence across multiple sites to suggest this is in fact the case as discussed earlier in Chapter 5.4.

This chapter will examine the validity of such assumptions by critically considering the highly variable depiction of animals, not only on pottery, but also figurines, brooches, buckles and adornments to everyday objects such as wall mounts, furniture or harness fittings, and cutlery. By examining the locality of where these animals are found (i.e. the living culture versus the death culture) some additional insight to the human animal relationship and the importance particular animals possessed will hopefully be gained. Furthermore, I will explore the question of whether animal representations on objects act as an alternative means of sourcing or recalling certain species when the real bones are not available.

8.1 Constructing identity through burial display and object inclusion

In approaching the human–animal relationship from a for-human-gain perspective, the first concept to be explored would be trying to understand the inclusion of animals in burials as status markers. In this mind-set, both animals and other grave objects could be capsulized a singular category of items used to bolster the identity of the deceased through the display of wealth. According to Tainter (1977: 332), the degree of burial display can be related to the so-called energy-

expenditure theory in which a person of higher rank is entitled to a larger amount of community involvement in the act of interment, and to a greater disruption of normal activities for the mortuary ritual. This, however, is a very economist sort of viewpoint in which more equals greater status. Scholars must remember that many factors influence quantity of grave goods placed within the interment including, but not limited to the circumstances of death, the political situation of the surviving community and the culture-specific ideologies of death and identity present in the group (Robb *et al.* 2001).

Among the objects found in grave assemblages are items which are directly sourced from the animal species (i.e. bones), objects made of different types of material which are shaped to resemble certain species, and objects which merely depict certain species on them while retaining a non-animal form. The question must be asked: are these zoomorphic representations meant to take on higher meanings or are they simply present as decoration to the objects used for specific purposes? How does this sort of presence in a burial differ from the act of placing of physical faunal remains? In fact, is there any difference at all?

Cool (1990) explores the role of personal adornment items in the expression of identity (or perceived identity) but does not approach the concept of how the presence of specific faunal species aid in the construction of those identities. Numerous anthropological examples can be found of individuals, particularly those wishing to be among the elite social class, actively participating in the building of a desired image through the gathering elements from certain animal species or imitating those species to construct a social mask which elevates themselves above others in their group (see DeMello 2007; Conneller 2004; Pickenpaugh 1997 for various examples). Härke (2014) reminds us that the reasons for the inclusion of certain items in a burial are numerous and, as such I believe we must consider a deeper reasoning behind the presence of animal portrayals in burials amongst grave objects in addition to the inclusion of the animal bones themselves.

8.2 Items of personal adornment

Roman jewellery was made out of a variety of materials ranging from gold, silver, and copper alloy to semi-precious stones, coral, glass, jet and animal bone. Additional processes such as gilding, tinning and silvering gave cheaper materials the appearance of extravagance (Croom 2004). However, the material alone cannot determine the class of the individual who bought it as small items would have been affordable across the strata of social hierarchy. While objects such as earrings, necklaces and bracelets were always a decorative item for the embellishment of clothing and the individual, other items such as hairpins, brooches and signet finger rings served more practical purposes (Croom 2004: 290). Ancient Mediterranean sculptures and paintings suggest that women tended to wear their long hair pinned up and such fashions were quickly adopted in Britain post-Roman invasion. Thick, straight hairpins are one of the most common finds on Roman occupied archaeological sites throughout Britain (Croom 2004: 293). Later these hair pins became more stylised through the use of decorative elements such as zoomorphic and anthropomorphic imagery, nods to architectural designs and so on.

8.2.1 Finger rings

Unlike hair pins, which were only worn by women, finger rings were worn by both men and women. The range of images used seems to have been very diverse. Deities such as Mars, Venus, Bacchus, Bonus Eventus, Fortuna and guardian spirits have been found (Croom 2004: 295). Additionally, imagery of rural life, hunters, animals, monsters and mythical creatures like griffins, sea-creatures, wild animals such as lions, horses, birds and shrimp have been found. Croom (*ibid.*) suggests the reasoning behind the images may have been reflections of the owner's wish to have a gem with amulitic properties which I believe can tie in to the idea of elemental and humoritic medicine discussed in Chapter 6.3. Croom (*ibid.*) also suggests that images of certain deities like Mars, Fortuna and Victory could reflect a soldier's interest in returning home and remaining safe. Likewise, the author

acknowledges the possibility that the buyer could have purchased the item simply because they liked the image or due to some other personal motivation that archaeologists could not possibly be aware of (Croom *ibid.*).

8.2.2 Zoomorphic forms seen among brooches

Britain, Northern Gaul and Belgica were famous in the Roman world for their production of enamelled metalwork. This included pieces such as small brooches, harness fittings, plaques, necklets, bracelets and finger rings. Like hairpins, brooches played as much a functional role as they did a decorative one since they were used to hold clothing together and as such the items would have been worn by both men and women. While many brooches were disc form, there is an undoubtedly class of animal-shaped forms of both a stylised and realistic nature commonly produced between 50 A.D. and 150 A.D. Hattatt (1982: 158-165) reminds us that prior to the Roman occupation of Britain there was a tradition of depicting animals and other zoomorphic forms in native brooches and implements. Hattatt (1982: 158-165) argues that particular animals chosen for representation were "almost invariably related with strong religious significance for the 'Celts' such as horses, stags, hares, eagles, swans, ducks, cockerels, hens and fish."

Figure 8.1: Horse-and-rider brooch type example, 1st-2nd cent. A.D., (Portable antiquities Scheme reference: IOW-74EB3E – added by F. Basford March 2015) [https://finds.org.uk/database/images/image/id/509398]. © The Trustees of the British Museum

One of the most common mammalian type of brooches is the horse-and-rider (examples seen in Figure 8.1). There are two types of horse-and-rider brooches, the most frequent being where the horse is in action with the rider's head thrown back and without bodily detail, except occasionally a foot. The second type depict the horse to be more at a stand-still with the rider's body shown upright, much more exaggerated in size and sometimes holding a baton with facial features and legs being more clearly defined (Hattatt 1987: 232). Along with horse-and-rider type brooches, animal forms have been found which are shaped to look like the animal is in action with the form leaping, running, etc. rather than just sitting static.

Figure 8.2: Dragonesque brooch type example, 1st-2nd cent A.D. [British Museum: http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=807402&partId=1&searchText=celtic+brooches&page=1]. © The Trustees of the British Museum.

Other brooch forms are not intrinsically shaped to recall a certain animal, but act as additional decoration to a simpler brooch type. Animal heads and bodies such as lions (Hattatt 1987:44), bulls, and fish (Hattatt 1982: 116) are often seen adorning bow, knee and dolphin [so called for the reminiscent side shape recalling the hump of a dolphin curvature (Hattatt 1982: 64)] brooches. Additionally,

dragonesque brooches have been deemed as such through their s-curved shape which looks like the mythical creature. It is unknown if the original makers of the brooches were attempting to create such a reference through the shape of the aforementioned brooch (Hattatt 1982: 152-157). In his comprehensive survey of Romano-British jewellery, Johns (1996) has noted the particular uniqueness of certain items as being Romano-British. One such item is the dragonesque brooch form. Croom (2004: 290) refers to it as having a Celtic feel, but there are no pre-Roman examples of it as of yet. So it could in fact, be an example of the inclusion of local culture into the overall mainstream domineering Roman one.

Zoomorphic brooches from this period vary both in their construction, from flat to three-dimensional with or without enamel (typically suggesting a date between the third and fourth centuries A.D.), and in their representation, from domestic creatures to fabulous monsters (Hattatt 1987: 223- 24). During the second century bird and mammals were by far the most popular in representation on brooches as they constituted over 80% of zoomorphic brooches (according to Hattatt 1987: 224). Birds in flight, domestic fowl and water birds appear in equal numbers. Similarly, amongst the mammal shaped brooches domestic and wild creatures are also about equal in number (Hattatt 1987: 224). Fish, reptiles and insects comprise a small number along with the more fantastic monster-like creatures depicted on the brooches.

8.3 Objects in animal form present within King Harry Lane, St. Stephens, Folly Lane and Cross Farm

While I did not examine the grave objects myself, I was able to attain much more extensive information from King Harry Lane and Folly Lane than I was from St. Stephens' cemetery and Cross Farm. It became clear that animals were used in three different ways in addition to the inclusion of skeletal remains on the cremation pyre. The first way in which they were present was through their inclusion of imagery on other objects not specifically linked to the animals themselves. This may

be in a symbolic form or realistic depiction. In Verulamium this sort of imagery often took the shape of birds, serpents or lions and was placed on jewellery made from a variety of precious metals. The drawing of a decorated brooch from King Harry Lane seen in Figure 8.3 is one of these items and is dated between 40 A.D. and 60 A.D. Stead and Rigby (1989) describe the image as two birds (possibly magpies) confronting one another. Consulted ornithologist, James Fisher, suggested the birds may be engaging in wing-flirting in a pre-mating ritual. Another ornithologist suggested the birds shown on the panel may be domestic fowls participating in cockfighting (Stead and Rigby 1989: 95).

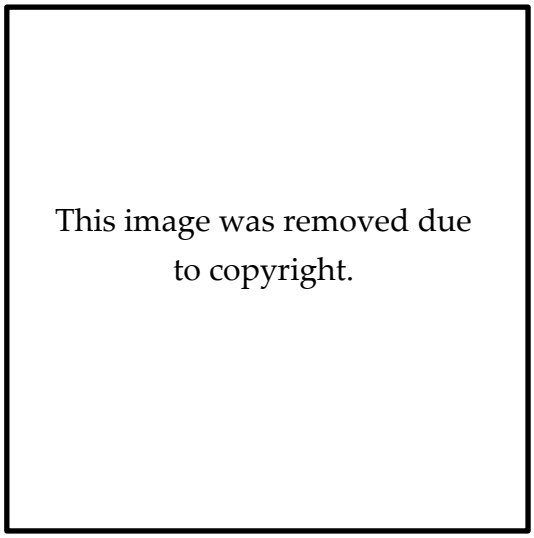


Figure 8.3: Brooch depicting Minerva and two birds, KHL Burial 240 (Stead and Rigby 1989: 336).

The shards (seen in Figure 8.4) are thought to have derived from three different bowls and are not part of funerary assemblages but from other locations within the larger Folly Lane complex. Shard C is described as depicting a female panther and another large stag dated to the mid second A.D. – third century A.D. and was found in Shaft AAE at the Folly Lane site (Niblett 1999: 279-80). Shard fragments D and E depicts large repeating panels with stags as well as a large hare and was discovered in fill of the cellar ALC at Folly Lane and is dated between mid-second century A.D. to late third century A.D. There is also a burnt Sard intaglio ring with the image of a stork or other long-legged bird in profile (from shaft ABZ).

These particular shards are highlighted to illustrate the attitudes of the living population towards other animal creatures which have been purposely excluded from the mortuary rituals. Interestingly there is no external environment depicted around the different animal species in the King Harry Lane brooch and pottery shards. The closest that any of the objects come to are constructed borders around the figures. It could be argued that the deer seen in shards D and E are meant to be interpreted as being placed within some sort of field or opening but there is not much else depicted in the images to suggest this.

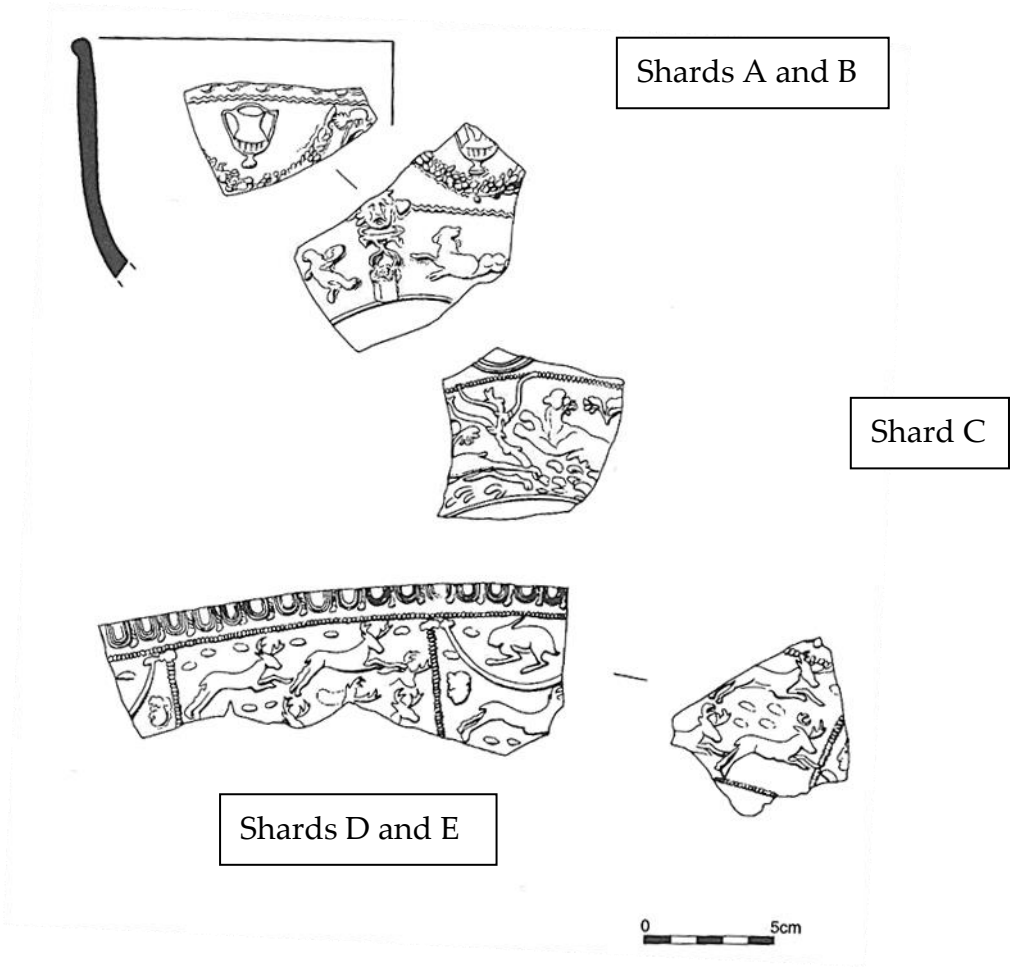


Figure 8.4: Decorated Samian ware with deer and rabbit motifs, Folly Lane (modified from Niblett 1999: 279).

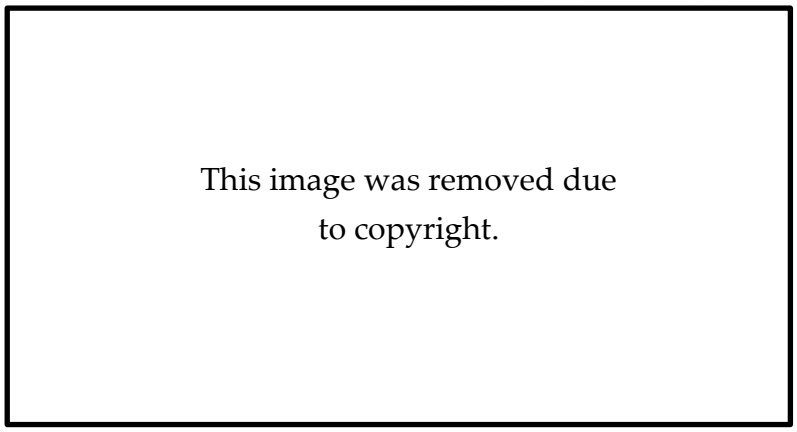


Figure 8.5: Two different styles of lion brooches (Stead and Rigby 1989: 331).

The second type of grave good found within the burial sites from Verulamium are objects which are formed to resemble a certain type of animal. At King Harry Lane, metal lion-shaped brooches were discovered (see Figure 8.5 above). These come in a more stylised manner than the other objects seen at any of the sites discussed here. A more realistic bird, made from clay and hollow on the inside suggesting it was a vessel used as a flask, was also been found within a burial at King Harry Lane. The drawing, seen in Figure 8.6 below, suggests the head was solid and it could have acted as a stopper, rather than a spout. Folly Lane also had ceramic bird found in Cellar ALC, which is thought to date from first century A.D. to second century A.D., along with a copper owl (unstratified) which was found after excavation with metal detector. The literature also suggested a bronze bird brooch was found in a burial at St. Stephens' Cemetery.

Interestingly, many of the objects that are seen as decorations in funerary jewellery and even the non-mortuary contexts from the Verulamium assemblages are depictions of animals which do not have a relationship with the people. Faunal species such as lions, snakes (pers. com Simon West) and deer are seen depicted on objects but are not found within burials from Verulamium in their physical forms. This suggests these species were likely to have human-animal relationships that were based on more of a mythological, imaginative, or popular culture view point rather than on physical interaction with the creatures.

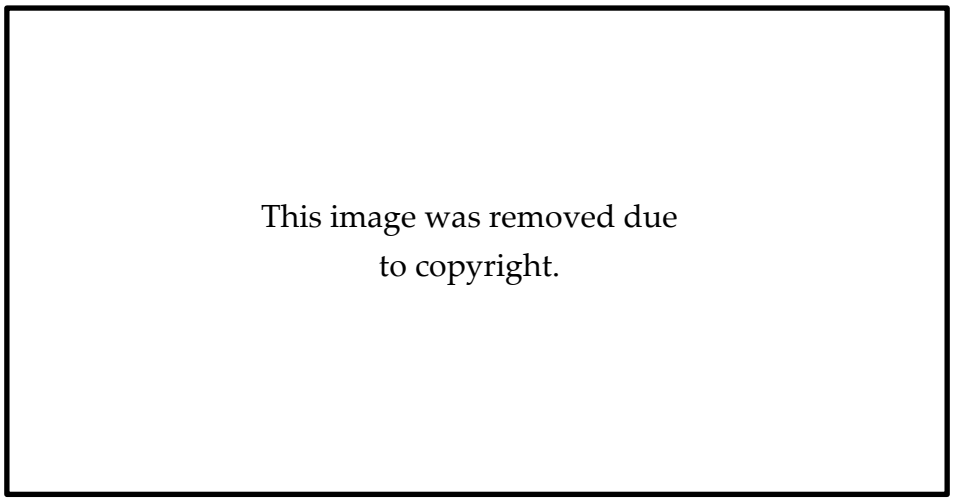


Figure 8.6: Drawing of possible pigeon-shaped clay vessel plus depiction of grave arrangement (object 9), KHL Burial 280, (Stead and Rigby 1989: 348).

In addition to being present through imagery, some animals were present through the use of their bones being repurposed as objects which were not explicitly connected to the animal or idea of what the animal used to be. Numerous examples of ancient peoples exploiting raw resources can be found throughout the history of every culture, bones after all can be thought of as a raw resource from which other objects can be made. In following Conneller (2004: 37-56) I suggest that there inherently would be a lingering connotation between the newly fashioned object and the animal from which the material derived. Given the nature of the Roman versus native mind-set it is more difficult to determine whether objects created from animal bone retained some passive sense of 'animalness' or whether, in fact, the objects in question could be seen as active participators in being able to harness animal agency and transpose animal characteristics to the person in contact with the object. Ingold's (2000a: 124) discussion of animistic societies is brought to mind, however, one must be careful to recognise that opposing world views were most certainly present during the period of this study. Not only were Roman pagan worldviews coming up against traditional native practices but also conflicts with early Christianity would have been present late in the first century A.D. As such the interaction between objects and their owners would have differed greatly throughout the settlements and burial practices presented in this thesis.

The King Harry Lane mortuary artefact assemblage includes 21 carved bone games pieces, several small bones (possibly bird) that were modified to make a belt containing a metal belt hook, fragments of bone dice and a bone flute. Likewise, the St. Stephens' cemetery mortuary artefact assemblage also contained carved bone items in the burials, typically as hairpins (N = 6). Bone hairpins (N= 10) were also found at Folly Lane along with bone needles (N = 2) and a bone round-bowled spoon found on the lower slope of the site which do not seem to be associated with the burials. It is unclear from the records if the hairpins or other objects depict any animal imagery like that seen at King Harry Lane (Figure 8.7).

Figure 8.7: Bone hairpin carved to resemble a ram's head, from a King Harry Lane burial (St. Albans' Museum).

Table 8.1 indicates a total 26 bone items and nine non-bone zoomorphic items were found across the four sites. However, there were only two burials (SS 90 and SS 162) containing both fragments of physical faunal remains and an additional item which could represent animals. This suggests there was a greater emphasis placed on the physical presence of the animal rather than a representation of the animal. However, in examining the animals present on the artefacts, it was found that the majority of images were those of wild animals which would have been harder to source skeletal elements from (i.e. lions and certain types of wild birds). Moreover, in following the ideas concerning ancient medical theories of humoral and elemental systems, the species physically present in the burials generally had greater connections to the wellbeing of the humans they were buried with (as presented through early medical writings and mythologies discussed in Chapter 6) than the species represented through other forms.

Site	*Presence of animal remains*	*Presence of modified animal bones as other objects*	*Presence of zoomorphic material (non-bone)*	*Site total*
Folly Lane	12	13	2	**27**
King Harry Lane	60+	6	6	**72+**
St. Stephen's	138+	7	1	**146+**
Cross Farm	5			**5**
Combined total	**215+**	**26**	**9**	**250+**

Table 8.1: Distribution of faunal artefacts.

8.4 The breadth of animal representation

After conducting a survey of site reports containing faunal remains in human graves, the occurrence of co-burials including physical remains of animals and animal representations was found to extend much further beyond the scope of this study than was originally considered. Individual sites throughout England have been found to vary, with some sites only containing a burial or two, while other sites have large numbers of burials and contain some portion of one or more animals. Moreover, certain animals have commonly been found to occupy human graves not in the form of actual skeletal material but as zoomorphic imagery on both non-bone material, and modified bones items.

Representations of rams, in particular, were found on a pot handle at Birchanger Lane, Essex (Medlycott 1994), in the form of figurines at Arrington, Cambridgeshire (Taylor 1993), as well as carved into bone hair pins from Linton, Cambridgeshire (Lethbridge 1937). Similarly, pipe clay figurines depicting horses and bulls were found at Godmanchester, Cambridgeshire, whereas mounted versions of the same animals were recovered from some of the King Harry Lane burials but were outside the timescale of this focused study. In addition, an ornamental flask decorated with a satyr's head (half man half goat creature) was also found at Godmanchester (Mays 1993; Taylor 1997). Other representations of animals include lions. Metal studs shaped to resemble lion heads were found in a burial from Little Walden, Essex (Hull 1963: 195). Images of lions are also

represented in the form of a casket decoration from a burial at St. Alban's Lindum Place, Hertfordshire (Freeman 1971; Wilson 1972: 329).

Location	Total number of sites	Number of sites with unmodified animal bones	Number of sites with modified animal bone	Number of sites with non-bone objects w/ zoomorphic imagery
Berkshire	2	2		
Buckinghamshire	2	2		
Cambridgeshire*	6	3	2	2
Cheshire	1	1	1	
Essex	6	5		2
Gloustershire	1	1		
Hampshire*	6	6	1	1
Hertfordshire*	5	5	1	
Kent	6	6		
London	1	1		
Oxfordshire	1	1		
Suffolk	1	1		
West Sussex	2	2		

*Table 8.2: Survey of sites containing zoomorphic imagery in burial artefacts. *some sites contained multiple examples of animal bone usage/motifs. See Appendix A9.1 for a detailed site list.*

8.4.1 Adding to the bigger picture with independent projects

Throughout the history of archaeology, objects have been a key feature which is used to define cultural groups. Projects like The Portable Antiquities Scheme does great work in trying to document more extensively the objects found by professional and amateur archaeologists alike. However, surprisingly, after conducting a search on their database, when zoomed into the St. Albans area there seems to be little to no data. It is thought, that, perhaps this thesis can add to the depth of the database in existence by adding the resources gathered in this research

location but also highlight a missing focus to the importance of animal-centric objects in Roman Britain.

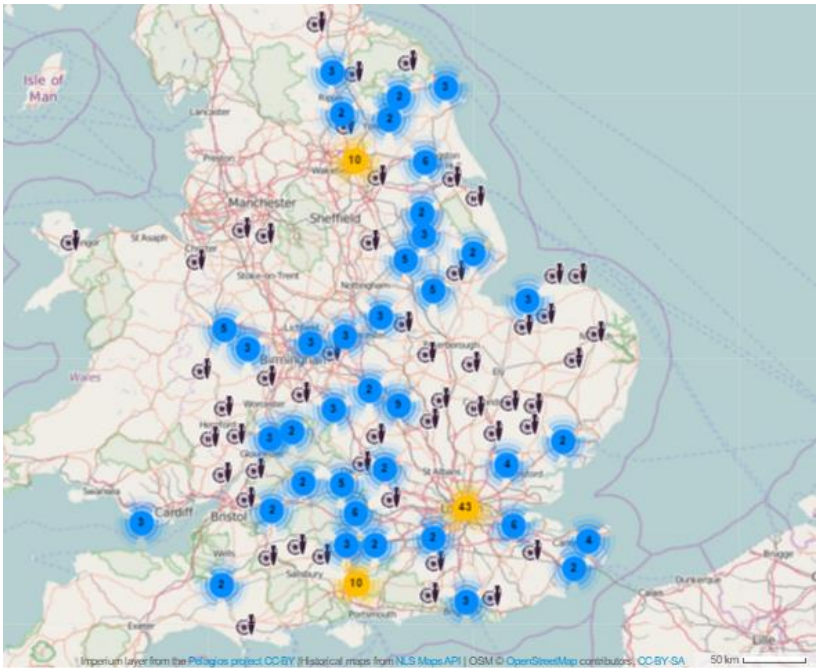


Figure 8.8: Results of a broad object search using "Roman" and "animals" as criteria for search topics on the Portable Antiquities Scheme website [www.finds.org – generated 11/3/16]. © The Trustees of the British Museum

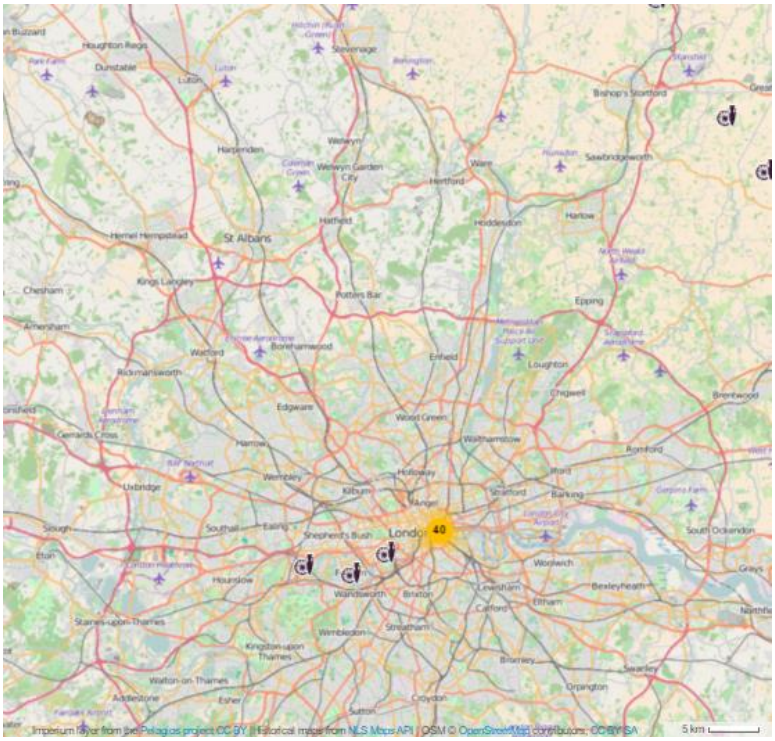


Figure 8.9: Zoomed in version of a broad object search, Portable Antiquities Scheme website [www.finds.org – generated 11/3/16]. © The Trustees of the British Museum

Due to the nature of the Portable Antiquities Scheme Project, most of the objects contributing to the lists are made out of metals (most often copper alloy and occasionally lead, or silver) while a few are made from made from animal bones themselves. While not depicting a particular animal in shape or decoration the object one must ask themselves if an association remained between the owner of the object and the animal from whence it came. Additionally, by reviewing these tables above one can see that brooches by far included the most frequent find along with also being the most diverse in the animals which were portrayed. Moreover, one can see that creatures chosen for depiction include domestic, wild and exotic.

The items creating this portion of the object database gathered through the ongoing research of this thesis come from domestic settlement sites rather than burial sites and therefore show a different side to the manner and extensiveness to which the people of Roman Britain were using animal imagery in all different aspects of their functional, religious and burial lives.

Object type	Human animal combinations			
	Human with boar head	Human holding animal	Human with sea creature (Neptune?)	Human head with animal ears (mercury?)
Finger ring			1	
figurine		1		
knife	1			
weight				1

Table 8.3: Objects reported to Portable Antiquities Scheme that have a combination of human and animal forms (See Appendix A9.2 for detailed object list).

Object Type	Animal Type			
	Sawfish	Dolphin	Crocodile	Unspecified
Bracelet		1		
Buckle		1		
Brooch	3	1?		
Figurine			1	
Finger ring				1
Vessel				1
Weight		1		

Table 8.3: Objects reported to the Portable Antiquities Scheme depicting aquatic or wetlands creatures (See Appendix A9.2 for detailed object list).

Object type	Bull	Goat	Cockerel	Hare/hound	Lion/ other feline	Horse	Deer	Ui bird	Dog	Boar
Amulet										1
Brooch	1			1+ 1 hare only	4	4	4	2	6	
Bucket handle	1									
Buckle						1				
Coin					1					
Cosmetic mortar	2									
Cosmetic pestle										
Figurine	2	8	4			1	1		3	
Finger ring		1					1			
Folding knife				9						
Furniture fitting					1					
Hair pin					1					
Harness fitting							1			
Knife				5		2		1	2	1
Mount						1	1			
Pin								1		
Spoon						1	1			
Staff										
UI object										
Vessel	1				2			1	2	

Table 8.5: Objects reported to the Portable Antiquities Scheme which depict mammal forms (See Appendix A9.2 for detailed object list).

8.5 Conclusion

This chapter has shown us that not only are animals present through objects in burials (i.e. the use of decorative motifs, purposefully shaped figurines, and the modified use of animal bones as a raw material) but also that there is a difference in the type of species being seen between those physically present (i.e. skeletal remains) and those not. The animal species present in these sorts of inclusions, more often

than not, tend to be exotic or wild species that no members of the community would have formed close relationships with because they would not have encountered them on a daily basis. Instead, perhaps, their encounters with these more exotic/wild species were disseminated through local mythologies or stories from others, thus entered into the cultural worldview present at Verulamium. As these species tended to be more exotic, it could be that their presence in the burial as a non-bone object made up for the inability to obtain items from the original creatures. However, it is certain that most times the species present within the human burials in physical form were domestic in nature and their bones could be accessed more easily than that of an exotic creature. While there is a laundry list of reasons behind why objects make their way into burials (i.e. as equipment for the afterlife, inalienable property, confirmation of prestige, indicators of rank/status/identity, metaphor, gifts to the deceased/deities, remnants of the funeral feast, disposal of polluted items, for the protection of the living/dead, for purposes of forgetting) there is a general trend amongst scholars to make connections between the physically present and those whom have been called upon through representation of animal form.

9 Chapter Nine: Animals and evidence (or lack thereof) for mortuary feasting

The specialisation of pottery analysis, much like the rest of archaeology, has long hinged on debates regarding production and use as evidence for a population's relative 'primitivism' or 'modernity' (Greene 2005). In the field of Roman archaeology, particular interests surround the gathering information regarding pottery and other ceramic usage in order to create a model to describe trade economics. However, in following Greene (2005) I argue this limits our view to what we think we *should* be able to ascertain from a given object, rather than what it *does* tell us. In furthering Greene's (ibid.) broad overview of what can be found regarding pottery analysis I wish to focus in on what ceramic items have to offer in the understanding of funerary cultural practices, especially in regards to the concept of feasting and table arrangements.

Typical evidence used for the identification of mortuary feasting includes: (1) animal bones with evidence of preparation or consumption (i.e. butchery marks, human and/or animal gnawing), (2) evidence of tableware (i.e. cups, bowls, platters, utensils), and (3) charred or burnt bones (but not typically with the degree of burning associated with cremation fires) (see Hamilakis 1998). Chapter 5.7 addressed the presence of preparation and consumption evidence and found that for both inhumation and cremation cases of human-animal co-burials there were adequate levels of protection against wild animals such as dogs, cat or rodents having access to either the deceased human or faunal remains.

Additionally, it was there was very little evidence to argue for human-induced fracturing of the faunal remains prior to their eventual inclusion on the pyre and/or burial which suggests that marrow extraction or meat preparation for cooking did not take place. Chapter 5.5 offers further supporting evidence in the form of bone colour changes that suggests the faunal remains were not likely to have been burned in a secondary event away from the human recipient of the crematory practice but rather the individuals (human and animal) would have

undergone the process together. What has yet to have been discussed is the evidence of so-called funerary tableware in the St. Albans burials and what impact that has on the ultimate interpretation for the human and animal individuals involved.

9.1 The multiple functions of pottery: Life versus death

Archaeologists are aware of the vast usage of ceramic vessels within Roman communities: as cooking vessels, as platters, as grain containers, wine and fish sauce transportation devices, etc. Therefore, it is unsurprising that archaeologists continue to think of these vessels as containers when they appear in funerary rituals. That is, after all, the ultimate function of a vessel. However, what must be considered is how a vessel in life is then transformed into an appropriate container for deceased individuals whom have undergone cremation. Romano-British individuals inhumed often received some sort of purpose-built container, why was this not the same for cremated individuals.

Stead and Rigby (1989: 201) attempt to highlight patterns for the use of certain vessel forms that served as a funerary urn from those that were relegated only to the use of accessory vessels (see Table 9.1 below). However, they concluded that this was nearly impossible for the Romano-British assemblage as nearly every type of vessel found within the burials as an accessory vessel had also served as an urn at least once. Oddly enough the types of vessels which had a necessary practice in life (cooking pots and some storage jars) were found to be absent as repurposed urns. The authors have suggested that wider-necked vessels seem to be chosen more frequently than narrow-necked vessels as they would have been easier to fill without causing further damage to the remains (Stead and Rigby 1989: 201).

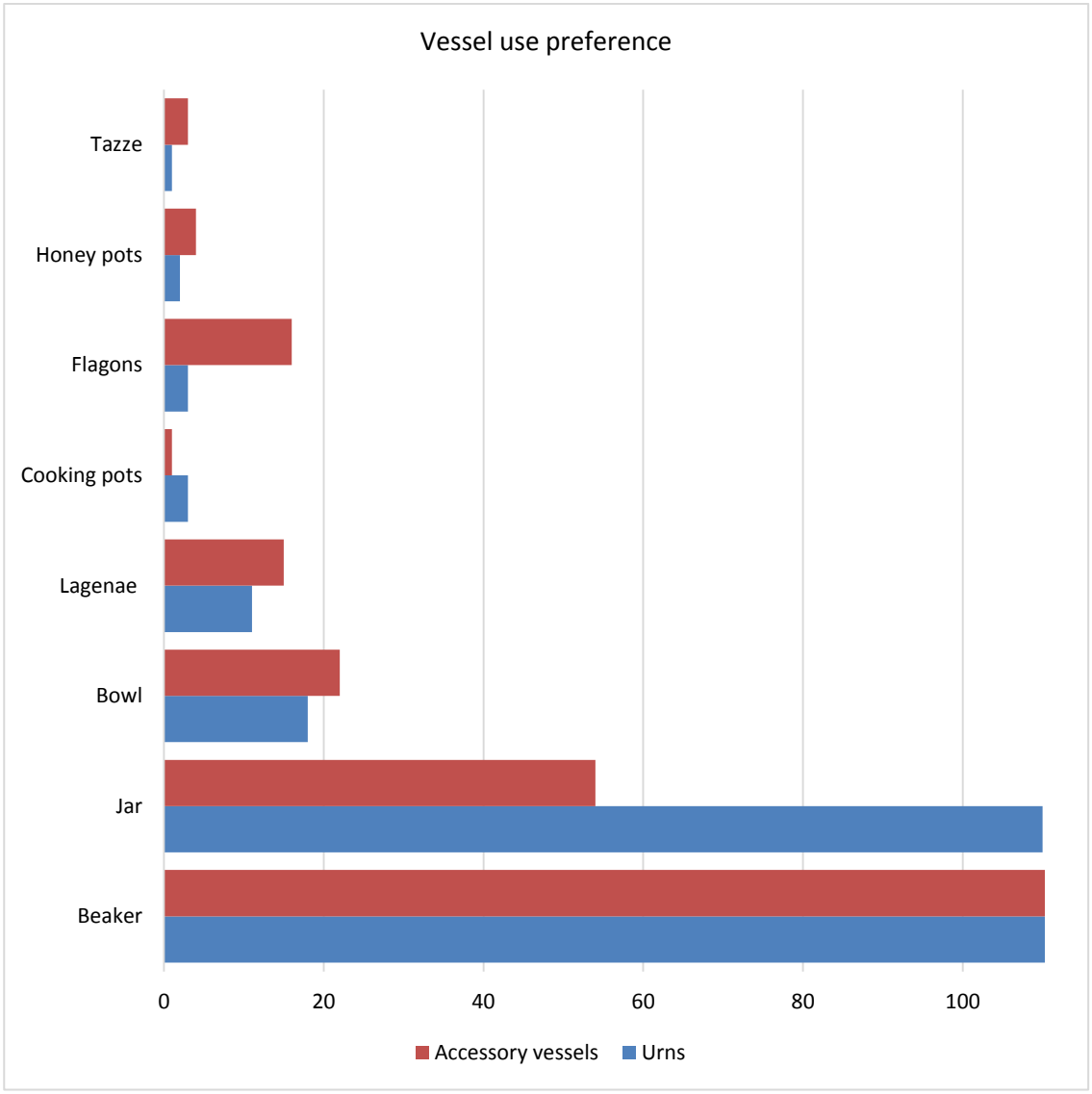


Table 9.1: Preference for vessel types used as urns within King Harry Lane burials (modified from Stead and Rigby 1989: 201).

According to Cool (2006: 53) some groups of wealthy native individuals in the early first and second centuries A.D. were buried with what seems to be a meal offering complete with serving vessels and utensils. She cites one particular case from Winchester in which a young pig was found on a shale tray together with a spoon and knife dating to the end of the first century A.D. (Biddle 1967: 230-45). Cool (*ibid.*) describes the adequate place setting as containing ceramic cups, and shallow bowls. The author also highlights the fact that it was not uncommon to see up to four individual place settings within a single burial and seems to easily explain the presence or absence of utensils with the notion that some groups of

individuals would have eaten with their fingers or used bread to mop up the juices rather than use cutlery.

Case studies done by Millett (1979: 37-9) and Evans (in Booth *et al.* 2001: 368-74) have shown that the classes of vessels associated with individual place settings (i.e. cups, dishes and bowls) in assemblages decline to the proportion of jars being included over time. Cool (2006) argues this could be suggestive of a more communal presentation and sharing of food rather than individualistic eating and drinking regiments. Although Britain was far from a homogenous culture, detailed studies of well-dated archaeological sites from the North suggest rural sites favoured the inclusion of jars, while military and urban sites tended to include more dishes and bowls (Cool 2006: 54). Other scholars have used the proportion of jars on a site to be a key feature of whether the people were Romanised or not.

Unfortunately, the material catalogue for the pottery assemblage of St. Stephen's cemetery was not very descriptive with the majority of pottery being labelled as "non-specific" (N= 98) while only one flagon form and one amphora form was recognised (McKinley, unpub.). Descriptions of ceramic pottery were non-existent in the Cross Farm report; however, the author does mention two glass jars. Niblett (1999) and Stead and Rigby (1989), on the other hand, include extensive catalogues for Folly Lane and King Harry Lane (see Tables 9.2 and 9.3 for mortuary pottery assemblages from the same burial contexts from which the skeletal material originates).

Niblett (1999: 191) describes the presence of "six to thirteen platters for ritual use" found at the bottom of a so-called "ceremonial funerary shaft" at the Folly Lane site. Here she describes a single platter as having unburnt bird bones in situ but does not reference any further evidence or links as to its purpose in the shaft. The author describes similar occurrences in two burials at Baldock and suggests as much as 17% of the pottery assemblage at King Harry Lane was for ritual use. The material which I examined was only that associated with the burials themselves, but it is not surprising to find evidence of ritual feasting and ceremony elsewhere

within the complex of Folly Lane. Particularly, as the author also notes evidence of an early Roman temple within the site as well.

In looking at the pottery assemblages from the burials in and around Verulamium it becomes clear that a wider variety of pottery is included in the graves besides those Cool (2006) describes as typical of place settings. Secondly, there is a distinct absence of cutlery beside the single example of a spoon from King Harry Lane (Burial 27). Lastly, none of the co-burial examples that included vessels associated with feasting practices were found to have the faunal counterpart placed deliberately within or on the ceramic vessel which was separate from the vessel which contained the deceased human individual.

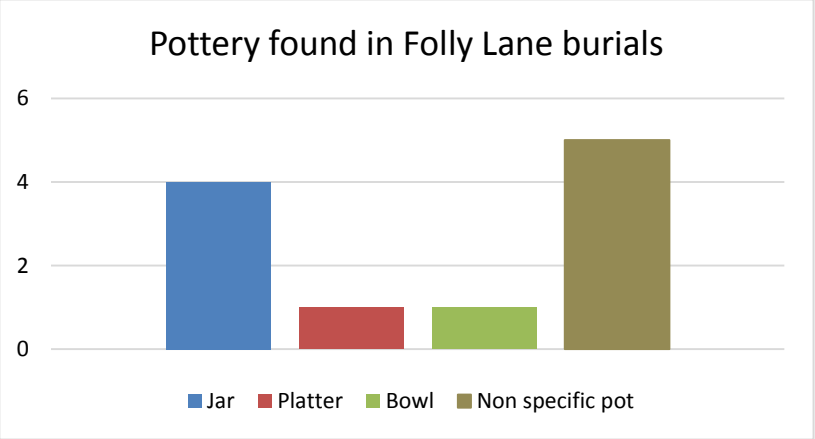


Table 9.2: Tableware vessel forms from Folly Lane (see Niblett 1999 for data).

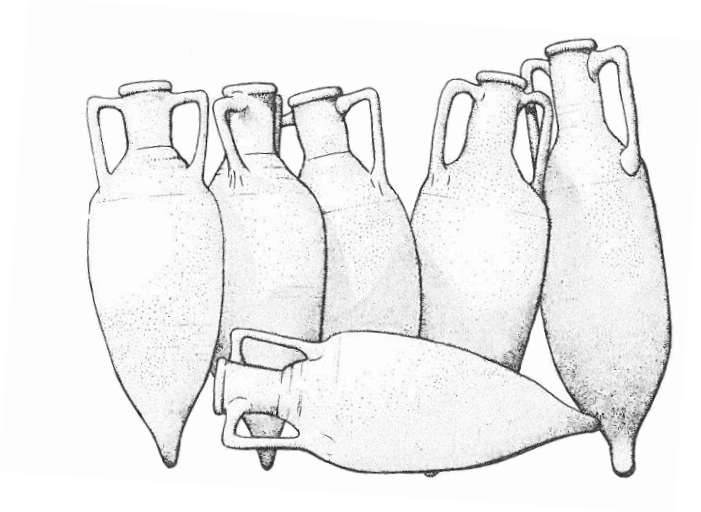


Figure 9.1: Samian amphorae from the funerary shaft at Folly Lane (Niblett 1999: 184).

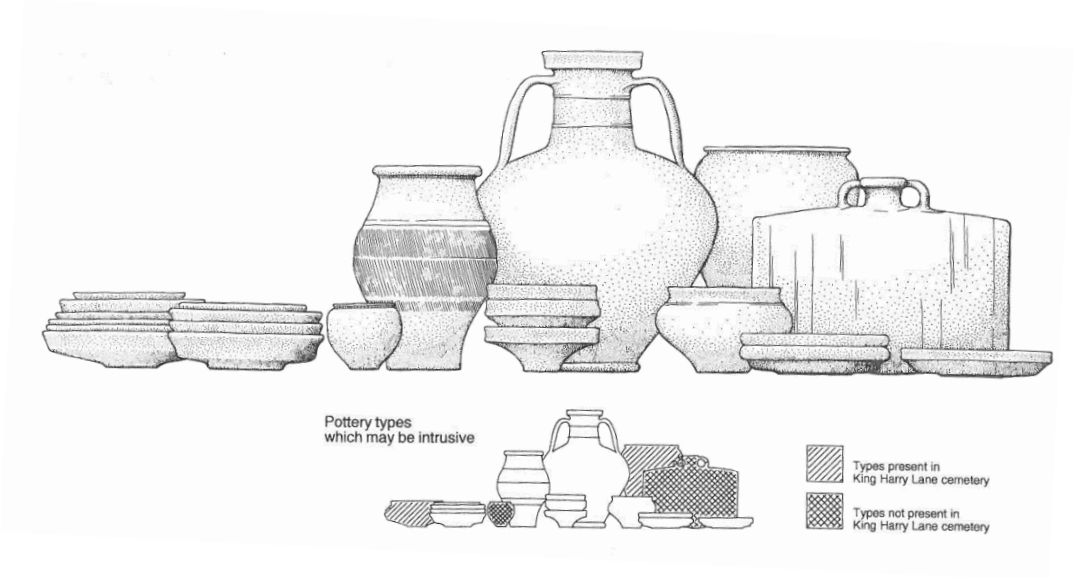


Figure 9.2: Pottery found in burials at Folly Lane (Niblett 1999: 184).

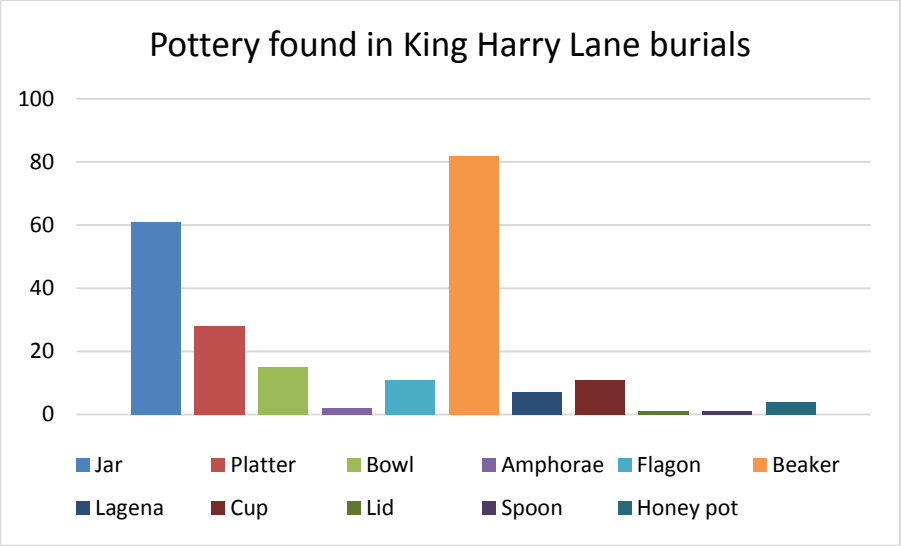


Table 9.3: Tableware from King Harry Lane burials (see Stead and Rigby 1989 for data).

9.2 Addressing animals as food items

In turning to this notion that faunal bones actually do represent joints-of-meat or foodstuffs as so many authors suggest, I believe it is necessary to first understand the diet of a Roman Briton and the role meat consumption would have had within the Roman and non-Roman communities. It is known that the availability of resources often shapes the diet of the living community and gives significance to certain species of animals over others. It has been suggested that most people of the Roman Empire would have consumed up to 70% of their daily recommended diet in the form of cereals and legumes. For urban populations and military units this often took the form of breads (Garnsey 2000: 681). Meat, therefore, was most likely seen as a luxury item rather than as a staple.

When it comes to understanding the faunal records from reports as they stand, I find the labelling of faunal fragments as joints-of-meat problematic. One must have considered whether the faunal bone fragments observed within burials can actually be assessed as having originated from particular joint locations of a single individual from a species or if, in fact, they represent a multitude of skeletal areas and species. In order to address this question, one must identify the bone fragments themselves within the overall skeleton, which can be particularly difficult

when working with cremated remains. Moreover, it must be asked whether the skeletal zones, represented by each species, have any particular significance to the overall burial rite. Chapter 5.3 clearly showed that the skeletal areas in which the faunal material originated from was widely varied according to species and was not focused at any particular joint section of the shoulder or pelvic girdles.

Previous research commonly cited throughout various archaeological and anthropological literatures seems to draw from Binford's (1978) ethnographic study. Here he creates a ranking scale using nutritional value to delineate a high versus low quality cuts while identifying the bones associated with those cuts as 'meat zones'. The zones are as follows: major meat bearing bones (1) which were considered to produce higher quality meats surrounding the major upper and lower limb bones as well as upper torso region. Minor meat bearing elements (2), on the other hand, were considered to produce lower quality cuts of meat (including the neck and lower portion of upper and lower limbs) which theoretically would be sold cheaper and thus have some reference to socio-economic status (Armitage 1984: 26). Finally, terminal limb elements (3) could be considered waste or off cuts from primary butchery as they included the head, hands and feet. In some cases, such as in sheep and smaller animals, terminal limbs might be left attached to the hide rather than removed (Seetah 2004). Immediately, this sort of division/ categorisation of meat zones produces problems as it is most certainly culturally bias. It is well known that in many cultures, feet or hooves of pigs and chickens/ other poultry are served as delicacies while other cultures would never consider eating the same product out of disgust or the perception that the particular part in question is somehow non-edible. While Binford's (1978) work may be applicable to the North American hunter-gatherer population he worked with, it is certainly not applicable to other modern populations let alone ancient Romano-British peoples.

Despite the shortcomings with the previously mentioned method, the prospect that certain cuts of meat would be reserved for special consumption (i.e. birth, marriages and funerals) brings us back to the species and variation in skeletal

material found in the grave. The animals involved in this special consumption would have taken on particular significance defined by the culture's preference for certain types of meat (i.e. preference for pig meat over cattle or sheep to be discussed throughout Chapter 10). It can be assumed that, generally when sold at market, the meat would have been broken down into more easily managed cuts. However, this is not to say that for smaller species (i.e. chicken) or younger species (juvenile pigs or lambs) would have been sold whole. This then leads directly into the question of the sourcing of products (animal carcasses) that were intended for funeral use. Would family members retrieve the faunal material intended for cremation and eventual burial from the same location one would purchase meat items to be consumed in daily life?

When examining the frequency of faunal remains located at each of the different sites analysed in this thesis, it becomes obvious that the majority of individual species were not only represented by a generally small number of skeletal elements but also varied from burial to burial. While some burials included a single animal species others included more than one. Likewise, where one burial might include fragments of skull, humerus and femur other burials might include only a few teeth. However, the data outlined in Chapter 5.3 generally suggests that pigs and chicken were commonly represented by any number of regions of the body including, head, fore/hind limbs, and/ or torso. Cattle, on the other hand, were only represented by parts of the skull, a few teeth and in some cases, ribs. Sheep were represented by the least amount of fragments per burial event with only teeth or a few fragments of long bone. This sort of distribution, however, could be in part due to the destructive nature of the cremation pyre as well as the nature of post-burn collection of remains for burial. But it most certainly does not fulfil this idea of skeletal fragments being a representation of a joint-of-meat.

Therefore, it can be said that there was no particular pattern of the skeletal regions to include for each individual species and furthermore, it seems there were no set rules about how many species were to be included or a minimum number of

fragments to be included. Moreover, the data seems to suggest the speculated groupings of skeletal fragments are not from a singular joint (for example the ball and socket joint of the pelvis and femur), rather it suggests a varied range in the 'cuts of meat' which were included. With that being said it is entirely possible that several 'cuts' were included in the same burial event. It is highly likely that a portion of the animal in question or other individuals within the same species could have been used for feasting purposes while certain portions of the animal are interred with the dead.

However, the point in question needs to closely examine the relational aspect of the faunal remains, whether the skeletal fragments were fleshed or defleshed, in relation to the positioning of the human corpse. It was established earlier in this thesis (through the colouration discussed in Chapter 5.5) that the majority of faunal remains entered the burial 'lifecycle' at some point before or during the lighting of the cremation pyre. Following this event, logistically there would have been some 'cool down' period in which members of the family, perhaps close friends or maybe even the funeral workers would have sorted amongst the ashes, collected the fragments and placed them in an urn for secondary burial. At this particular event, recognised in the unstratified mixing of human and animal remains, the human and animal bones seem to not have been actively separated either during cremation or post-burn collect for internment purposes. While archaeologists may never know if there was any true intention behind this practice, the pattern of circumstances does beg the question- why? Additionally, in support of intentional human-animal co-burial, there does not seem to be any contemporary literature calling for or going against such a practice. Of course this may have been because, either the practice was well known and accepted, or it simply was down to personal preference.

9.2.1 Animals and their place in feasting rituals

In turning attention back to the animal side of this relationship between food and pottery, the first and foremost hypothesis that needs to be properly address in this discussion is the validity of regarding the presence of faunal remains in burials

is as items of food. This hypothesis is difficult to tackle as it covers a wide variety of variation in burial practice as well as the commemoration of the deceased- both immediately after the burial and in future celebrations of lost life. The first step in understanding the material is, perhaps, where to look for evidence of feasting in the first place. Just because faunal skeletal remains have been found in burials, does this mean it should be automatically connected to foodstuff and feasting?

One point that, seemingly, has been overlooked in the literature is the actual state in which the faunal remains appear in these burials: are they unburnt, show signs of cooking or have they been cremated? Each of these states relay very different information about their pre-burial treatment. In cases where faunal remains are unburnt, and perhaps uncooked, suggests that the meat attached to the bones was raw at their point of inclusion into the burial; if in fact any meat was attached at all. One can assume, then, the animals from which the bones came were not actually eaten by the members of the funeral party. Cooked bones, which show signs of having been prepared through roasting, boiling or some other method, were more likely to be intended for human consumption. It is more difficult, however, to be able to recognise if cooked flesh was still attached to their bony elements at the time of interment. Similarly, to cooked bone, one must question if flesh was or was not attached to bones at the time they were cremated.

As discussed previously in Chapter 8.5, cremation can occur to varying degrees and may be influenced by the attachment or removal of flesh prior to undergoing extreme and prolonged burning temperatures. The data outlined in that same section suggests that the majority of the faunal remains recovered from the sites in this study underwent burning at high temperatures which correlate with the cremation process. There were no cremated faunal deposits included in human inhumation burials. On the rare occasion faunal material was discovered in inhumation graves and seemed to be lacking and evidence of temperature–based changes suggests that the animal flesh was either raw or just cooked. However, Folly Lane Burial 26 contained numerous faunal fragments which seemed to display

a wide variety of treatments including high and low temperature charring (See Appendix A12 for photo catalogue).

What is not so obvious, however, is whether or not there was any intent for the actual consumption of meat for the faunal material or if the consumption was meant to be more symbolic in nature. While none of the non-human mammalian bones from the Verulamium sites contain any evidence of butchery preparation it remains unclear as to whether or not evidence of such preparation would survive on the bones post-cremation. Assuming that the flesh was not attached to the bones as they were undergoing cremation, would validate the presence of the torsion fractures found amongst some of the domestic fowl/unknown bird material which seem to suggest breakage occurred to dry bones (i.e. no flesh attached). Experiments carried out by Baby (1954), Binford (1963) and Thurman and Willmore (1981) suggest there seems to be little evidence to distinguish whether the faunal material was fleshed or recently defleshed as the type of fragmentation and colour changes are fairly similar. However, the same experiments have found differences between green bone and dry bone (where the defleshing took place long before any other event took place). Flesh not only acts as a protective layer between the bone and the flame but can also act as an accelerant, due to the nature of fatty tissues, creating differences in temperature resulting in a wider variety of colour changes amongst the bones of a single individual than they would of a defleshed skeleton (Schmidt and Symes 2008).

When cremated, dry bones exhibited longitudinal splitting and superficial checking of the external surfaces as well as less evidence of warping. In contrast, those cremated with flesh still attached displayed considerable warping, transverse fractures (frequently in the form of a curvilinear pattern) and more irregular longitudinal splitting. The extensive degree of fracturing and warping among the faunal remains examined during this study would suggest that all bones (both human and animal) were "green" rather than dry prior to entering the cremation process. It is not certain if the animal flesh would have been raw or cooked prior to

being placed on the pyre if in fact it was still attached at all. The next question to be addressed then is what was the purpose of including animal remains in the cremation part of the burial "lifecycle"?

Some suggest that the fire could have acted as the opportune disposal method for food refuse associated with the feasting portion of the burial ceremony. Even by Roman standards, the notion that people would do this seems outright rude. In essence, it would be like throwing a paper plate or animal bone into the coffin or grave cut alongside the relative or friend you are burying. Therefore, would it not act as a sign of desecrating the deceased's burial rite?

9.3 Animals and their appearance in non-funerary contexts

This section proposes the question about the validity that the same rituals of animal sacrifice or feeding the gods was taking place both at places which commemorate the dead and those with temples and altars that are creates spaces in which the members of the community had specifically devoted to the sacrifice of animals and cult rituals. Fulford (2001: 199-201) highlights that there has been a growing awareness on behalf of archaeologists in accepting the diversity in expressions of ritual behaviour. This includes the accepted identification of religious practices associated with shrines or temples, meticulous investigation of burials and the accompanying material and environmental rituals associated with bereavements and death and consideration of hoards of coins and other votive deposits (France and Gobel 1985; O'Connell and Bird 1994; Fitzpatrick 1997; Barber and Bowsher 2000; Stead and Rigby 1989; Esmonde Cleary 2000; Cunliffe 1988; Millett 1995). Additionally, archaeologists are increasingly alerted to the diverse materials which are found in wet deposits such as bogs, river beds or man-made wells (Ross 1968; Esmonde Cleary 2000). According to Fulford (2001: 201) in order for something to meet the definition of a ritual, the empirical evidence must both be (1) repetitive in nature and (2) display 'irrational' characteristics.

It was established earlier that the inclusion of faunal remains in Romano-British burial traditions was likely to be as faunal individuals who were selected for a specific purpose to fulfil the society's ritualistic needs rather than dying of natural causes and then disposed of in this manner. Chris Fern's work (2012) offers the most common impression for differentiating the killing and burial of animals suggesting that animals which have been buried whole or in the vicinity of humans, often within a definable cemetery, have to be assumed to have been killed for a deliberate purpose rather than expiring naturally- in short a sacrifice.

A sacrifice can generically be defined as giving up something for the benefit/consideration of others. In regards to human-animal relationships, a sacrifice generally would entail the ritual killing of a specific animal for a specific purpose. Social anthropologists have shown that there are many different types of rituals. These can be secular, religious, class-related, sex-related, personal etc. (Bell 1992; 1997; Humphrey and Laidlaw 1994; Kreinath *et al.* 2006). Although rituals are often a part of religious practices, we should be careful to not instantly equate ritual with the religious in the sense of our modern day understanding of the term religion. Likewise, the term is not always synonymous with burial practices as it is often thought of in the modern era.

According to Belayche (2007: 268-277), the portion given to the gods was typically made up of entrails (which include intestines, bowel, and other viscera) while the rest was consumed by the sacrificing community, suggesting that the sacrificial animals were also a part of the Roman diet. In following this division of meat, it is entirely possible that some portion of a sacrificed animal, whose portions were dedicated to the gods and were eaten by the community, also supplied some portion of themselves to the deceased for burial. To some extent, it can be proposed that the sacrificial animal was the link between that solidified a bond between the gods, the living community and the dead. In taking on this vital role upon death, it may be that the specific animals chosen to fulfil such a purpose received some sort

of elevated status within the community which enhanced the treatment of their remains.

Verulamium's temple lies on the south-eastern outskirts of the city away from the designated burial spaces. Upon excavation of the pits thought to be associated with the temple finds such as pine cones, small votive pots and increase burners were found alongside charcoal and animal remains. Wheeler and Wheeler (1936: 113-20) and Henig (1984: 113; 159) describe the species of animals to include large and small birds, pig, sheep and cattle. Interestingly, some of the bones were described as having been burnt or reached a calcined state. King (2005: 355-356) suggests the presence of such materials may be related to the eastern cult of Cybele and Attis. In essence, if these animals had their own altars and shrines dedicated to sacrifice at King Harry Lane, Folly Lane and St. Stephens- why commemorate additional sacrifices to the gods in a place of commemoration for the dead if that is all the animals, were seen as?

9.4 More than meets the eye

There were three objectives to this chapter. The first, being the relationship between objects and animals in burial. As discussed, objects often associated as containing food items are somewhat present to varying degrees are present in the cremation burials at Verulamium. However, there is a distinct lack of utensils and items which are typical of Romano-British place settings found in other locations, particularly further north than my sites. Additionally, there were no records/descriptions suggesting the faunal skeletal remains found within the human-animal co-burials from the Verulamium sites were actually prepared and placed separately from the human material in these separate vessels. On the contrary, the evidence, including a lack of butchery on most of the faunal species (except maybe a couple of chickens) suggest they were placed together prior to the start of the cremation burning process.

The second objective touched upon here (and is going to be addressed further in the next chapter), is this hypothesis that animals, deemed important in the living population, may not always enjoy the same status in death. Chapter 8 highlighted that more varied and exotic animal species were included in the form of objects while animals that were 'closer to home' so to speak, tended to be included in the physical form (i.e. skeletal remains).

Finally, the last point to take away from this chapter is that there are many more explanations available for the inclusion of animals in burials rather than just as food items. I believe I have shown that the majority of individual animals found in the burials from Verulamium were not just food animals but had deeper stronger connections to the deceased individuals they were buried with.

10 Chapter Ten: Comparing human-animal relationships in life and death

While this thesis has mainly focused on the animal remains found in association with human funerary practices, it is important to put that knowledge back into the overall context of the relationships people had with animals in life. As such, I will now turn my attention to the breadth of zooarchaeological research which has been carried out focussing on the agricultural/economic uses of animals in living communities. Similar to the biases found in the analyses of Romano-British death culture, the path of analysis for the living culture was fraught with its own problems – most often focusing on animal usage to identify a 'Roman' from a 'native' site (King 1978; 1999a; Grant 2000; 2004).

Morris (2010; 2011) brings to the forefront the manner in which scholars (namely Gilhus 2006; Grant 2000; Hill 1995a; Lauwerier 2002) approach the study and interpretation of zooarchaeological data highlighting difficulties when it comes to understanding and separating certain aspects within the field. In order to cope with this zooarchaeologists like Grant (1984), Hill (1995) and Morris (2011), have turned their attention to the ritual interpretation of Associated Bone Groups (*ABG*s), hoping to distinguish ritual deposits from agriculturally/economically derived faunal material. While I agree with the aforementioned authors that understanding a society's ritual/religious nature is as equally feasible as understanding its economic nature, I feel that we must not lose the connection between the two contexts. Therefore, I use this chapter to reflect upon the changes in the living communities within Roman Britain and connect those changes with patterns seen amongst the funerary practices highlighted in this thesis.

10.1 Changes in the faunal record through the progression of site categories

As can be expected, the longer an animal is alive and co-habiting with humans the stronger the human-animal bond is likely to become. Allen and Sykes (2011: 8) stress the importance in recognising this fact when it comes to

understanding the nature of an animal and how it permeates human cultural barriers. Sykes (2014) reminds us that whether as living animals or products the behaviour and properties of animals, (i.e. their appearance, sound, smell and feel), would have been key ingredients of the human experience which can inform modern archaeologists on the behaviour of ancient people. Equally important is the recognition that the animals, which populate certain landscapes today, may not have been the same breeds of species ancient people would have encountered in the past. As such, an open mind must be kept when classifying the presence of specific animals as local versus exotic to Britain and the impact that has had on their perception within a community.

10.2 The military and marking changes in diet

Bone data from early Roman military establishments suggest that inhabitants survived off of locally reared animals, such as sheep and cattle (Grant 2004: 371-392). Generally, these sites are known to have produced larger quantities of cattle remains than those seen at contemporary native settlements. The kill patterns suggest that the meat was often obtained from older adult or elderly cattle rather than younger members of the herd. Davies (1989: 187-206) and Webster (1998: 262-4) suggest this was because cattle were allowed to mature and become strong enough to participate heavily in the traction of cereal and vegetable crops which were a substantial part of the military diet. Additionally, Grant (2004) suggests that fully grown cattle would have been preferential for providing larger hides to be used for leather production required in larger than normal quantities by the military thus impacting traditional cull patterns.

Most prominently, King (1978, 1984, 1999a, 1999b) uses species ratio as a way of determining whether a group has undergone Romanisation or not. Namely, his examination focuses on military sites in which cattle and pigs are deemed more 'Roman' whereas sheep are seen as more 'native'. The author bases this conclusion on four main hypotheses. First, that the variation in faunal species in assemblages

were caused primarily by differences in human diet. Secondly, that the samples therefore revealed dietary changes in the population over time, between regions, and between different site categories. Thirdly, that social status affected the dietary patterns by site category and lastly, that these dietary changes could be detected through diachronic changes in the faunal assemblages.

While the evidence for greater use of cattle over sheep is used to distinguish Roman preference of diet for archaeological sites (Vinolanda, Caernarfon, Loughor and others) used by King (1999a, b), Grant (2004: 372-374) challenges this was the case for the whole of Britain by producing sites in which sheep remain high in numbers throughout the Roman period. This suggests that members of those communities procured what was most readily available rather than keeping with a particular tradition. In other words, Grant (2004: 376) suggests these sites reflect a continuing pre-existing husbandry tradition that was determined by the overall availability of resources rather than focusing solely on cattle raising. Native wild species such as red and roe deer, boar and hare are also found at many of these sites but generally in small numbers suggesting that they were not extensively exploited (*ibid*).

The rise in the utilisation of cattle was suggested by King (1978) to possibly have been related to the need to feed a large Roman army- which may have had a preference for beef. Albarella (2007), however, argues that this change was in fact small in comparison to larger, greater changes. Hamshaw-Thomas (2000) argues the change in taxa frequencies can be viewed as part of a more general intensification of agricultural practice rather than an indicator of dietary preference (Roman or not). The *Rural Roman Settlement Project* (ongoing) continues to try and shed greater light on this area of the past. So far, the project has amalgamated and catalogued an immense amount of faunal assemblages from all over the British countryside in attempts to produce a national livestock trend for the most frequent domesticates: cattle, sheep and pig (see online database created by Fulford *et al.* 2015).

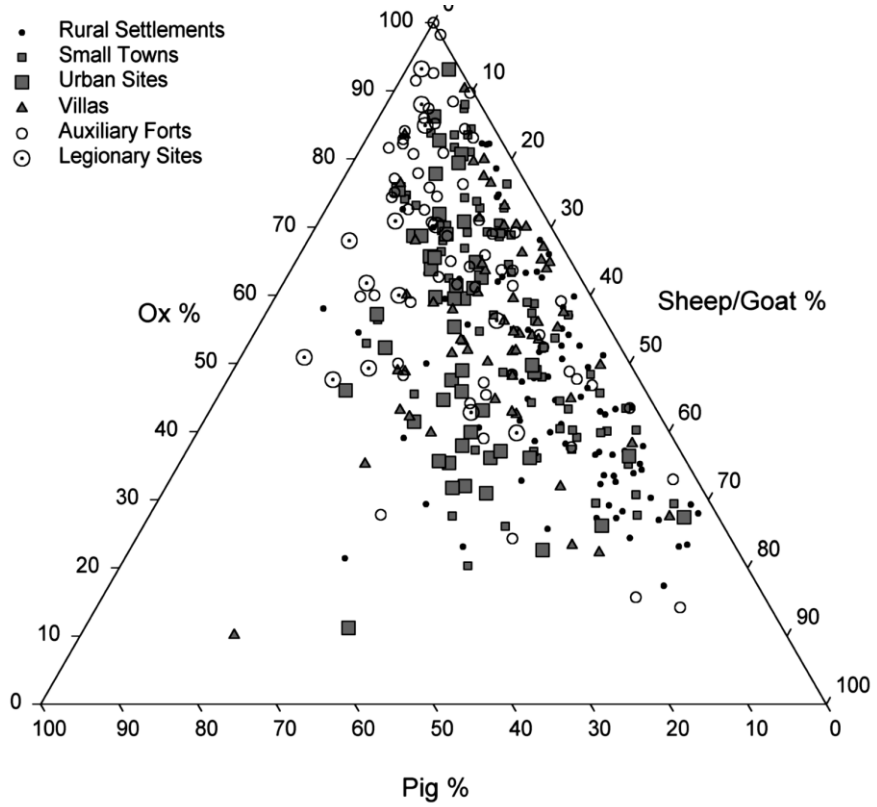


Figure 10.1: Triploid graph displaying various types of sites throughout Roman Britain (King 1999a: 179).

Site category	*No. of cases*	*Mean size of assemblage (NISP)*	*Percentage Mean ± Standard deviation*		
			Cattle	*Sheep/Goat*	*Pig*
Towns	50	1157	53.5% ±18.5	27.0% ±14.0	19.5% ±9.8
Vici	69	696	56.3% ±17.6	31.9% ±15.5	11.8% ±7.7
Villas	58	937	55.6% ±15.8	29.8% ±12.2	14.6% ±11.7
Rural settlements	90	1129	47.1% ±15.7	41.2% ±15.7	11.7% ±9.0
Legionary sites	16	639	63.5% ±16.8	14.9% ±11.2	21.6% ±11.0
Auxiliary sites	63	1028	64.8% ±19.7	22.3% ±17.2	13.0% ±8.4

Table 10.1: Statistic analysis of bone material from Britain (modified from King 1999: 180).

Martyn Allen's work within the Rural Roman Settlement Project (ongoing) validates the large scale analysis in which King (1978, 1999a, 1999b) suggests that

cattle remains become significantly more common throughout the country from the 2nd century to the 4th century A.D. When examining kill-off patterns between Iron Age and the Roman period in Britain, it seems that Iron Age sites tended to produce greater numbers of immature cattle than those dated to the Roman period. Middle and Late Roman occupied sites commonly produce higher frequencies of adult and elderly cattle. It is likely that this change follows the increase of using cattle as traction animals. Additionally, Allen (2015) suggests that the kill-off patterns for sheep remain fairly uniform throughout all phases suggesting that there was little to no change in the attitude towards the animal in either agricultural use or ritual significance.

Despite cattle being present in Britain as early as the Neolithic period, it was not until the establishment of Roman military settlements that there was an increase in demand for them. The Romans brought with them a demanding and powerful group of consumers to the native farming communities of Britain which possessed a limited capacity to produce surplus (Grant 1991: 483). The ability to turn cattle into a workforce changed that. Faunal assemblages from many early forts include higher proportions of cattle than was common at contemporary native sites. Interestingly, studies of the Roman military diet show large quantities of cereal and vegetable products but not necessarily meat (Davies 1989: 187-206; Webster 1998: 262-4), suggesting the requirement of a large cattle community was actually devoted to agricultural tasks not the production of meat. Moreover, where meat is concerned there seems to be a greater emphasis on the consumption of mutton rather than beef (King 2001).

The consumption of sheep, recognised through butchery evidence and selective skeletal refuse pits, along with a high proportion of sheep skeletal material on archaeological sites are considered to be evidence for pre-Romanised groups in Britain. Despite this notion by King (2001) that a full dietary change on local British sites would occur once Romanisation happened, the military garrisons would often

see a peace-keeping period post-invasion in which many towns would revert back to their pre-Roman diet.

Pigs also played a significant role in the military diet since they can produce large litters up to twice a year and are a source of rapidly replaceable food. Pork tends to preserve well and as such be of value to an army on the move (Grant 2004: 373-74). Archaeologists have used a higher than average percentage of pig bones as a defining feature for settlements whose inhabitants have access to privileged resources or who are primarily consumers rather than producers (Grant 2004: 374; Grant 1989: 142). The definition of a higher-than-normal proportion must be considered in context of the location in which it is found. In Italy a high proportion of pig bones might be 60%, whereas in Britain it could be somewhere around 20%. A British example of these similar findings at an occupation site can be seen from an early fort in Charterhouse, northern Somerset which was found to have pig bones outnumbering those of sheep (Gee 2001). All parts of the skeleton were found suggesting the animals in question were requisitioned locally and butchered on site rather than being imported.

Unlike the three previously discussed faunal species, chickens were not present in Britain for some time. They were a deliberate introduction into the local fauna, domesticated from the red jungle fowl native to South-east Asia (Allen and Sykes 2011: 16). Benecke (1993) and Poole (2010) state that the western spread of the species is widely accepted as having started in the Mediterranean by the eighth century B.C. and spread into central Europe during the next century. Despite not being able to attribute the introduction of chickens into Britain via the Romans, during the first and second centuries A.D. there does seem to be an increase in the number of chickens found in the archaeological record post- conquest (Allen and Sykes 2011; Hamilton 2000; Maltby 1997). Helms (1993: 3) suggests that it would seem unlikely that fallow deer, domestic fowl or any other materials brought from the 'outside' would have been viewed by the local inhabitants (or possibly the Romans for that matter) in a neutral light. Given the Roman desire for the unusual,

and as odd as it seems to modern people, it could have been that the domestic chicken was viewed as an exotic animal.

10.3 Difference in diet amongst civilian settlements

While some early civilian settlements developed out of pre-existing military establishments, others originated from settlements occupied during or before the Iron Age. It is believed that such beginnings may influence the types of animal species which members of any given community would have had access to. Interestingly, the town of Verulamium, as stated in Chapter 3, is not known to have military beginnings and as such may be one of the reasons cattle generally have a lower profile both in settlement and mortuary faunal assemblages.

It is likely that the demand for certain kinds of meat from non-producers of food, particularly from those in the military and many of the people living in the towns, must have put a significant demand on the rural population resources. Grant (2004) suggests the shift from one domesticate to another species focused-based husbandry would have required an increase in the size of one herd and an equal diminishing of the other in order for the economy to remain underneath the threshold of overall usage of available resources. It is also likely that such a change would have taken many years to achieve based on the implications of land use and crop cultivation, as well as farm architecture and organisation. This would have been particularly true of larger domesticates, such as cattle, which would have required greater access to larger areas of pasture land overlapping with the need of more land for crop cultivation to sustain human dietary habits. Pigs, on the other hand, would have been able to achieve greater numbers (both due to quick and multiple reproductions of progeny and a lower foraging area) quicker than cattle.

One such example commonly used to illustrate this is Silchester. Excavations of this Roman settlement started in 1890 and have been taking place since then. Investigated areas include the forum-basilica, Insula IX and the defences, all of which have produced faunal remains. The largest faunal assemblages came from

the forum-basilica and North Gate. Phases of material include: Very Early Roman (c. 40 A.D. - 125 A.D.); Early Roman (c. 125 A.D. - 200 A.D.), Mid Roman (c. 200 A.D. - 250 A.D.) and Late Roman (post c. 250 A.D.). All three major faunal assemblages are dominated by three major domestic species (cattle, sheep and pigs) discussed earlier in this chapter whereas wild fauna are scarce. Bone remains found in early Roman defensive ditches, suggest that cattle were dominant among the domestic species found at the site [cattle 66%, sheep 26% and pigs 8%; Maltby 1984]. Contemporary deposits from the town centre, however, give a slightly different view [cattle 48%, sheep 27% and pigs 26%; Grant 2000].

Faunal deposits in Romano-British towns such as Chichester, Winchester, Leicester and Lincoln have also commonly been used as examples for evidence of Romanisation as their faunal assemblages point to a centralization of the processing and distribution of beef (by way of faunal assemblages being dominated by cattle skulls and limb extremities) [Levitan 1989; Maltby 1989, 1994; Dobney *et al.* 1997; Gidney 1999). At Exeter and Lincoln, the slaughter and consumption of sub-adult cattle was rare from the first century A.D. onwards, suggesting the inhabitants allowed the cattle to grow into adulthood and be used for work purposes longer before being eaten (a practice that ensured a larger meat supply from each animal). Faunal remains found at Silchester and Leicester produced a wider range of kill-patterns than those found at Chichester and Winchester. While cattle deposits from the later Roman periods at those sites mirrored sites at Exeter and Lincoln (Gidney 1999; Grant 2000), sheep mortality profiles, on the other hand, included young and older members of the species. Thus it is likely that individuals were bred specifically for consumption while others were slaughtered later after having made contribution to wool and milk production. Interestingly, Grant (2004) notes very little differences in the frequencies of kill-off patterns in sheep between the urban and rural settlements.

When examining the faunal assemblages from towns, it must be remembered that certain species, particularly pigs, could have been raised and killed within the

urban environment while other species would have been raised elsewhere and then, perhaps already transformed into meat cuts, been transported into the urban centre from elsewhere. This of course would add to the lack of certain age groups being found within the faunal record. Dobney and colleagues (1997: 73) and Grant (2000) suggest that were there are a higher proportion of male animals to females from the same species or a particularly restricted age profile it is likely that the animal species consumed within one location was raised in an entirely separate one. Alternatively, animal species found to have a wide range of ages in a faunal assemblage would be indicative of possible animal breeding (Grant 2004: 380).

10.4 What these changes mean for the living population

Animal husbandry regimes can be studied by looking at age-at-death profiles of each species present in order to establish whether the primary emphasis was on meat, dairying, traction, hides or other secondary products. Despite certain species being kept longer for greater production of secondary resources, it is certain that ultimately the majority of domestic species within a community would be primarily eaten. Age data clusters have been used in the past to discern targeted culling strategies and any observed changes to these established patterns have been used by researchers as indicators of environmental, economic or social changes (Reitz and Wing 1999: 213). In essence, faunal age-at-death provides information about herd management. For example, high frequencies of young animals indicate that those species were likely used primarily as food items since they would not have had time to mature to a point where they would have contributed as much to secondary products as older individuals. In contrast, the slaughter of older animals within a species group would suggest that the animal's ability to provide/contribute to the secondary products (milk, traction, etc.) had diminished and they were no longer considered useful alive. Previous research has also highlighted the fact that males are more prone to earlier culling as only one male is needed to breed with many females.

Changes in the faunal assemblage can be prompted due to changes in the use of the animal most often motivated by changes in the social habits surrounding food. Much work has been done on the topic of the Roman diet (notably King 1978, 1981, 1991, 1999a, 1999b, and 2001) focusing mainly on the economical aspect of animals in question rather than the local social aspect. King (2001) explains that apparent shifts in eating habits tend to be motivated by a shift from a native to a Roman diet. While food (including delicacies and taboo products) is known to make up a large part of cultural identity within societies, this thesis does not aim to look at the Romanisation debate but rather to look at the level of familiarity ancient people had with certain items which may have been subsequently replaced with more exotic or foreign choices in their daily lives and see to what extent that was reflected in the funerary inclusion of these species.

King's (1999a, 1999b) works using sites from Britain show that high cattle and pig patterns correlated with the apparent 'Romanized' nature of the sites. Table 10.1 suggests there is a gradient towards a higher average of cattle and pig percentages that climbs in growing sequence from rural settlements, villas, to secondary urban centres towards urban sites, military and legionary sites (King 1984: 189-90; 1999b). King (1999a, 1999b) suggests this trend may have been due to the fact that site categories such as urban, military and legionary set a standard or base line for dietary practices (perhaps derived from Gaul and German practices). However, the author also thought that some degree of native dietary tradition would have also been preserved, particularly amongst the rural settlement areas which tended to display high portions of sheep in their faunal assemblages. Fishbourne, in particular, is amongst the number of British sites which possess high numbers of pig over other animal species (Grant 1971). Similarly, Braughing, Hertfordshire, which is thought to have been a high-status site during the Iron Age, may have retained that label during the Roman period of occupation due to similar high numbers of pig remains found at other high-status Roman sites. Connections

between what is discussed here and my sites will be made clear further on in sections four and five of this chapter.

10.5 How it compares to funerary data

In attempting to obtain comparable faunal data between funerary and settlement-based material it became clear that not all data was recorded and disseminated in the same manner. While some authors included NISP counts of individual species, others simply gave MNI estimations. This made it incredibly difficult to understand correlations between the frequencies of species found in both funerary and non-mortuary contexts. However, it is clear that certain species (dependant on site category) were used in both contexts throughout the Romano-British period. Previously it was indicated that cattle seem to be more frequently represented by higher numbers in domestic faunal assemblages. In contrast, mortuary-based faunal assemblages pigs seem to be found in higher numbers.

Period of deposit	*Site type*	*Cattle*	*S/G*	*Pig*	*Dog*	*Cat*	*Chicken*	*Horse*
Early R-B	Funerary (N=4)	6	16	85			39	
	Settlement (N=1)	51	37	10				26
	Villa (N=1)	914	603	696	104	2	56	124

Table 10.2: Species within faunal deposits per site type for Early Romano-British period (based on NISP calculation) (50 – 150 A.D.).

Period of deposit	*Site type*	*Cattle*	*S/G*	*Pig*	*Dog*	*Cat*	*Chicken*	*Horse*
Middle R-B	Funerary (N=4)		1				2	
	Town (N= 1)	105	107	75	6			20

Table 10.3: Species inclusion in faunal deposits per site for Middle Romano-British Period (based on NISP calculations) (150-300 A.D.).

Period of deposit	*Site type*	*Cattle*	*S/G*	*Pig*	*Dog*	*Cat*	*Chicken*	*Horse*
Late R-B	Funerary (N=4)							
	Town (N=1)	406	490	125	18			101
	Villa (N=2)	1037	570	337	309	17	39	180

Table 10.4: Species inclusion in faunal deposits per site for Late Romano-British period (based on NISP calculations) (300-450 A.D.).

Site type	*Cattle*	*S/G*	*Pig*	*Dog*	*Cat*	*Chicken*	*Horse*	*Deer*
Funerary (N=14)	27	41	61			35		3
Settlement (N=1)	234	470	92	14	2		13	1
Town (N=1)	234	472	92	14	2		13	1
Villa (N=3)	39	42	29	10	3	5	10	11

Table 10.5: Comparative sites with NISP done to compare between site types in Hertfordshire.

Tables 10.2 through 10.5, shown above, represent a portion of the sites from the Hertfordshire area, for which data was collected from Albarella and Pirinie (2008). Detailed site information can be found in Appendix A10.1. While other sites were more difficult to include in the comparison due to data being presented through using MNI only, the tables above show that (I) there were a wider variety of species identified in the non-funerary material than there was funerary-biased material and (II) the most frequently occurring species found in the funerary based material follows that of the main domesticates represented with the highest numbers in the non-mortuary assemblages. It is recognised, that while King (1999a, 1999b) and Grant (2004) suggest cattle to be the recipient of the greatest attention given by humans to animal species in life, especially in military settlements, pig (at least within the Verulamium urban centre) receives the most attention in the

mortuary sector for human-animal arrangements. Moreover, it is seen that certain species were not purposefully selected for burial during this period.

10.5.1 Animals as they appear and relate to one another within Hertfordshire

In an attempt to understand if the human-animal co-burial practice was widespread in Britain, other sites in and around Hertfordshire (which includes the sites which I have examined within Verulamium) and beyond were examined through secondary published sources as it would have been impossible to physically examine all material suggesting the existence of the practice. A very interesting and conflicting data set was discovered.

Sites	***Number of total burials on site***	***Number of co-burials***	***Percentage of co-burials***
Baldock: Walls field (Site D)	8	5	62.5%
Baldock: The' Tène' (Site F)	1	1	100%
Baldock: The 'Tène'	1	1	100%
Baldock (1978-94 excavations)	188	19	10.10%
Braughing 'A' cemetery	5	5	100%
Braughing 'B' cemetery	40	16	40%
Cross Farm	53	4	75%
Folly Lane	24	7	16.6%
King Harry Lane	185	39	21.1%
Skeleton Green	57	12	21%
St. Stephens	211	87	41.2%
The Grange, Welwyn	95	10	10.5%
Youngsbury, Ware	1	1	100%

Table 10.6: The distribution of human-animal co-burials in the Hertfordshire area.

Chickens in particular continue to be found in other burials outside the sites analysed in this study. The majority of chicken remains tend to be burnt under high temperatures associated with cremations. While the other sites are small in total number of burials as well as co-burials, it is important to note that the species does remain present. In addition to the identified chickens (seen in Table 10.7), the *other*

birds category presented in Table 10.8, may indeed have additional fragments that belong the species. Interestingly, the number of both total burials and co-burials tend to produce more chicken skeletal remains overall within the main settlement area of Verulamium than its hinterland counterparts do. Likewise, this also seems to be the case for St. Stephens' material for *other birds* frequencies when compared against another big site such as Baldock (Stead and Rigby 1986).

Sites	***Minimum number of individuals from the co-burials on site***		***Total number of co-burials on site***	***Number of co-burials with chicken***	***Percentage of co-burials for that species***
	Unburnt chicken	***Burnt chicken***			
Baldock: Walls field (Site D)	1	3	5	2	40%
Baldock: The' Tène' (Site F)	1	1	1	1	100%
Baldock: The 'Tène'		1	1	1	100%
Baldock (1978-94 excavations)	1 (egg)		19	1	5%
Braughing 'B' cemetery		1	16	1	6%
Folly Lane		1	7	1	14%
King Harry Lane		9	39	9	23%
St. Stephens		16	87	15	18.3%

Table 10.7: Human and animal co-burials with chicken remains present in the Hertfordshire area.

It is very visible that for Baldock 'The Tène' and Baldock Site F, the frequency of co-burials of a certain species are skewed due to the small number of burials to co-burials and total co-burial to non co-burial with certain species ratios. Out of the eight sites examined with chickens included as part of their burial rite, Baldock

Walls Field (Site D) shows a strong frequency (40%), however, this may be swayed by the low total number of human burials. On the other hand, St. Stephens' Cemetery, which is a larger site, shows more similar frequencies of chicken within the human burials to those found at Folly Lane which is a much smaller site.

Moreover, these two sites seem to show further similarities in the frequency of other birds, most of which remain unidentified due to lack of distinguishing traits. At the other end of the 'frequency spectrum scale' are The Grange and Baldock (1978-94 excavations) which represent unidentified avian species with only about 10% of their mortuary faunal assemblages being taken up by this group.

Sites	***Minimum number of individuals from the co-burials on site***		***Total number of co-burials on site***	***Number of co-burials with birds***	***Percentage with species in co-burial***
	Unburnt birds	***Burnt birds***			
The Grange, Welwyn		3	10	3	30%
Baldock (1978-94 excavations)		4	19	4	21%
Braughing 'A' cemetery		4	5	4	80%
Braughing 'B' cemetery		3	16	3	18.7%
Skeleton Green		4	12	3	25%
St. Stephens		26	87	26	30%
Folly Lane		2	7	2	28.5%
King Harry Lane		1	39	1	2.5%

Table 10.8: Human and animal co-burials with "other bird" present in Hertfordshire (mainly cremations with occasional inhumations).

Pig (Table 10.9) is another species commonly present within the Hertfordshire region, with King Harry Lane (N= 30 fragments) continuing to dominate the number of individual fragments per species. However, in frequency percentage King Harry Lane and Baldock Walls Field (Site D) are not that far from

each other with 74% and 60% respectively. Additionally, St. Stephen's cemetery and Folly Lane have higher quantities of pig skeletal material than the other locations but overall, do not necessarily possess greater frequencies of human-animal co-burials than other sites. As observed in the previous breakdowns of chicken and bird, a lack in individual fragment numbers does not necessarily mean a low frequency of occurrence for a certain practice. This is particularly true for sites that display very low burial numbers but many of those may have animals with them whereas a larger site may have just as low a number of occurrences for the same burial practice.

Sites	***Minimum number of individuals from co-burials on site***		***Total number of co-burials on site***	***Number of co-burials with species***	***Percentage of co-burials with species***
	Unburnt pig	***Burnt pig***			
Baldock: Walls Field (Site D)	2	1	5	3	60%
Baldock: 'The Tène' (Site F)	1		1	1	100%
Baldock: The 'Tène'	1		1	1	100%
Baldock (1978-94 excavations)		2	19	2	10.5%
The Grange, Welwyn		2	10	2	20%
Folly Lane		9	4	3	25%
St. Stephens		13	87	10	11.5%
King Harry Lane		30	39	29	74%

Table 10.9: Human and animal co-burials with pig from Hertfordshire.

Sheep are the most frequently present of all faunal species found within burials from the Hertfordshire area, boasting a total of 12 sites out of the 16 sites which were found to have human-animal co-burials. Interestingly, Cross Farm and King Harry Lane reflect the same number of represented sheep fragments as the Baldock sites (another hinterland of Verulamium). Baldock is a large site, boasting large numbers of human burials comparable to that of King Harry Lane and would

make an interesting comparison but, unfortunately, I did not have the time or permission to examine that site. Intriguingly, Folly Lane shows numbers that are slightly higher than those found at King Harry Lane and Baldock. Within this species alone, St. Stephen's is the outlier, possessing many more sheep fragments than the other sites (Table 10.10).

When examining the frequency of the practice of burying sheep in place of other animals or along with them the pattern is rather different. Baldock Site 'D' and Braughing 'A' and 'B' cemeteries alongside Skeleton Green and Folly Lane show the highest frequencies of the practice ranging from 40% to just under 60%. Whereas Baldock (78-94 excavation), The Grange, and Cross Farm display much lower frequencies ranging from 20% to 25% of sheep inclusion. St. Stephens' Cemetery, which has been amongst the highest frequencies in other species groups, ranks last for the inclusion of sheep, displaying around 9%. This suggests a lack of preference for sheep at this site in favour of other animals.

Cattle are present throughout the majority of sites in Hertfordshire as well. The majority of locations only represent the species through a very small range of occurrences. Folly Lane, however, takes the position of the outlier as the site jumps to 15 fragments for cattle (see Table 10.11).

Sites	*Minimum number of individuals from the co-burials on site*		*Total number of co-burials on site*	*Number of co-burials with species*	*Percentage of co-burials with species*
	Unburnt sheep	*Burnt sheep*			
Baldock: Walls Field (Site D)	2		5	2	40%
Baldock (1978-94 excavations)		4	19	4	21%
Cross Farm		1	4	1	25%
King Harry Lane		1	39	1	2.5%
Baldock 'The Tène' (Site F)	1		1	1	100%
Baldock: The 'Tène'	1		1	1	100%
Braughing 'B' cemetery		8	16	8	50%
Braughing 'A' cemetery		2	5	2	40%
Skeleton Green		5	12	5	41.6%
The Grange, Welwyn		2	10	2	20%
Folly Lane		4	7	4	57%
St. Stephens		10	87	8	9%

Table 10.10: Human and animal co-burials with sheep inclusions from Hertfordshire.

Sites	*Minimum number of individuals from co-burials on site*		*Total number of co-burials on site*	*Number of co-burials with species*	*Percentage of co-burials with species*
	Unburnt cattle	*Burnt cattle*			
Baldock (1978-94 excavations)		5	19	5	26.3%
Baldock: Walls Field (Site D)	1		5	1	20%
Braughing B		1	16	1	6%
Baldock: 'The Tène' (Site F)	1		1	1	100%
The Grange, Welwyn		4	10	4	40%
St. Stephens		2	87	2	2%
King Harry Lane		1	39	1	2.5%
Cross Farm		3	4	2	50%
Skeleton Green		4	12	4	33%
Folly Lane		5	4	2	50%

Table 10.11: Human and animal co-burials with cattle inclusions from Hertfordshire.

The number of *unidentified mammal* fragments remain low from site to site, similar to the numbers seen with the identified species (Table 10.12). However, St. Stephen's cemetery boasts a large quantity (n.= 110 fragments) in comparison to other archaeological sites. Interestingly, aquatic species were also found, albeit sparsely, in the Hertfordshire region. Skeletal remains belonging to fish were only found on three occasions at St. Stephen's cemetery. More to this, an additional three unidentified fish ribs were recovered from another burial unburnt. The authors speculated the fish ribs may be accidental inclusion as the cinerary urn showed possible signs of domestic use before it became a mortuary item (Stead and Rigby 1986). This could be due to the recovery techniques (archaeological units were not sieving, identifying and recovering the tiny fragments) or that they simply were not there as part of the funerary practices. Oysters and mussels (represented under the classification: shellfish) were only recovered from Youngsbury, Ware.

Another species, not represented often in the archaeological mortuary record from this region is deer. Only three fragments were found at three sites, Braughing cemetery 'A', Baldock Site 'D' and The Grange, Welwyn, of the total looked at for this region. Material from Baldock excavations, carried out between 1978 and 1994 revealed a few fragments of possible horse metapodial from a burial which had been cremated.

Sites	*Minimum number of individuals from co-burials*		*Total number of burials on site*	*# of co-burials with non-human species*	*% of Co-burials with non-human species*
	Unburnt non-human mammal	*Burnt non-human mammal*			
Baldock (1978-94 excavations)	2	4	19	4	21%
Braughing B		3	16	3	18.7%
Skeleton Green		1	12	1	8%
Walls Field, Baldock		1	5	1	20%
Folly Lane		17	4	3	75%
King Harry Lane		19+	39	20	23%
St. Stephens		69+	87	69	79%

Table 10.12: Human and animal co-burials with unidentifiable non-human mammal species (Hertfordshire).

Relationally, when the numbers and variety of species are examined alongside other sites within the modern county of Hertfordshire, a similarity in the types of species included in the mortuary rites can be seen. King Harry Lane present itself as an outlier in relation to the surrounding area, particularly in relation to the number of chickens within individual human burials. Folly Lane, however, tends to align more closely with other sites in the region that were present for human-animal co-burials for the species of chicken. These sites include Baldock Walls field as well as Braughing Cemetery 'A' (see Table 10.7). It must be pointed out that numerous sites have been excavated within the Hertfordshire County but only about 16 sites seem to have included human-animal co-burials. While the category of "unidentified birds" includes unidentifiable avian skeletal fragments, it remains important to include the data as Table 10.8 clearly shows St. Stephen's cemetery contained many more human-animal co-burials of that grouping than other locations within the area suggesting there is a different relationship between humans and avian species at that particular site.

In looking at the statistical significance of the species to determine which are the greatest 'influencers', it becomes visible that unidentifiable non-human mammals, pig and unknown birds show a similarity in the burial practice. Initially, all skeletal material was done in individual counts of the number of human burials which present animals within their burial rites. This of course can skew the data as the total number of burials found at various archaeological sites differs greatly between each other. As such, this can be overcome by changing the count data into percentages giving a more level data set to compare the frequency of human-animal co-burial rites. The percentage for the presence of each species from the different locations is seen below in Table 10.13. Figure 10.2 is a graphical representation of frequencies for particular human-animal co-burial practices.

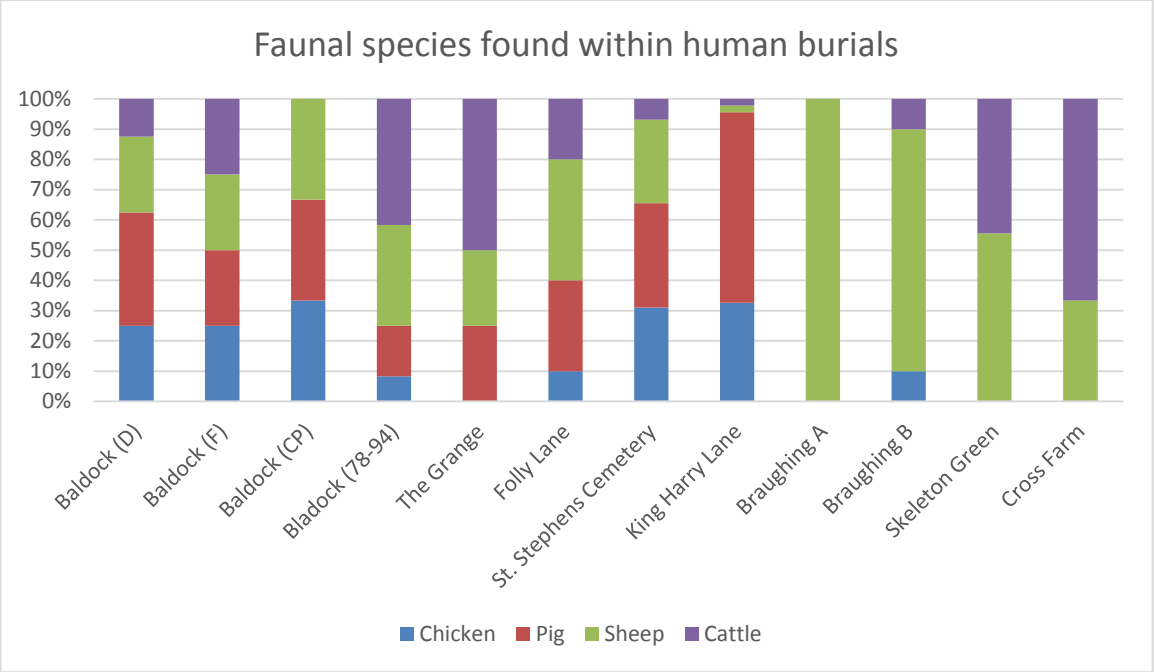


Figure 10.2: Percentages of human-animal co-burial from sites in Hertfordshire (based off numbers seen in Table 10.13 below).

Sites	***Chicken***	***Pig***	***Sheep***	***Cattle***
Baldock (Site D)	25	37.5	25	12.5
Baldock (Site F)	25	25	25	25
Baldock (CP)	33.33	33.33	33.33	
Baldock (78-94)	8.33	16.67	33.33	41.66
The Grange		25	25	50
Folly Lane	10	30	40	20
St. Stephen's cemetery	31.03	34.48	27.58	6.89
King Harry Lane	32.6	63.04	2.17	2.17
Braughing 'A'			100	
Braughing 'B'	10		80	10
Skeleton Green			55.55	44.44
Cross Farm			33.33	66.66

Table 10.13: Species on twelve sites within the vicinity of St. Albans (percentages).

It was discovered that some site faunal assemblages show more of an equal share (some Baldock sites) between cattle and sheep in their mortuary faunal assemblages with a varying low level of chicken and pig, while others (the Braughing sites) are primarily made up of sheep (80% +). Unfortunately, it is slightly more difficult to distinguish a pattern at some sites as they tend to show more equal amounts of the different species throughout. Although it could be split further into two groups based on one's lower frequency of cattle. The site of King Harry Lane is highlighted as being different in human-animal co-burial tradition as it contains an incredibly large percentage of pig (63%) and a very low percentage of sheep and cattle (2%). This is a trend not found elsewhere in this study group.

	Chicken	***Pig***	***Sheep***	***Cattle***
Chicken		0.0021156	0.060777	0.021551
Pig	0.79245		0.0031732	0.14585
Sheep	-0.5555	-0.77335		0.59603
Cattle	-0.65213	-0.4463	-0.1706	

Table 10.14: Correlation statistics for human-animal co-burials within St. Albans.

Pearson's *r* can range from -1 to 1. An *r* of -1 indicates a perfect negative linear relationship between the variables (i.e. the different species an *r* of 0 indicates no linear relationship between the variables, while an *r* of 1 indicates a perfect positive linear relationship between the variables. Table 10.14 (above) shows that there is a positive linear relationship between pig and chicken and a negative linear relationship between sheep and pig, cattle and chicken, sheep and chicken and finally cattle and pig. In other words, statistically speaking when there is a greater number of pig found amongst human burials an equal rise in the number of chickens is also found. This is equally true if there is a decrease in the number of these species. Similarly, in a negative relationship between cattle and sheep was found. Meaning that when the number of cattle found in human burials increases the number of sheep decreases and vice versa. Lastly, there is no real linear relationship between sheep and cattle. In layman's terms, the number (and changes

to that number) of one species is not dependant on what occurs when there are changes in the frequency of the other species.

10.5.2 Patterns of human-animal co-burials outside the Hertfordshire area

Philpott's (1991) study lists several sites from several different locations around England in an attempt to address the varying trends seen at different locations. While this does allow for some clue as to the type of faunal species which might have enjoyed an elevated status, it is clear that the relationships between various geographic locations not only assumes the same thought process and encounters between humans and species took place but it also assumes the tradition of human-animal burial is detached from the human interaction with the incoming Roman population (military or otherwise). It would prove more useful to examine the human-animal co-burial practice found in varying degrees throughout the sites used in my study with those of the surrounding area of Hertfordshire. It is assumed that the closer geographic locations of the sites would allow for the flow of cultural beliefs and traditions to occur. Such archaeological sites surrounding the ancient city of Verulamium may in fact represent a certain area of population that was associated with that larger *civitas* in some way. From examining site reports, several things became clear.

The first thing was that there were many more sites excavated in the surrounding locations of the greater St. Albans area and Hertfordshire itself than seemed to have human-animal co-burials on site. A list of these sites may be found in Appendix A10. Explanations for this could be, (A) the human population of certain locations simply did not practice the funerary rite, (B) the excavators of the locations did not practice throughout excavation procedures in identifying and keeping the faunal remains, and/ or (C) the authors of the site reports did not relay the information of human-animal co-burials. It may also have been that the faunal remains found in human burials were lumped in with the faunal remains from

settlement locations and thus their context as a funerary/ mortuary item was not preserved.

10.5.3 Past interpretations of faunal skeletal material

In opposition to the circumstances of human-animal burial contexts found at the four sites used in this study, the literature suggests some remains were part of a funerary feast as some remains were found isolated from the human occupant in a sort of cinerary urn or was perhaps arranged to resemble a laid out meal, including platters, knife and fork instruments while others had evidence that at least part of the meat was removed prior to burial (Philpott 1991: 195-199). The site of St. Pancras, Chichester, West Sussex (Down and Rule 1971) lists "food bones in dish". There are several problems with this as (first) what is the evidence they were "food bones" albeit they were found located in a dish but more importantly (second) what were these "food bones" – are they sheep, cattle, bird? There is no way of being able to consider a second opinion of their role in the burial as the wording used by the author has already decided that for the reader.

Of all the regional sites examined outside of Hertfordshire, two species that were noticeably absent in Hertfordshire were dog and horse. They were, however, found in varying numbers across Kent, West Sussex, Cambridgeshire, Oxfordshire, and Hampshire. Iconographically, these two species gain prominence during the Romano-British and Anglo-Saxon periods as well as in the modern fox hunts carried out in Britain (Knight 2012; Hamilakis 2003). Interestingly, their association with the hunt does not necessarily mean wild species will also be present in the mortuary rites. Deer seem to be present in Kent and Hampshire but not outside of those two regions. A perhaps unexpected grouping of oysters and mussels tend to be found, despite fairly low numbers, in several regions as well. They appear in Kent, West Sussex, Essex, Buckinghamshire, and Cambridgeshire among other locations not discussed here.

While not overwhelmingly present at the sites examined in this thesis, excavation reports through Britain do have many more examples of animal remains buried alongside human occupants who have been inhumed. Apart from a concentration in Kent, there are a few examples coming out of Hertfordshire as well as in Gloucestershire, Somerset and Hampshire. When considered in relationship to Iron Age burial practices, traditions of animal co-burials have been found in the Durotrigian culture from Dorset and the Arras who were thought to predominately occupy Northern Yorkshire-Humberside (Philpott 1991: 201).

Table 10.15: Human-Animal co-burial examples from across the surrounding areas of Hertfordshire [modified from Philpott (1991) and Pearce (2013)].

Sites	**Number of total burials on site**	**Number of co-burials**	**Percentage of co-burials**
West Sussex			
St Pancras, Chichester		11	?
Hardham	5	3	60%
Avisford	1	1	100%
Wiggonholt	2	1	50%
Lancing Ring	35	1	3%
Hampshire			
Bonhams Farm	1	1	100%
Kemps Yard	9	1	11%
Neatham	5	1	20%
Owslebury	70	2	3%
Rampier Copse	"several"	1	?
Grange Rd	2	2	100%
Milland	1	1	100%
Nun's walk	3	2	33%
Winall	4	1	25%
Lankhills	473	9	2%
Kent			
Borden	6	1	17%
Canterbury Castle	2	1	50%
Tremworth Down	27	4	15%
Joy Wood	7	1	14%
Ospringe	66	1	2%
Bayford	2 + more crem	1	?

Table 10.15: Continued			
Holborough	1	1	100%
Northbourne	14	5	36%
Lullingstone	1	1	100%
Snodland	1	1	100%
Springhead	4	1	25%
Upper Halling	10	1	10%
Essex			
Bartlow Hills	6	1	17%
Birchanger	1	1	100%
Little Waltham	1	1	100%
Stansted	31	1	3%
Stanway	3	1	33%
Joslin Collection	2	2	100%
Shoebury	3	1	33%
Mucking		1	?
Buckinghamshire			
Bancroft	22	2	9%
North Marston	1	1	100%
Cambridgeshire			
Snailwell	1	1	100%
Arms Hills	1	1	100%
Emmanuel knoll	1	1	100%
Guilden Morden	286	3	1%
Hildersham	2	1	50%
Red church field	1	1	100%
Hey Hill	1	1	100%
Park Lane	2	2	100%
Oxfordshire			
The Vicarage	7	1	14%
Barton Court	3	2	66%
Bloxham	21	1	5%
Cassington	2	1	50%
Stanton Harcourt	33	1	3%
Church Piece	500*	1	>1%

Table 10.15: The Percentage in which human-animal co-burials occur within specific regions in England (modified from Philpott 1991 and Pearce 2013).

From the large table shown above one can see that, while there is extensive literature out there in regards to the description of human-animal co-burials it is not without fault. Several of the sites used by Philpott (1991) have very low ratios between the total number of human burials on site to those found with animals.

Thus as this thesis progresses I will neglect to highlight the cases in which the total number of burials equals the number of co-burials. While this may seem exclusive and possibly a detriment to understanding the data I am not sure, in cases where the ratio equals 1:1, that an accurate picture of a burial rite could be gained.

It is understood that that the regional traditions would have greatly influenced burial rites and as such it may not be completely accurate to compare the frequencies of species seen buried with humans in Hertfordshire to those in surrounding counties. From the number of sites listed above it would seem that the inclusion of chickens in final burial rites are somewhat restrictive in overall frequency when comparing the total number of burials at any particular site to the burials which received the species in question. Several cases are single occurrence. Similarly, this is found with the material below described in Table 10.17 with unidentified birds. However, when seen in larger samples there seems to be a great range in frequencies both in regards to the overall mortuary faunal assemblage and the favouritism displayed with which animal gets chosen the most often for burial inclusion. Similar to Hertfordshire traditions, pig as a mortuary item, tends to dominate burial traditions ranging in frequencies between 20% and 50%.

Sites	***Minimum number of individuals found within co-burials on site***	***Total number of co-burials from site***	***# of co-burials including that species (Chicken)***	***% of species inclusion in co-burial from site (Chicken)***
Kent				
Holborough	1	1	1	
Northbourne	3	5	3	60%
West Sussex				
Lancing Ring	1	1	1	
Hampshire				
Milland	1	1	1	
Winall	2	1	1	
Essex				
Bartlow Hills	3	1	1	
Little Waltham	2	1	1	

Table 10.16: A breakdown of the presence of chicken used in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (Ui bird)*	*Percentage of species inclusion in co-burial from site (Ui bird)*
Kent				
Canterbury Castle	1	1	1	
Ospringe	2	1	1	
Northbourne	5	5	2	40%
Upper Halling	1	1	1	
West Sussex				
St Pancras, Chichester	21	11	2	18%
Wiggonholt	1	1	1	
Hampshire				
Rampier Copse	1	1	1	
Grange Rd	1	2	1	50%
Milland	2	1	1	
Lankhills	6	9	6	66%
Essex				
Mucking	1	1	1	
Cambridgeshire				
Snailwell	1	1	1	
Guilden Morden	2	3	1	33%
Hildersham	1	1	1	
Hey Hill	1	1	1	

Table 10.17: A breakdown of the presence of unidentified birds used in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (Pig)*	*Percentage of species inclusion in co-burial from site (Pig)*
Kent				
Joy Wood	1	1	1	
Northbourne	3	5	1	20%
West Sussex				
Hardham	1	3	1	33%
Hampshire				
Rampier Copse	1	1	1	
Grange Rd	2	2	1	50%
Winall	1	1	1	
Lankhills	4	9	4	44%
Essex				
Birchanger	2	1	1	
Little Waltham	2	1	1	
Stansted	1	1	1	
Joslin Collection	1	2	1	50%
Mucking	1	1	1	
Buckinghamshire				
Bancroft	1	2	1	50%
North Marston	4	1	1	
Cambridgeshire				
Snailwell	1	1	1	
Hey Hill	1	1	1	

Table 10.18: Usage of pig in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

The presence of deer (Table 10.19) and shellfish (Table 10.20) seems to enter the mortuary record earlier on in the regions of Kent and Hampshire. Later data from the Anglo-Saxon burials amongst some of the sites used in this study see an influx of more wild species not observed in the mortuary record from the Romano-British period. Likewise, this is also the case with the remains of dogs making their way into the burial arena (see Table 10.24).

More similar to trends in the mortuary record found at Cross Farm, cattle seem to enjoy higher frequencies in Hampshire and Cambridgeshire than it does in

Hertfordshire, generally speaking. Sheep are found to be more widespread in the Romano-British period than other species such as dogs, deer and horse. Only a few examples of horse were found in the literature dealing with the Romano-British period and as such it was not included in the tables seen throughout this section.

Sites	*Minimum # of individuals found within co-burials*	*Total # of co-burials from site*	*# of co-burials with that species*	*% of species inclusion in co-burial*
Kent				
Borden	1	1	1	
Tremworth Down	1	4	1	25%
Ospringe	1	1	1	
Hampshire				
Winall	1	1	1	

Table 10.19: Usage of deer in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum # of individuals found within co-burials*	*Total # of co-burials from site*	*# of co-burials including that species*	*% of species inclusion in co-burials*
Kent				
Springhead	2	1	1	
West Sussex				
St Pancras	3	11	2	18%
Avisford	1	1	1	
Hampshire				
Neatham	2	1	1	
Essex				
Joslin Collection	1	2	1	50%
Shoebury	1	1	1	
Stanway* (fish)	1	1	1	
Buckinghamshire				
North Marston	1	1	1	
Cambridgeshire				
Emmanuel knoll	1	1	1	
Guilden Morden	1	3	1	33%
Park Lane	1	2	1	50%

Table 10.20: Use of shellfish in burials across different geographic regions (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (Ui mammal)*	*Percentage of species inclusion in co-burial from site (Ui mammal)*
Kent				
Borden	2	1	1	
Canterbury Castle	2	1	1	
Ospringe	2	1	1	
Bayford	2	1	1	
Northbourne	2	5	1	20%
Lullingstone	2	1	1	
Springhead	1	1	1	
West Sussex				
St Pancras, Chichester	2	11	7	63%
Hampshire				
Bonhams Farm	2	1	1	
Owslebury	2	2	1	50%
Nun's walk	2	2	1	50%
Lankhills	1	9	1	11%
Essex				
Stansted	3	1	1	
Joslin Collection	1	2	1	50%
Mucking	1	1	1	
Buckinghamshire				
Bancroft	3	2	2	
Cambridgeshire				
Arms Hills	1	1	1	
Hildersham	1	1	1	

Table 10.21: Use of un-speciated mammals in burial practices across different regions (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (cattle)*	*Percentage of species inclusion in co-burial from site (cattle)*
West Sussex				
Hardham	4	3	3	100%
Hampshire				
Rampier Copse	1	1	1	
Grange Rd	1	2	1	50%
Winall	2	1	1	
Essex				
Little Waltham	1	1	1	
Buckinghamshire				
North Marston	1*	1	1	
Cambridgeshire				
Snailwell	1	1	1	
Park Lane	1	2	1	50%
Oxfordshire				
Church Piece	1	1	1	

Table 10.22: Use of cattle in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (sheep)*	*Percentage of species inclusion in co-burial from site (sheep)*
West Sussex				
St Pancras, Chichester	2	11	2	18%
Hampshire				
Nun's walk	1	2	1	50%
Lankhills	1	9	1	11%
Essex				
Little Waltham	1	1	1	
Buckinghamshire				
Bancroft	3	2	2	
North Marston	1	1	1	
Cambridgeshire				
Guilden Morden	4	3	3	
Hey Hill	1	1	1	
Park Lane	1	2	1	50%
Oxfordshire				
The Vicarage	2	1	1	
Barton Court	1	2	1	50%
Bloxham	3	1	1	
Stanton Harcourt	1	1	1	

Table 10.23: Use of sheep in burials across different geographic locations (modified from Philpot 1991 and Pearce 2013).

Sites	*Minimum number of individuals found within co-burials on site*	*Total number of co-burials from site*	*Number of co-burials including that species (dog)*	*Percentage of species inclusion in co-burial from site (dog)*
Hampshire				
Grange Road	1	2	1	50%
Lankhills	1	9	1	11%
Cambridgeshire				
Red church field	1	1	1	
Oxfordshire				
Barton Court	1	2	1	50%
Cassington	2	1	1	

Table 10.24: Use of dogs in burial practices across different geographic locations (modified from Philpot 1991 and Pearce 2013).

In outlining and modifying the data which has been compiled from various archaeological resources, it becomes obvious that the tradition of co-burial extends far outside the area of St. Albans. While the majority of cultural-regional groups show tendencies towards including pigs, chickens, sheep and cattle which were previously demonstrated to be present in the Hertfordshire area, it is also recognised that other species were included in this tradition which seem to have been purposely excluded in the rituals found at Verulamium. New species found to be partaking in mortuary rites include horses and dogs as well as the less commonly seen grouping of oysters and mussels.

While it is relevant to think of some of these species as being capable of holding a higher social status within a human community, others do not. Instances of chicken, sheep and other animals have been recorded in burials from Hampshire and Oxfordshire and elsewhere as their respective site reports describe the circumstances of their discovery to either be in jars or on platters- a thing that is distinctly absent from the faunal remains analysed at St. Albans. This may be

explained due to regional cultural differences since even the Romans and native locals would still have not displayed exactly the same burial traditions. Rodent teeth/bones have been excluded since it is likely that these are taphonomic intrusions rather than part of the burial tradition.

As mentioned earlier in this thesis, several of the sites where excavated and analysed during a time where animal material could have easily been excavated improperly, ignored, or simply lumped together with the faunal analysis of material originating from settlement locations within a site rather than treating the faunal remains as a separate grave item. Likewise, the authors may have simply not addressed the presence of faunal remains in their site reports. Moreover, when addressed, faunal remains often were not mentioned with a full NIPS and/or MNI data, they may simply have been vaguely mentioned as "mostly whole bird carcass on platter", "pig bones in jar" or "food bones". Descriptors like the examples mentioned above certainly restrict any further interpretation on behalf of other researchers when the analysis of the physical remains is not an option.

In his writing, Philpott (1991: 195) highlights locations, including South-Eastern parts of Britain, where faunal remains were found within burials either in their own containers, placed on platters or in other dishes suggesting that the practice emulates table setting seen with feasting events for the living. The author describes this particular type of grave as having "a cinerary container accompanied by pottery vessels" which are usually empty when found and uses them to argue that the limited range of forms provided imply food and drink would have been present within them at the time of burial. Problematically, this interpretation modifies and directs the manner in which all items in the grave are understood, biasing them towards a food-centric interpretation based solely on vessel typologies. While it is understandable that Philpot uses the presence of animal and plant remains in containers as a strand of evidence for their interpretation as food-centric items within burial typologies I think we must be careful in using this as a blanket

assumption for occurrences of faunal remains with varying placement within the burial.

10.6 Understanding what the skeletal data actually means

This thesis acknowledges the anthropocentric views present in the interpretation of modern archaeologists and as such has approached the question of to what extent can the osteological record tell us about the human-animal relationship as exhibited in the burial arena during the Romano-British period (43 A.D.-410 A.D) with caution. By drawing upon non-western ethnographic and archaeological evidence additional interpretations of the human-animal relationship both in life and death have been brought to light.

While much is still to be learned from the Romano-British period at St. Albans, there have been a few patterns which have not been previously discussed due to the manner in which previous researchers worked with the data. The detailed recording of animal remains, previously treated as pyre goods, has shown that part/possibly all of the corpse of the animal partook of the same burning ritual as the human counterpart. This evidence suggests that the remains of the animal itself must have held some greater significance to the community, possibly memorialising a sense of personhood, beyond what was originally purposed by scholars. Additional cross tabulation of the occurrence of animal remains within human burials has shown that the rite seems to be tied humoral/elemental theory as species (such as fish) were more likely to be buried with juveniles whereas adult was more likely to receive cattle of sheep (which were thought to have been colder and drier) (see Chapter 6).

The act of burning itself creates a more sensory-engaging experience for the mourners, whereas the inhumation of an individual can be considered more private due to the restricted view of the placement of the body (Cool 2011). Moreover, after examining all the possible reasons why faunal species may be included in human burial rites it clear that certain species were chosen over others. To some extent this

may have been achieved by their importance to the community with their multifaceted roles in life (as animals are capable of hard work but also symbolic connections to deities) and in death (continued connections to certain major deities and possessing good qualities which were encouraged within the Roman community).

11 Chapter Eleven: Theoretical conclusions

The purpose of this thesis, as stated previously, is to show that a human-driven divide between humans and animals had developed as the modern world became more civilized and that this separation made its way into the field of archaeology through the branching specialization of human osteology and zooarchaeology. The necessity for social zooarchaeology has been proven as the combined nature of the research aims brings the two separate research genres back together to form a larger, more complete picture so that less biased questions can be asked about the human-animal relationship of past cultures.

The predominant areas of investigation for this thesis were:

- To what extent did the human and faunal osteological record preserve the human-animal relationship as exhibited in the burial arena during the Romano-British period (43 A.D. - 300 A.D.) within the region of St. Albans?

- What social practices were present during the Romano-British period within Verulamium that involved including animals in mortuary rituals?

- How were the interactions between humans and specific animals in life different from the relationship between those same pairings found in death?

- Was there a social perception of deviant given to either species (human or non-human) which acted as factors in the receiving/giving of burial rites in relation to the practice of co-burial?

11.1 Answers to questions

The undertaking of this research found that, indeed, evidence of the human-animal relationship was preserved to a certain extent both through literature and burial practices. The Roman success at carrying out cremation rituals made it difficult to gain comprehensive insight regarding certain species. Much information was lost through the process of cremation itself, the care given to the collection and secondary burial of the deceased. However, the conclusion of the author is that what has been gained in the process of this PhD is an understanding

that the treatment and selection of species both on an individual level and regionally within Britain is much more complex and varied than was originally thought.

It also showed, that in some instances, certain human individuals (typically adults) had closer bonds to certain species of animals. However, there does not seem to be a discernible pattern for predicting if an individual would have chosen to be buried with a certain species or not. Further to this, it seems that the individuals concerned could be deemed more elite or wanting to portray some level of eliteness but, as stated previously, this is not seen across all burials with all individuals of higher social ranking.

When comparing the mortuary faunal assemblage to that of the living faunal assemblage, it became clear that the focus placed on certain animals in death did not always correspond to those faunal species which were considered important or more valuable according to the subsistence regime seen with certain authors' research interests which have already been highlighted throughout this thesis. At the burial locations associated with Verulamium, more common domestic species such as cattle, sheep and pig were important both in funerary practices and in subsistence. However, the more exotic chicken seemed to play a greater role in mortuary practices than it did in the subsistence economy.

Additionally, variation was identified between the four sites examined in this thesis, the surrounding area of Hertfordshire and the wider South of Britain. Individuals from Verulamium tended to have a closer and more focused relationship with domestic species as demonstrated through their high frequencies in human-animal co-burials as well as their presence among items used and worn by the living and the dead. Other locations, however, included wild species such as deer and dogs in addition to the aforementioned species present at the four burial locations in and around St. Albans. Interestingly, chickens were prominent throughout Britain as they gained importance in the funerary world by manner of their exoticness.

Other locations tended to show a more diverse treatment of animals in the actual burial process. Many times non-cremated fragments of certain faunal species

showed up in jars or on platters suggesting a more removed relationship from humans. On the other hand, where animals are included alongside human counterparts and were recipients of the same sort of treatment there is a very different sort of bond between those individuals and corresponding animals.

While it is acknowledged there are other forms of ceremonial nature faunal species that take part in practices such as sacrifice rituals, it is possible that these events are separate from one another. The presence of a ceremonial temple located close to both the city and burial site could have steered other forms of commemoration away from the burial site and alternative ceremonial locations.

Finally, the idea of deviance proposed at the beginning of this thesis and touched upon throughout will now be addressed. While deviance can be associated with the bad it can also be associated with the unique. So while I believe the human individuals buried with animals were not necessarily seen as bad or outcasts within their society demonstrated through the level of inclusion in the normal location for burial rather than restricted to a particular area, I still believe there may have been something seen as different about them that remains to be seen.

11.2 Domestic species of Romano-British St. Albans

Throughout this thesis it has been suggested that personhood was a mutable category in the Romano-British period, particularly concerning the area of Verulamium, and that the perception of certain animals was contextually defined by how the human-animal relationship and/or shared interactions between the two were experienced within the overall community. Verulamium was an urban population and as such would have been more familiar with the main domesticate species rather than the wild species - perhaps saying something about their willingness to include the known over the unknown or more easily accessible. While drawing conclusions about individual faunal or human lifestyles proves more difficult when dealing with cremation material over inhumation material, the particular identified species did not show signs of bony pathological changes

associated with being part of the work force. It is possible these specific animals were kept for other purposes and may have enjoyed a less stress-bearing lifestyle. However, it is equally possible the evidence needed for this simply did not survive. In turn, this hypothesis has connotations for the status of the human individuals who either kept or purchased the animal individuals prior to their inclusion in the mortuary practices. It is possible the burials observed containing faunal remains were those of the higher echelons of society, the elite.

Or perhaps, the animals were given as gifts for special burials. One of the human-animal co-burials from Cross Farm was thought to be the keystone burial (first burial to go into the cemetery) as it, not only was the richest in terms of other grave goods but also contained the oldest dating pottery sample (pers. Comm. Simon West). It can be assumed that the wealthy would have had more elaborate burials than the poor; whether this extended to the inclusions of certain animal species it as of yet remains unknown. In examining the other grave goods at the burials, it is clear that a number of the cremation burials which have animal remains present also have a number of other burial items. Likewise, however, a number of cremation burials with numerous grave items but no faunal remains suggest that status was not the only influencer for whether a human individual was buried with animal remains or not. The practice of human-animal co-burial, does however, seem to be linked more frequently with the process of a cremation burial rather than an inhumation burial. Again, however, it is not a case of animals not being buried with inhumed human individuals.

This particular set of data does not seem to be associate the practice of human-animal co-burial to a specific biological age outside the broad categorisation of adult or any particular biological sex. It may, however, be linked to a social age. Despite, the fact that there are children of various ages buried alongside adults, the examples of what modern western civilisation would consider young children, were in fact of eligible marrying age in the Roman/ Romano-British society and possibly even in the pre-Roman native social practices. The fact that not every human individual of marrying age is found with some element of faunal remains

may be due to the variation in post-burn collection ritual. The data discussed in Chapter 5, along with data from numerous scholarly papers, made it obvious there was no steadfast rule to the weight amount of cremated remains which should be collected for secondary burial. A variety of environmental, personal and taphonomic factors could also be responsible for the degree of recovery of a non-*bustum* burial.

11.3 The social role animals played in Romano-British St. Albans

In archaeology, as well as the study of ancient textual sources, the manner in which something is structured is an important aspect of the overall analysis. Literature uses imagery, metaphors and metonyms to convey abstract meaning. Graves too, contain what has been described as a 'symbolic grammar'. Certain objects and their location around the body are taken as indicators of information on the status and social position ascribed to the deceased in death. This does not necessarily have to be the position of the person in life, since death rituals can be important markers of a transition process. As discussed in Chapter 7.6, all major transient stages in human life are full of sacred and secular rituals, the most poignant to the living and main interest of this thesis is the death of another. Ritual, as a social practice, draws upon, reproduces and leaves behind historically specific deposits in such a way that anthropologists/archaeologists try to understand the nature of these objects (including bone). This can dangerously lead to interpreting a meaning and trying to assign a singular concept or idea to physical evidence. Charlsey (1987) warns archaeologists and anthropologists alike that "interpretations of rituals should not be the pursuit of any imagined 'real meaning' but the eliciting of possible readings that could have been given to those rituals within the specific cultural context studied."

Cultural-historic approaches, dominant worldwide until the 1960s, were not concerned with individuals but with culture, ethnic groups or even races (Jones 1997: 15-39; Fowler 2004: 11). Processual archaeologies generally pursued the

universal laws of human-specific culture, and in doing so, sought to create frameworks to quantify and compare human social identities and statues (Fowler: 2004). Analyses of mortuary practices drew extensively on social ideas about human social personae and social roles from the fields of sociology and anthropology. Therefore, individuality became equated with personal and unique self-identity that was at the core of the person (Cohen 1994), and was therefore kept separate from social interactions and personae and was explained as a factor of innate individual preference and physiological character traits (Fowler 2004) rather than being influenced by the culture the individual lived and died in. My work takes steps to readdress the social role certain faunal individuals as suggested by burial and non-burial deposits- i.e. refuse pits, etc.

Despite a lack of detailed accounts in regards to the ritual use of food in Roman literature, there is evidence that suggests there were three phases of the ritual setting: libations, the funeral meal and the gifts to the dead (Bouby and Marinval 2004). The presence of cut marks is evidence of food preparation (see Davis 1987; Binford 1978, McKinley 1994), but additional literature suggests that in fact these marks could be from any number of processes (see Bond 1996; Lee 2007). Further, the absence of such marks may not necessarily indicate the animal was not prepared in any way, it may simply be that the person preparing the animal left no marks or the specific marks on certain bones did not survive in the faunal assemblage to be recovered. The evidence of faunal remains being found on platters and in dishes from the Dorset region supports the idea that in those particular instances the species involved may have been considered as food items (see Philpott 1991); but when found fully cremated and unstratified with human remains it is highly unlikely that the same consumption-based thought process was applied as there is no evidence to suggest the faunal species underwent any means of food preparation as discussed in Chapter 5. Additionally, if living people were eating the flesh of the animals prior to the ritual, one would expect to see a difference in the way the bones were treated or a lack of their presence all together. However, it is also not entirely impossible that a single animal would have been used for a

funerary feast while a specific part was kept to include in the burial rite for the human either as an amulet, or skin covering of some sort. Given that people within the same community die at different rates, it is also probable that different animals would have been used for different cremation events. This idea is supported by Williams (2004a; 2004b) whose work supports the fact that it was not seen as right to reuse someone else's pyre and as such it would not be probable to use a different part from the same animal either.

Once again I aim to remind the reader that cremation serves to destroy and rebuild the identity of the deceased into new ancestral form, which in many ways could be seen as analogues to shamanistic initiation embodying themes of death and regeneration (Bloch and Parry 1982; Eliade 1964). By making the sacrificed animals undergo a parallel transformation, the animals either as integral parts of the deceased's identity or as agents for the transformation of that identity became linked to the deceased (Williams 2001: 206). Animals were not simply placed on the pyre they were consciously retrieved and included in the urn with the human remains and buried with other artefacts. This relationship suggests something more than animals as acting as status and identity symbols: it may indicate that the cremation and post - cremation treatment of animals and people were intended to forge a link between the two, as they were transformed and altered by the technologies and practices of the funeral itself. This illustrates that rather than simply being a means of disposing of the deceased's movable wealth and providing food for the mourners, the sacrifice of animals within the cremation ceremony can be seen in relation to animistic and perhaps related to a shamanistic way of viewing the world, in which rituals renegotiate animal-person relationships.

Most significantly, this is seen in the pre- and post- burial treatment including a lack of division in the placement of the animal remains within the final burial. As demonstrated earlier, faunal skeletal elements were commingled with the human remains and taken to a secondary location for additional funerary rites. This suggests there may have been some sort of homogenisation of the human and animal remains after death even if they were separate in life. This could either be

interpreted as perhaps the characteristics of the deceased human and animal being combined into a single ancestral identity or living memory.

11.4 The significance of the human-animal relationship on the on the mortuary record of Romano-British St. Albans

The faunal remains found within the human burials in Verulamium were identified as having had protection from the elements prior to burial suggesting a certain amount of care and effort went into pre-burial treatment. The delineation between collection of post-cremated remains versus the remains which were placed within various manners within the grave and did not participate within the rite of cremation in the same respect must be interpreted differently than those which have undergone cremation. In cases where the faunal remains are found in association with dinning equipment or to be placed within dining platters or vessels it may be true that the species involved are in fact taking on the identity or role of food items. However, when not found with such associations, as is the case with the faunal remains from the sites examined in this study, scholars must acknowledge the fact that there were likely to have been deeper relationships, beyond food, within the Romano-British community influencing the treatment of the faunal remains.

As stated before in Chapter 5, the specific faunal individuals observed within the mortuary record from the sites used in this study have, for all intents and purposes, followed the human individual in the cremation and post-cremation burial rituals (quite possibly the pre-pyre treatment) suggesting they held some sort of perception of individual personhood or animalhood different from others of their species which did not receive such treatment.

Alternative possibilities for their presence in human burials were through their connections to Roman deities (either through general association of characteristic traits, or as a symbolic gift to specifically chosen god(s) or goddess(es) or as members of the community which were deemed to be deserving of a particular type of honour/commemoration ceremony. Due to the social turmoil of the time

surrounding the power struggles of the incoming Roman powers versus the native elites, it is also possible that in some cases the archaeological record is showing members of lower status within the community attempting to emulate higher status burial rites in an attempt to elevate individual familial status within the community.

While it is admitted that the native versus Roman social identity as a motivator for the use of faunal remain inclusion in burial was not addressed in this thesis. It is realised that tackling such a topic would require additional research. It is certainly possible that perceived social identities tied to a specific group (such as one which encouraged the co-burial of humans with animals) would influence burial rites within a community as has been the case with the ancient city of Verulamium and its hinterlands.

12 Chapter 12: Furthering the field with osteological data

Osteologically speaking, the point of this thesis was to give equal consideration to the human and faunal remains found in the burial record of the St. Albans area. What became clear throughout the execution of this research was that we, as modern archaeological scholars, are divided over which aspects to focus on. Often so much that we do not spend enough time setting aside our own biases to critically think about how to carry out analysis that is best suited to answering the questions at hand. So much of archaeology is caught up on this idea of animal bones in burials are evidence of joints-of-meat that have been inhumed or cremated for later consumption. However, these archaeologists do not stop to actually acknowledge other possibilities. In examining all facets of evidence (gnawing, butchery and cut marks, colour changes, skeletal element selection, placement within the burial) it has been discovered that not all aspects of analysis fall in line with the conclusion of animal remains being used in the Verulamium cremation or inhumation burials as revenants of funerary feasting.

12.1 Rehashing the importance of clear osteological data in the archaeological record

In undertaking this thesis, it became clear fairly quickly that the current methods previously applied (see Chapter 4) for the analysis of inhumed faunal remains were not fully applicable to cremated faunal remains and that, in fact, there was very little peer –reviewed literature truly focusing on the analysis of cremated animal remains. Much of what was found had its roots in forensic arson cases (See Schmidt and Symes 2008) and/or involved the use of cremated animal remains understand how human bones might react to different types of fire. The author felt that the research questions for the aforementioned experiments often lacked interest in understanding the differences in how different faunal species react in response to different levels of exposure to varying pyre temperatures. The author can recall

a single paper in which experiments surrounding the burning/cremation of non-human faunal remains were gathered to be informative in their own right rather than simply used as a model for colour changes and fracturing patterns seen among cremated human remains (Whyte 2001). Interestingly, Whyte (2001) included fish and snake in his experimental cremations, species which have been neglected as they are not similar in composition to human burning evidence. It is clear to me that further testing on avian and aquatic species are needed to see how lighter/airier bones withstood high temperature fires over an extended period of time. This would allow scholars to gain a clearer understanding of what survives in the cremation process rather than pure assumption about the use of certain species in said burning rituals or selective collection.

Insofar as an outcome for this thesis, I wish that other archaeologists (particularly zooarchaeologists) are made aware of just how lacking the field is regarding research into the preparation and cooking/cremation processes there really is in regards to the presence of faunal remains in burial contexts within Britain. While some scholars circle the subject area of food preparation, feasting and cremation practices, there is not much that does experimental research to try and understand the various layering of pre-burial processes of faunal remains and what factors might be in play within different communal groups.

I would like to make a call-to-arms, if you will, in saying there needs to be an acceptance that the standardized methods for the recording of faunal material in reality are only able to record the necessary information for inhumed skeletal data. However, further work needs to be put into developing an acceptable method for the recording of cremated faunal material which differentiates other burning evidence. While information like level of fragmentation could be useful when discussing the pyre environment, I feel it is superfluous in recording the thousands of fragments found in conjunction with high temperature burns. Moreover, it complicates the process of quantification when using categories of NISP/MNI as a single bone could have numerous fragments that are unable to be pieced back together (as is sometimes the case with fragmentation seen in inhumation burials).

I believe a good starting point for a better methodology, which is geared towards the recording of faunal cremation, is to apply the ideas I have used in this thesis (see Chapter 4.4 and 4.6). While inventory recording sheets exist for human inhumations, the same does not exist for cremations. Therefore, I found it necessary to create a sheet in which I could record different forms of analysis to be interpreted later. It was found that dividing faunal (or human) skeletal material into broader, more encompassing zones (head, shoulder girdle, forelimb, torso, pelvic girdle, hind limb) allowed for the gathering of more specific data than the shading in of random locations on inventory sheets or for the random assigning of a number zone (for example: 3 = left hand portion of the proximal radius). This approach is far from perfect, but it is a starting point which allows cremated faunal material to be recorded in a more accessible and systematic manner

12.2 Continuing the research relationships between skeletal data and artefacts

The skeletal material from St. Albans saw mostly domesticated faunal species (Chapter 5.3). Other locations, however, saw additional wild species being included in burials (Chapter 10). Therefore, another point I believe needs to be examined in much greater detail is the relationship between animals and objects, specifically, animals and the differences in pottery usage seen amongst the burials. Despite the variation in usage (doubling as cinerary urns and accessory vessels) for each vessel-type it is important to point out that these objects were not made for event-specific use but, rather were repurposed from the everyday items used by the community (see Chapter 9 discussion). Given the importance placed on certain animal species in this thesis, it seems that the special care given to the burial did not extend to the item used to contain the remains of the human and faunal individual(s). I believe this adds a whole other set of complexities to the extent of human-animal relationships in regards to food, personhood and remembrance for both human and animal counterparts.

A further extension to the human-animal relationship was nodded to earlier in Chapter 6.3. Jones and colleagues (2016) are asking researchers to look beyond what they think they know about the possible interpretations behind animal inclusions in burials and acknowledge the possibility of humoral and elemental reasoning influencing the way certain groups of people, Romano-British individuals in this case, interacted with their environment. Interestingly, evidence presented earlier in this thesis (Chapter 5) seemed to follow adult/juvenile patterns in regards to the selection of animals which is in line with humoral/elements ideas regarding younger species being regarded as moister and warmer and older species being drier and colder. Moreover, species such as sheep and fish, which are assigned to younger human age groups in the humoral/elemental system, were found to be following such guideline in regards to their placements within human burials. Likewise, cattle (which has been associated with older individuals) was typically found within adult burials at the Verulamium sites. In following this tradition, I believe it could be interesting to see if further extensions of this underling theme emerge when examining animal representations through other objects such as jewellery and object decoration. Furthermore, it would be interesting to see how such ideas might fit into burials which contain the presence of certain wild/exotic creatures either through the physical skeleton or as decorative forms adorning pieces of jewellery, pottery and weapon hilts.

12.3 Final points

Over the course of the last eleven chapters this thesis has demonstrated the divide between humans and animals as found in the field of archaeology by way of segregating specializations of human osteology and zooarchaeology. The work carried out here I believe has worked well within the parameters of social zooarchaeology bringing the two separate research focuses back together to form a larger, more complete picture so that less biased questions can be asked about the

human-animal relationship of past cultures. It is not the place of this thesis to attempt to dismiss specialization of Roman archaeology, zooarchaeology or human osteology as wrong. However, it is meant to make a statement that when undertaking research that is relevant to all three areas, better communication of methodological and theoretical ideas is needed. It may be true that you cannot date a site from its skeletal material, but it does not mean its value is any less when trying to understanding the social practices of an ancient community.

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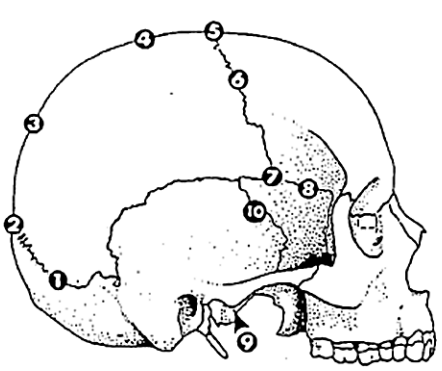
Appendices

A1: Cranial ageing methods



Ectocranial Vault Observation Sites

1. Midlambdoid
2. Lambda
3. Obelion
4. Anterior sagittal
5. Bregma
6. Midcoronal
7. Pterion

Ectocranial Lateral-anterior Observation Sites

6. Midcoronal
7. Pterion
8. Sphenofrontal
9. Inferior sphenotemporal
10. Superior sphenotemporal

Figure A1-1: Various points of the cranium observed for degree of closure (Meindl and Lovejoy 1985).

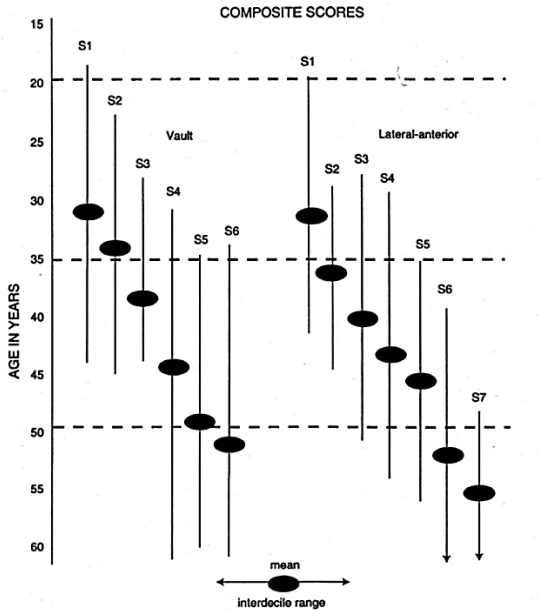


Figure A1-2: Association between chronological age and ectocranial suture composite scores for the vault and the lateral-anterior region (after Meindl and Lovejoy 1985). The bars indicate interdecile range, with the mean indicated by an oval and the arrows indicating that individuals exceeding 60 years of age are included in those estimations.

A2: Pelvis ageing methods

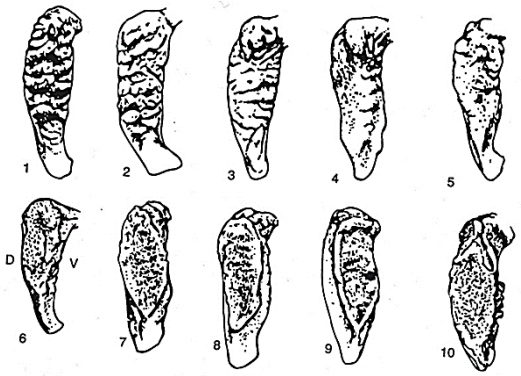


Figure A2-1: Scoring of the pubic symphysis using the Todd scoring system (Drawing by Z. Jastrzebski, McKern and Stewart 1957; cited in Buikstra and Ubelaker 1994).

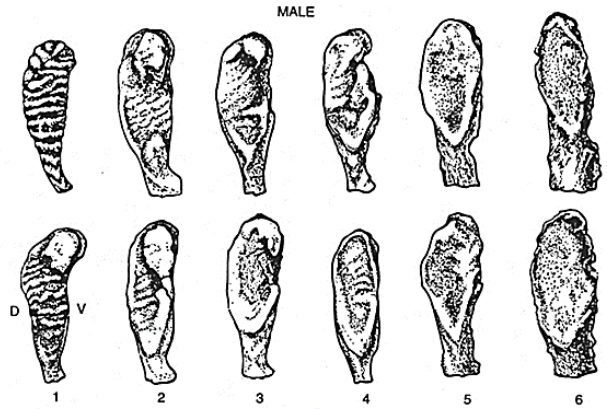


Figure A2-2: Scoring of male pubic symphysis using the Suchey-Brooks system (Drawing by Z. Jastrzebski, Brooks and Suchey 1990; cited in Buikstra and Ubelaker 1994).

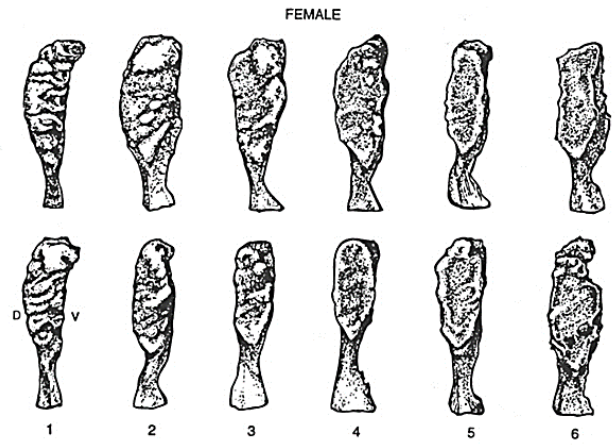


Figure A2-3: Scoring of female pubic symphysis using the Suchey-Brooks system (Drawing by Z. Jastrzebski, Brooks and Suchey 1990; cited in Buisktra and Ubelaker 1994).

Phase 1. Transverse billowing and very fine granularity. Articular surface displays fine granular texture and marked transverse organization. There is no porosity, retroauricular or apical activity. The surface appears youthful because of broad and well-organized billows, which impart the definitive transverse organization. Raised transverse billows are well-defined and cover most of the surface. Any subchondral defects are smooth-edged and rounded. (Age, 20-24)

Phase 2. Reduction of billowing but retention of youthful appearance. Changes from the previous phase are not marked and are mostly reflected in slight to moderate loss of billowing, with replacement by striae. There is no apical activity, porosity, or retroauricular activity. The surface still appears youthful owing to marked transverse organization. Granulation is slightly more coarse. (Age, 25-29)

Phase 3. General loss of billowing, replacement by striae, and distinct coarsening of granularity. Both demifaces are largely quiescent with some loss of transverse organization. Billowing is much reduced and replaced by striae. The surface is more coarsely and recognizably granular than in the previous phase, with no significant changes at apex. Small areas of microporosity may appear. Slight retroauricular activity may occasionally be present. In general, coarse granulation supersedes and replaces billowing. Note smoothing of surface by replacement of billows with fine striae, but distinct retention of slight billowing. Loss of transverse organization and coarsening of granularity is evident. (Age, 30-34)

Phase 4. Uniform, coarse granularity. Both faces are coarsely and uniformly granulated, with marked reduction of both billowing and striae, but striae may still be present. Transverse organization is present but poorly defined. There is some activity in the retroauricular area, but this is usually slight. Minimal changes are seen at the apex, microporosity is slight, and there is no macroporosity. (Age, 35-39)

Phase 5. Transition from coarse granularity to dense surface. No billowing is seen. Striae may be present but are very vague. The face is still partially (coarsely) granular and there is a marked loss of transverse organization. Partial densification of the surface with commensurate loss of granularity. Slight to moderate activity in the retroauricular area. Occasional macroporosity is seen, but this is not typical. Slight changes are usually present at the apex. Some increase in macroporosity, depending on degree of densification. (Age, 40-44)

Phase 6. Completion of densification with complete loss of granularity. Significant loss of granulation is seen in most specimens, with replacement by dense bone. No billows or striae are present. Changes at apex are slight to moderate but are almost always present. There is a distinct tendency for the surface to become dense. No transverse organization is evident. Most or all of the microporosity is lost to densification. There is increased irregularity of margins with moderate retroauricular activity and little or no macroporosity. (Age, 45-49)

Phase 7. Dense irregular surface of rugged topography and moderate to marked activity in periauricular areas. This is a further elaboration of the previous morphology, in which marked surface irregularity becomes the paramount feature. Topography, however, shows no transverse or other form of organization. Moderate granulation is only occasionally retained. The inferior face generally is lipped at the inferior terminus. Apical changes are almost invariable and may be marked. Increasing irregularity of margins is seen. Macroporosity is present in some cases. Retroauricular activity is moderate to marked in most cases. (Age, 50-59)

Phase 8. Breakdown with marginal lipping, macroporosity, increased irregularity, and marked activity in periauricular areas. The paramount feature is a nongranular, irregular surface, with distinct signs of subchondral destruction. No transverse organization is seen and there is a distinct absence of any youthful criteria. Macroporosity is present in about one-third of all cases. Apical activity is usually marked but it is not requisite. Margins become dramatically irregular and lipped, with typical degenerative joint change. Retroauricular area becomes well defined with profuse osteophytes of low to moderate relief. There is clear destruction of subchondral bone, absence of transverse organization, and increased irregularity. (Age, 60+)

Figure A2-4: Phase variation (Buikstra and Ubelaker 1994).

A3: Long bone ageing methods

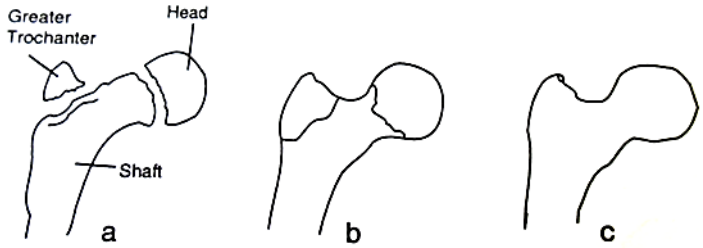


Figure A3-1: Examples of stages epiphyseal union for the proximal femur (Ubelaker 1989a cited in Buikstra and Ubelaker 1994).

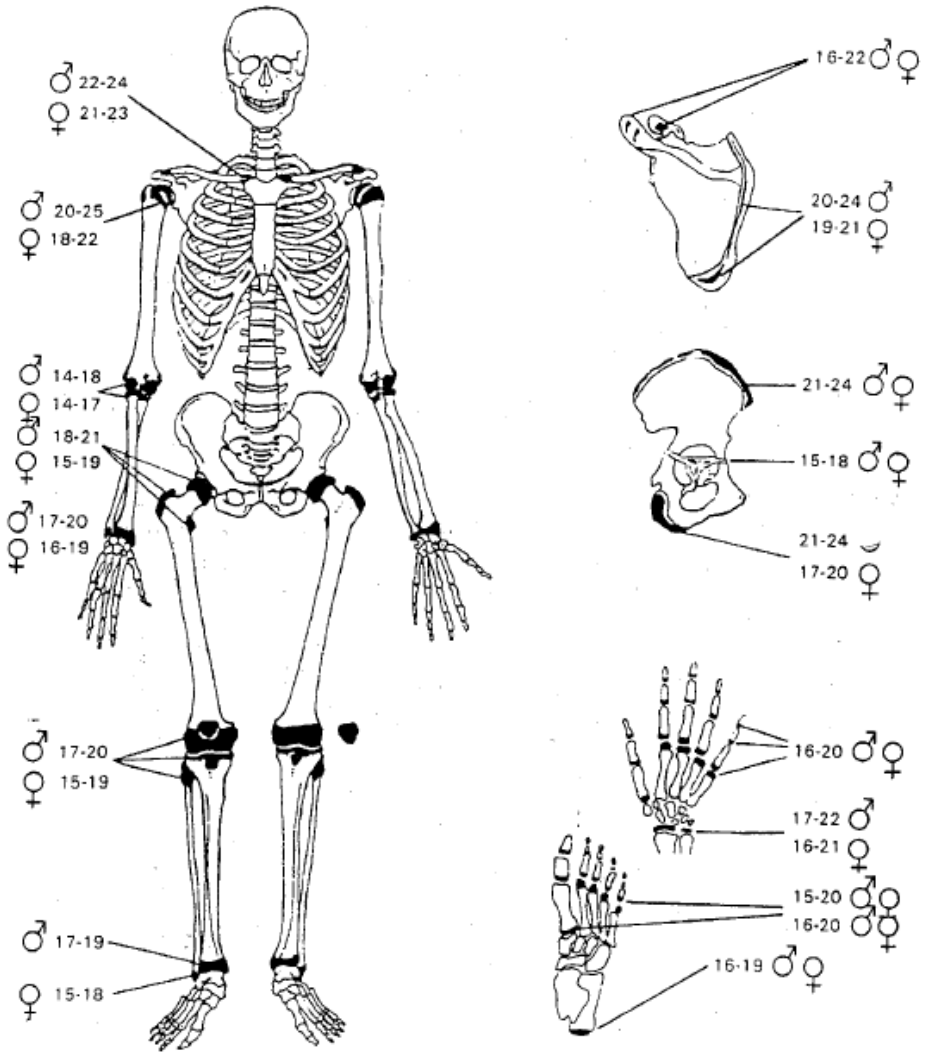


Figure A3-2: Ages at which various skeletal elements fuse (Buikstra and Ubelaker 1994).

A4: Dental ageing methods

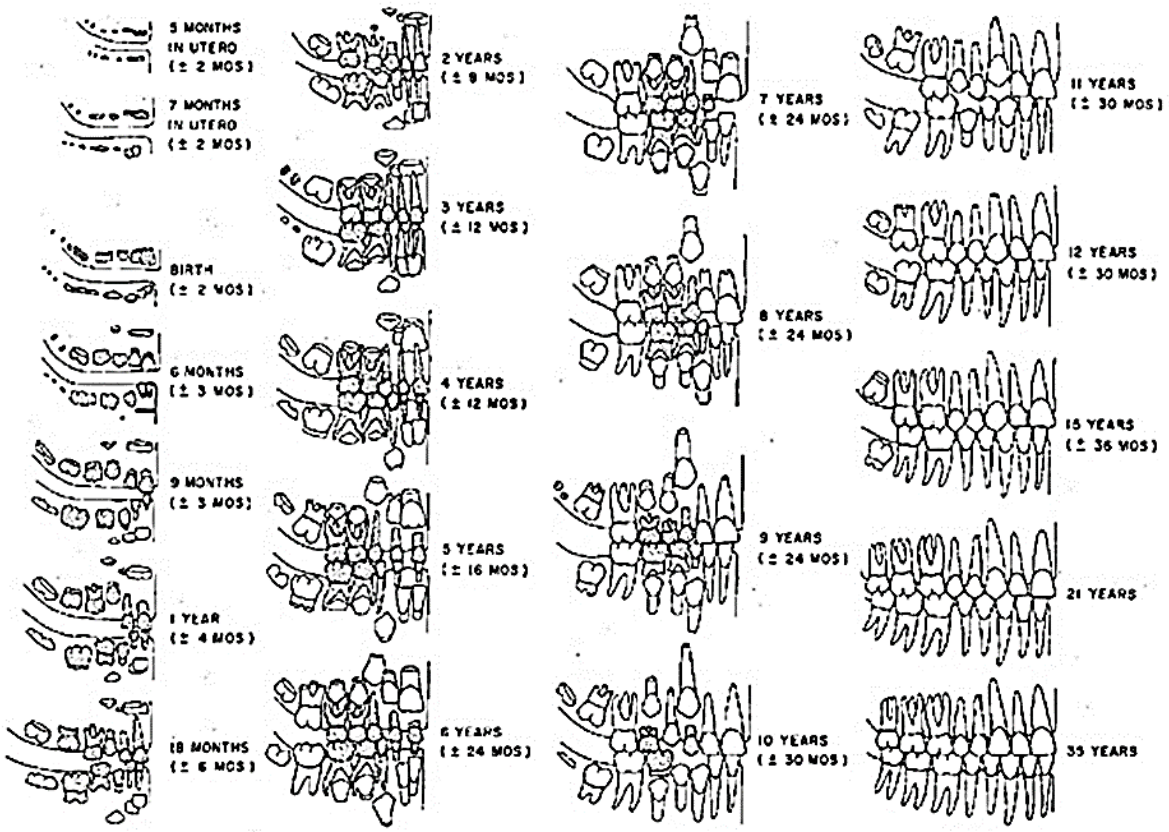


Figure A4-1: Sequence of formation and eruption of teeth (Ubelaker 1989b; cited in Buikstra and Ubelaker 1994).

A5: Human sexing criteria using the pelvis

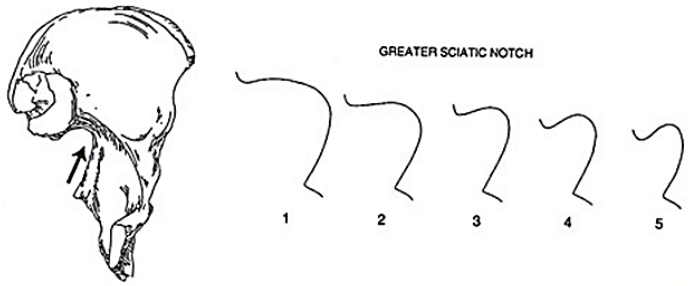


Figure A5-1: Sex differences in the greater sciatic notch found on the pelvis (drawing by P. Walker in Buikstra and Ubelaker 1994).

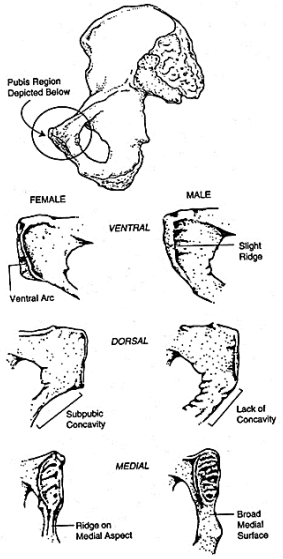


Figure A5-2: Sex differences in the subpubic region: Phenice's technique for sex determination (drawing by Z. Jastrzebski; Buikstra and Mielke 1985; Phenice 1969; cited in Buikstra and Ubelaker 1994).

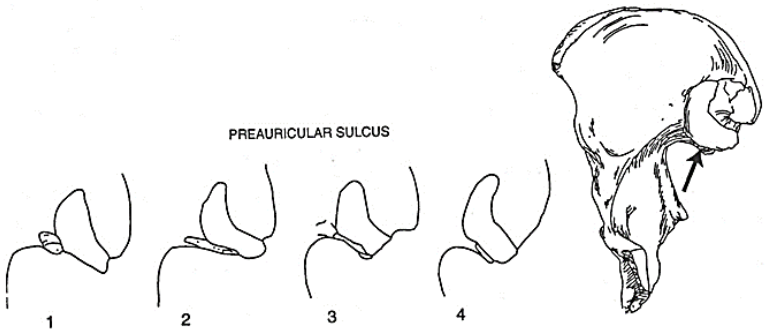


Figure A5-3: Scoring system for preauricular sulcus (drawing by P. Walker, Milner 1992; cited in Buikstra and Ubelaker 1994).

A6: Human sexing criteria using the skull

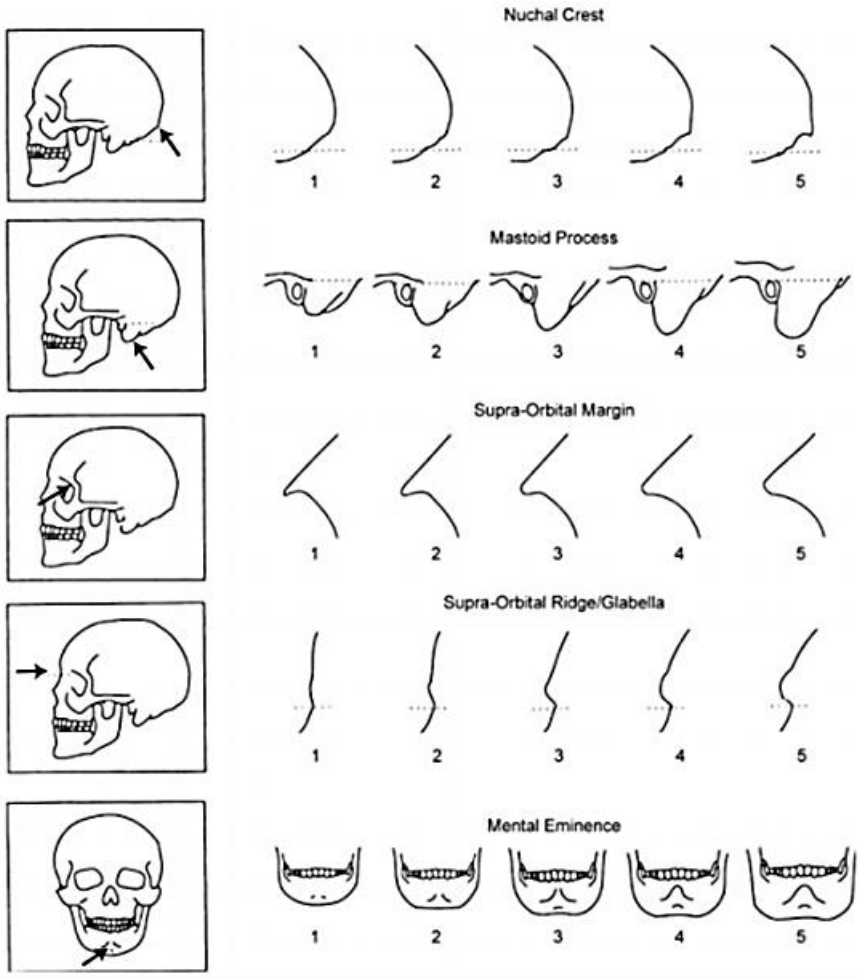


Figure A6-1: Scoring system for sexually dimorphic cranial features (Acsádi and Nemeskéri 1970; cited in Buikstra and Ubelaker 1994).

A7: Ageing criteria for mammals

Table A7-1: Prummel's (1987) data for in utero-neonatal beginning stages of fusion

Location	Pig	Horse	Cattle	Goat	Sheep
Scapula dist.	42 d	230-300d	170-181d	110d	145d
Humerus prox.	81-85d	230d	188-190d	110d	145d
Humerus dist.	81-85d	230-300d	188-190d	110d	115d
Radius prox.	81-85d	-	208d	110d	115d
Radius dist.	88-95d	107d	181d	110d	110d
Ulna prox.	107d	325d	238d	131-145d	140d
Ulna dist.	103d	Post-natal	215d	131-145d	145d
Metacarpus prox.	107d	230d	194-259d	Still unfused at birth	134-142d
Metacarpus dist.	96d	200d	200 days	110d	110d
Ilium	UF	UF	UF	UF	UF
Ischium	UF	UF	UF	UF	UF
Pubis	UF	UF	116d	UF	UF
Rami caudalis	-	-	-	-	134-142d
Oss ischia	-	-	-	-	134-142d
Femur prox.	101-105d	265d	163-203d	128d	145d
Femur dist.	81-85d	225d	163-203d	110d	110d
Trochanter major	-	305d	238d	128d	145d
Tibia prox.	81-85d	265d	181-188d	121-130d	115-120d
Tibia dist.	81-98d	265d	190-208d	121-130d	115-120d
Tuberositas tibiae	30d	300d	Around 260 days	-	-
Calcaneus	Birth	325d	185-255d	130d	135d
Astragalus	107d	>300d	255d	-	134-142d
Metatarsus prox.	107d	230d	194-259d	Still unfused at birth	134-142d
Metatarsus dist.	96d	200d	200d	110d	110d
Phalanges	107d	297-300d	190-208d	130d	117 (I)-145 (II) d

Key: d= days, UF= unfused

Location	Domestic pigs Habermehl 1975	Reiland 1978 Improved Landrace	Wild boar and domestic pig Lesbre 1897/8
Pelvis, acetabulum	1 yr	-	1 yr
Scapula, tuber scapulae	1yr	-	1 yr
Radius, p.	1 yr	10 mths	1 yr
Axial phalanx 2	1 yr	Before 4 mths	1 yr
Abaxial phalanx 2	-	-	-
Humerus, d.	1 yr	10 mths	1 yr
Axial phalanx 1	2 yrs	Before 4 mths	2 yrs
Tibia, d.	2 yrs	12 mths	2 yrs
Abaxial phalanx 1	-	-	-
Axial metapodial	2 yrs	12-14 mths 12-14 mths	2 yrs 2 yrs
Abaxial metapodial	-	-	-
Fibula, d.	2-2.5 yrs	-	2-2.5 yrs
Femur, p.	3.5 yrs	18 mths	3-3.5 yrs
Calcaneum	2-2.5 yrs	-	2-2.5 yrs
Ulna, d.	3.5 yrs	About 20 mths	3.5 yrs
Ulna, p.	3 yrs	-	3 yrs
Femur, d.	3.5 yrs	-	3.5 yrs
Fibula, p.	3.5 yrs	-	3.5 yrs
Radius, d.	3.5 yrs	About 20 mths	3.5 yrs
Humerus, p.	3.5 yrs	About 18 mths	3.5 yrs
Tibia, p.	3.5 yrs	20 mths	3.5 yrs

Table A7-2: The timing of epiphyseal fusion in pig and wild boar (Wilson et al. 1982).

A8: Cremation colour chart

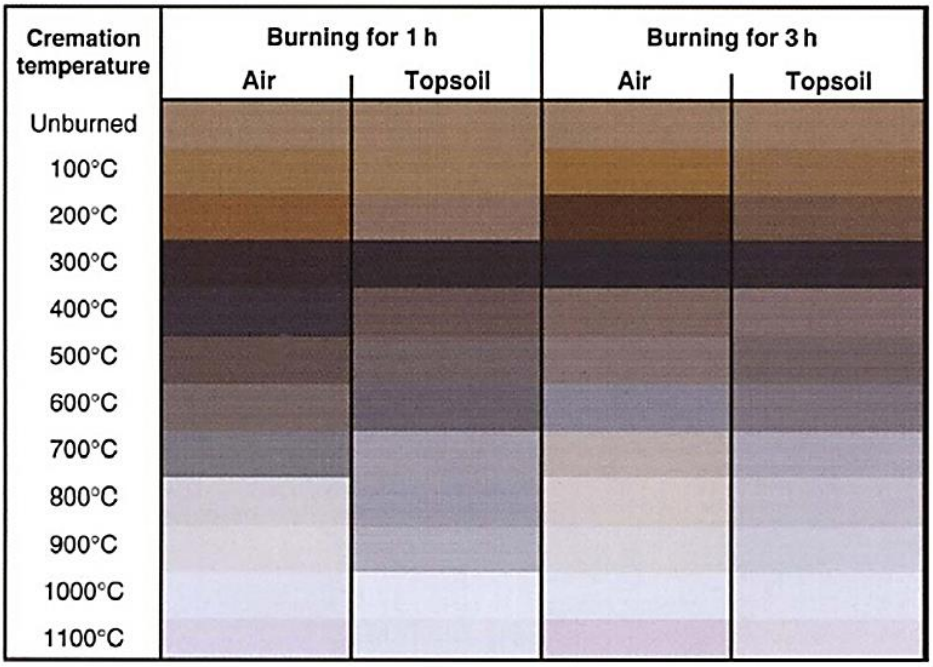


Figure A8-1: Colour chart describing the variation of colour change based on exposure to heat (Schmidt and Symes 2008, plate 21).

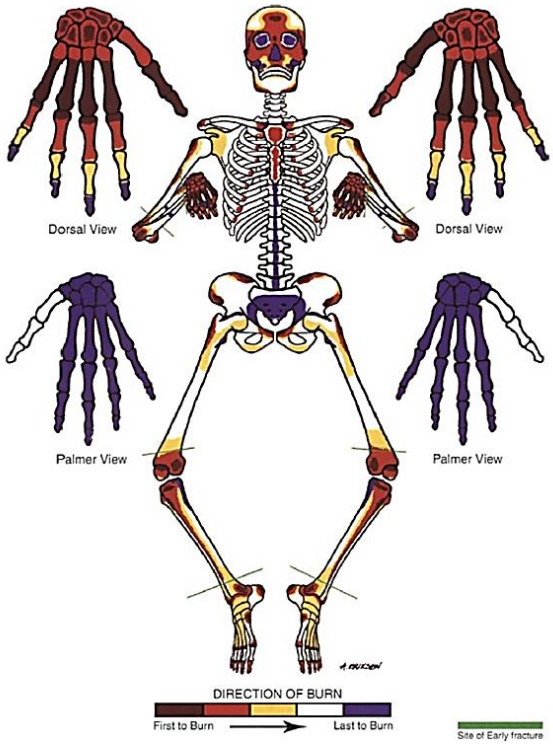


Figure A8-2: Skeletal element burning pattern. (Schmidt and Symes 2008).

A9: Background site research

A9.1 Sites used to for research purposes Chapter 8 – Table 8.2

Site	County	Period	Unmodified animal bones	Modified animal bone	Non-bone w/ zoomorphic imagery
Arms Hills	Cambs.	2nd	X		
Arrington	Cambs	2nd			X
Bath Gate	Glos.	1st	X		
Baldock	Herts.	1st	X		
Bancroft	Bucks.	1st	X		
Bartlow Hills	Essex	2nd	X		
Bayford	Kent	2nd	X		
Birchanger Lane	Essex	mid Claudian	X		
Black Notley	Essex	1st			X
Braughing A	Herts.	2nd	X		
Bonhams Farm	Hants.	Uncert. RB	X		X
Borden	Kent	1st			
Castle Grounds	Berks.	Uncert. RB	X		
Canterbury Castle	Kent	Uncert. RB	X		
Dorchester-on-thames	Oxon.	3rd	X		
Godmanchester	Cambs.	2nd			X
Guilden Morden	Cambs.	Uncert. RB	X		
Hardham	W. Sussex	Uncert. RB	X		
Hampstead Norris	Berks.	2nd	X		
Holborough	Kent	Uncert. RB	X		
Infirmary Field	Cheshire	Uncert. RB	X	X	
Joslin Collection	Essex	1st	X		
Joy Wood	Kent	1st/2nd	X		
Kemps Yard	Hants.	1st	X		
Lankhills	Hants.	4th	X		
Linton	Cambs.	2nd		X	
Little Walden	Essex	Uncert. RB			X

North Marston	Bucks.	1st	X		
Nun's walk	Hants.	1st	X		
Ospringe	Kent	1st/ Uncert. RB	X		
Owslebury	Hants.	3rd	X	X	
Rochford Cherry Orchard	Essex	2nd	X		
Rougham	Suffolk	1st/3rd	X		
Skeleton Green	Herts.	1st/2nd	X		
St. Albans	Herts.	2nd	X	X	
St. Pancras	W. Sussex	1st/2nd	X		
Snailwell	Cambs.	1st	X	X	
Stanstead	Essex	Pre Flavian	X		
The Grange	Herts.	Uncert. RB	X		
Tremworth Down	Kent	2nd	X		
West Tenter St	London	1st	X		
Winall	Hants.	Early 1st	X		

Key : X = present

A9.2: Object list for Capter 8 Tables 8.3 – 8.5

Object Type	Material	Location	Period	Animal association
Hair pin	Bone	Colchester 1971-79 excavation	Roman	made of animal bone
Coin	Copper alloy	Kent	c. AD 267-268	depicting unknown animal
Hair pin	Bone	Greater London Authority	43-410	made of animal bone
Hair pin	Bone	Greater London Authority	43-410	made of animal bone

Hair pin	Bone	Greater London Authority	50-200	made of animal bone
Pin	Bone	Greater London Authority	150-410	made of animal bone
Figurine	Copper alloy	Wiltshire	43-410	cockerel
Figurine	Copper alloy	East Sussex	43-410	goat
Folding knife	Copper alloy	Somerset	43-410	hound chasing hare
Hair pin	Copper alloy	Cheshire West and Chester	43-410	lion/dog
Figurine	Copper alloy	Buckinghamshire	43-410	horse head
Brooch	Copper alloy	Wiltshire	100-200	deer
Figurine	Copper alloy	Wiltshire	43-410	cockerel
Coin	Copper alloy	Cumbria	260-268	unknown animal
Knife	Copper alloy	Kent	43-410	horse head
Brooch	Copper alloy	Kent	50-100	dragonesque figure
Coin	Copper alloy	Wiltshire	267-68	uncertain animal
Folding knife	Copper alloy	Bedford	43-410	hounds chasing hare
Brooch	Copper alloy	West Sussex	2nd cent AD	galloping horse
Finger ring	Semi-precious gem	East Sussex	100-300 AD	zoomorphic creature - duck but most likely a hippocampus or Capricorn
Brooch	Copper alloy	Dorset	100-200	maybe a donkey?
Brooch	Copper alloy	Isle of Wight	100-200	zoomorphic animal
Coin	Copper alloy	Hampshire	286-93	unclear animal lion or bull?
Figurine	Copper alloy	Hertfordshire	43-410	bull

Figurine	Copper alloy	North Lincolnshire	43-410	cockerel
Pin	Copper alloy		200-410	unidentified bird
Vessel	Copper alloy	West Sussex	43-410	animal head - fish/dolphin/cockerel
Knife	Copper alloy	Hampshire	43-410	hare and hound motif
Folding knife	Copper alloy	Hampshire	43-410	hare and hound motif
Brooch	Copper alloy	Somerset	100-200	zoomorphic sea creature
Spoon	Copper alloy	Oxfordshire	100-300	unidentified animal
Folding knife	Copper alloy	Hampshire	43-410	hare and hound motif
Finger ring	Copper alloy	Norfolk	100-200	cornelian with goat and branch of palm tree
Coin	Copper alloy	Cambridgeshire	260-268	unidentified animal face
Brooch	Copper alloy	Dorset	100-300	head of horse
Brooch	Copper alloy	Hampshire	100-250	enamel dog
Brooch	Copper alloy	North Yorkshire	2nd cent AD	stag
Coin	Copper alloy	Wiltshire	260-68	unclear animal
Coin	Copper alloy		275- 285	unclear animal
Coin	Copper alloy	Northamptonshire	260-68	unclear animal
Figurine	Copper alloy	Hertfordshire	43-410	figure of boy holding unindent animal under arm
Buckle	Copper alloy	North Yorkshire	300-410	horses
Brooch	Copper alloy	Oxfordshire	100-200	leopard- from Gaul
Folding knife	Copper alloy	Gloucestershire	43-410	hare and hound motif
Brooch	Copper alloy	Cambridgeshire	100-410	stag

Folding knife	Copper alloy	West Sussex	43-410	hare and hound motif
Brooch	Copper alloy	Essex	100-200	zoomorphic (stag?) plate
Folding knife	Copper alloy	Gloucestershire	43-410	hare and hound motif
Knife	Copper alloy	the Vale of Glamorgan	43-410	anthropomorphic /zoomorphic human head front and back and animal head pointing up with boar shaped face
Figurine	Copper alloy	Buckinghamshire	43-410	probably a hound
Folding knife	Copper alloy	Oxfordshire	43-410	hare and hound motif
Folding knife	Copper alloy	Cambridgeshire	43-410	hare and hound motif
Brooch	Copper alloy	Suffolk	100-200	zoomorphic (dog?)
Buckle	Copper alloy	East Riding of Yorkshire	340-410	dolphin
Staff	Copper alloy	Hertfordshire	1-410	animal shaped fitting (deer/goat/cow?)
Figurine	Copper alloy	Somerset	43-410	goat head
Figurine	Copper alloy	Norfolk	43-410	goat
Finger ring	Copper alloy	Lincolnshire	100-300	incised stag? Motif
Brooch	Copper alloy	Suffolk	100-300	horse
Mount	Copper alloy	Hertfordshire	1-410	lion pining down animal
Spoon	Copper alloy	East Riding of Yorkshire	100-300	crouching feline (lion?)
Figurine	Copper alloy	Lincolnshire	43-410	running stag (red deer?)
Brooch	Copper alloy	Suffolk	100-200	running dog
Spoon	Copper alloy	Hampshire	100-300	crouching elongated feline
Bucket	Copper alloy	Shropshire	45-200	ox-head

Harness fitting	Copper alloy	Hertfordshire	43-200	lion head
Brooch	Copper alloy	Suffolk	100-200	dog
Figurine	Soapstone	Shropshire	100-350	bovine (ox or cow)
Figurine	Copper alloy	North Yorkshire	43-410	goat
Buckle	Copper alloy	Hampshire	325-410	dolphins
Figurine	Copper alloy	Suffolk	43-410	goat
Vessel	Copper alloy	Wiltshire	43-410	zoomorphic figure bird/horse
Mount	Copper alloy	Isle of Wight	300-410	heads of leopards/panthers
Figurine	Copper alloy	Hertfordshire	43-410	seated dog
Figurine	Copper alloy	Hampshire	1-200	crocodile cast figurine
Weight	Copper alloy	Isle of Wight	43-410	dolphin
Brooch	Copper alloy	Essex	100-200	leopard
Knife	Copper alloy	Norfolk	43-410	curved animal neck
Knife	Copper alloy	Hertfordshire	43-410	muzzled animal
Mount	Copper alloy	Essex	43-410	dolphin
Brooch	Copper alloy	Lincolnshire	100-200	running dog or hare
Coin	Copper alloy	Lincolnshire	293-296	possible animal head
Knife	Copper alloy	County of Herefordshire	43-410	hare and hound motif
Knife	Copper alloy	Dorset	43-410	eagle's head
Bracelet	Silver	Trafford	43-410	shaped like serpent or dolphin
Brooch	Copper alloy	Lincolnshire	100-200	hound shaped brooch

Knife	Copper alloy	Northamptonshire	43-410	hare and hound motif
Vessel	Samian pot	Greater London Authority	90-150	decorated with beaded boarder and what looks like tail of an animal
Knife	Copper alloy	Norfolk	43-410	horse head
Spoon	Copper	Isle of Wight	200-400	cop cast spoon neck may be intended to portray animal
Furniture fitting	Copper alloy	Essex	300-410	panther (associated creature to Bachas)
Amulet	Copper alloy	Essex	43-410	boar head and tappers down to resemble a boar tusk
Figurine	Copper alloy	Essex	100-410	cockerel
Figurine	Copper alloy	Essex	100-410	goat
Knife	Copper alloy	Essex	43-410	head wolf or dog
Brooch	Copper alloy	Wiltshire	43-100	leontomorphe (lion bow)
Vessel	Samian pot	Essex	100-300	long tailed hound decoration
Knife	Copper alloy	Buckinghamshire	43-410	hare and hound motif
Vessel	Ceramic	Essex	43-100	ceramic roman pictorial oil lamp with possible leopard decoration
Unidentified object	Copper alloy	Suffolk	43-410	cop alloy object with animal head projecting from edge
Vessel	Copper alloy	Suffolk	43-410	handle with animal sitting on top edge (most likely lion)
Knife	Copper alloy	Suffolk	43-410	handle probably zoomorphic terminal end but too worn to see
Bow brooch	Copper alloy	Suffolk	43-120	cop alloy pin shaped like muzzle?
Plate Brooch	Copper alloy	Suffolk	43-400	animal maybe lion? Face
Steelyard weight	Copper alloy	East Riding of Yorkshire	43-410	human head with animal ears - likely to represent Mercury

Brooch	Lead	Kent	100-200	stylised bird or animal head
Brooch	Copper alloy	Nottinghamshire	43-99	projections to represent the tail of an animal
Cosmetic pestle	Copper alloy	Essex	43-410	male and female animal terminal head ends
Knife	Copper alloy	Surrey	100-200	shaped like a feline head
Vessel	Copper alloy	the Vale of Glamorgan	1-200	bear or dog
Cosmetic mortar	Copper alloy	Suffolk	43-410	examples with male and female animal heads
Brooch	Copper alloy	Somerset	43-410	animal creature with stylised muzzle
Cosmetic mortar	Copper alloy	Suffolk	43-410	bovine head
Brooch	Copper alloy	Lincolnshire	43-410	dog or cat sitting on bow of brooch
Knife	Copper alloy	Hampshire	43-410	hound running motif
Figurine	Copper alloy	Hampshire	100-410	goat figurine
Brooch	Copper alloy	Kent	100-200	animal /bird head with feather/scale design
Vessel	Samian pot	Dorset	43-300	animal designs and other stuff
Plate Brooch	Copper alloy	Suffolk	100-200	animal brooch hare/hound series
Figurine	Copper alloy		43-410	goat
Brooch	Copper alloy	Kent	100-200	animal heads
Figurine	Copper alloy	Suffolk	43-410	dog carrying other animal in its mouth
Vessel	red slip ware		43-410	animal tail
Brooch	Copper alloy	Hampshire	43-100	cast cop alloy 3-d bull brooch
Finger ring	silver/semi-precious stone	Norfolk	100-300	person holding small animal (maybe Neptune holding fish or dolphin
Cosmetic mortar	Copper alloy	Suffolk	43-410	animal head (ram or bull) terminal end

Brooch	Copper alloy	Suffolk	43-410	cop alloy dragonesque brooch
Vessel	Samian pot	Worcestershire	50-250	animal with physique of bull, another animal possibly a deer
Bow brooch	Copper alloy	Suffolk	43-410	Sawfish type brooch end but not as defined as others
Brooch	Copper alloy	Kent	43-300	hare
Brooch	Copper alloy	Lincolnshire	43-200	sawfish type brooch
Brooch	Copper alloy	Lincolnshire	43-200	sawfish type brooch
Brooch	Copper alloy	Lincolnshire	100-300	unidentified animal head
Brooch	Copper alloy	North Lincolnshire	43-200	unidentified animal on top
Knife	Copper alloy	Lincolnshire	43-200	animal head (maybe boar)

A10: Site referencing

A10.1 Non-funerary sites used in Chapter 10.5 Tables 10.2 – 10.5

Site type	Site Name	Location	Period of Occupation	Quant.	Reference info
Open settlement	Baldock 68-72	Baldock, Herts.	Early R-B	MNI	**CHAPLIN, R.E. and MCCORMICK F.** (1986) 'The animal bones'. In I.M. Stead and V. Rigby (eds.) *Baldock: the excavation of a Roman and Pre-Roman settlement 1968-72*. Pp. 396-415.
Town	Baldock AML 3854	Baldock, Herts.	Early R-B	MNI	**Chaplin R.E. and McCormick F.** (1983) *Report on the animal bones from an Iron Age and Romano-British site at Baldock, Hertfordshire.*
Enclosure/ Settlement	Blackhorse Rd 58-74	Letchworth, Herts.	R-B, native site	NISP	**LEGGE, A., WILLIAMS, J. and WILLIAMS, P.** (1989). 'Animal remains from Blackhorse Road, Letchworth'. In J. Moss-Eccardt (ed.) *Archaeological investigations in the Letchworth area, 1958-1974*. Pp. 90-95.
Villa	Boxmoor House School	Nr Hemel Hampstead, Herts	Romano-British (broad)	MNI	**GEBBELS, A.** (1977) 'Animal bones'. In D.S. Neal (ed.) Northchurch,

					Boxmoor and Hemel Hempstead Station: the excavation of three Roman buildings in the Bulbourne valley. Pp. 106-110.
Villa	Dicket Mead	Welwyn, Herts.	Late R-B (3rd -4th)	NISP and MNI	**KING, A.** (1986) 'Animal bones'. In T. Rook (ed.) *The Roman villa site at Dicket Mead, Lockleys, Welwyn.* Pp. 164-9.
"	"	"	"	"	**RIELLY, K.** (1986) 'Bird bones'. In T. Rook (ed.) *The Roman villa site at Dicket Mead, Lockleys, Welwyn*. Pp. 169-70.
Villa	Gadebridge Park	Hemel Hampstead, Herts	Romano-British (broad)	MNI	HARCOURT, R.A. (1974) 'The animal bones'. In D.S. Neal (ed.) *The excavation of the Roman villa in Gadebridge Park, Hemel Hempstead 1963-8*. Pp. 256-62.
Villa	Gorhambury 72-82	Nr St. Albans, Herts	Early R-B (1st -2nd); Late R-B (3rd-4th)	NISP	**LOCKER, A.** (1990) 'The mammal, bird and fish bones'. In D.S. Neal, A. Wardle and J. Hunn (eds.) *Excavation of the Iron Age, Roman and Medieval settlement at*

					Gorhambury, St Albans. Pp. 205-12.
Villa	Northchurch villa	Nr Berkhamstead, Herts.	Early R-B, Mid R-B, and Late R-B	MNI	**GEBBELS, A.** (1977) 'Animal bones'. In D.S. Neal(ed.) *Northchurch, Boxmoor and Hemel Hempstead Station: the excavation of three Roman buildings in the Bulbourne valley*. Pp. 48-52.
Town	Puckeridge-Braughing 71-72	Bishop's Stortfird/Stevenage, Herts.	Early R-B, mid R-B, Late R-B.	NISP and MNI	**FIFIELD, P.W.** (1988) 'The faunal remains'. In T.W. Potter and S.D. Trow (ed.) *Puckeridge-Braughing, Herts: The Ermine Street excavations 1971-2. The late Iron Age and Roman settlement.* Pp. 148-53.
Town	Verulamium 55-61	St. Albans, Herts.	R-B (broad)	NISP	**MARPLES, B.J. and WILSON, B.** (1984) 'The animal bones'. In S. Frere (ed.) *Verulamium Excavations Volume III.* Pp. 294-6.

*Used Albarella and Prinie (2008) database to conduct search.

A10.2: Site reference data from Chapter 10 – Table 10.15

Sites	***Site report***
West Sussex	
St Pancras, Chichester	**DOWN, A. and RULE, M.** (1971) *Chichester Excavations 1*. Chichester: Phillimore.
Hardham	**SALZMAN, L.F.** (1935) *The Victoria County History of the counties of England. A History of Sussex*. Volume 3. London: University of London/OUP.
Avisford	**SALZMAN, L.F.** (1935) *The Victoria County History of the counties of England. A History of Sussex*. Volume 3. London: University of London/OUP.
Wiggonholt	**EVANS, K.J.** (1974) 'Excavations on a Romano-British site, Wiggonholt, 1964.' *Sussex Archaeological Collections*. Vol. 112. Pp. 97-151.
Lancing Ring (inhum)	**SALZMAN, L.F.** (1935) *The Victoria County History of the counties of England. A History of Sussex*. Volume 3. London: University of London/OUP.
Hampshire	
Bonhams Farm	**COMBS, W.A.** (1847) 'Note in 'Proceedings of the Association''. *Journal of the British Archaeological Association*. Vol. 2. Pp. 265-283.
Kemps Yard	**MILLETT, M.** (1987) 'An early Roman burial tradition in Central Southern England'. *Oxford Journal of Archaeology*. Vol. 6. Pp. 63-68.
Neatham	**MILLETT, M. and GRAHAM, D.** (1986) *Excavations on the Romano-British small town at Neatham, Hampshire, 1969-1979*. Southampton: Hampshire Field Club and Archaeological Society. Pp. 56-7.
Owslebury	**COLLIS, J.** (1977) 'Owslebury (Hants) and the problem of burials on rural settlements'. In R. Reece (ed.) Burial in the Roman World. *CBA Research Report*. No. 22. London. Pp. 26-34.

Rampier Copse	**BOON, G.C.** (1974) *Silchester: The Roman Town of Calleva*. David, and Charles, Newton Abbott.
Grange Rd	**BIDDLE, M.** (1967) 'Two Flavian burials from Grange Road, Winchester'. *The Antiquaries Journal*. Vol. 47 (2). Pp. 224-250.
Milland	**JONES, V.** (1978) 'Milland (Site 328)'. In J. Collis (ed.) *Winchester Excavations Volume II: 1949-1960. Excavations in the suburbs and the Western part of the Town city of Winchester.* Pp.93-103.
Nun's walk	**COLLIS, J.** (1978) *Winchester Excavations Volume II: 1949-1960. Excavations in the suburbs and the Western part of the Town city of Winchester.* Pp. 66-93, 149-155.
Winall	**COLLIS, J.** (1978) *Winchester Excavations Volume II: 1949-1960. Excavations in the suburbs and the Western part of the Town city of Winchester.* Pp. 66-93, 149-155.
Lankhills	**CLARKE, G.** (1979a) *The Roman Cemetery at Lankhills*. Oxford: Winchester Studies 3. **CLARKE, G.** (1979b) *Winchester Studies 3. Pre-Roman and Roman Winchester, Part 2: The Roman Cemetery at Lankhills.* Oxford: Oxford University. Pp. 239-45.
Kent	
Borden	**JESSUP, R.F.J.** (1959) 'Barrows and walled cemeteries in Roman Britain'. *Journal of the British Archaeological Association.* Vol. 22. Pp. 1-32.
Canterbury Castle	**BENNETT, P., FRERE, S., AND STOW, S.** (1982) *Excavations at Canterbury Castle: Volume 1. The Archaeology of Canterbury*. Maidstone: Canterbury Archaeological Trust and Kent Archaeological Society. Pp. 33-34.
Tremworth Down	**ROACH SMITH, C.** (1856) *Inventorium Sepulchrale*. Private subscription. London.

Joy Wood	**SCOTT ROBINSON, W.A.** (1883) 'Traces of Roman occupation in and near Maidstone.' *Archaeologia Cantiana*. Vol. 15. Pp. 68-80.
Ospringe	**WHITING, W.** (1926) 'The Roman Cemeteries at Ospringe, Description of finds concluded.' *Archaeologia Cantiana.* Vol. 38. Pp. 123-153. **WHITING, W., Hawley, W., and May, T.** (1931) 'Report on the excavation of the Roman Cemetery at Ospringe, Kent.' *Society of Antiquaries Research Report 8.*
Bayford	**SMITH, R.A.** (1922) *A Guide to Antiquities of Roman Britain in the Department of British and Medieval Antiquities*. London: British Museum. Pp. 86, 97. **PAGE, W.** (ed.) (1932) *The Victoria County History of the counties of England. A History of Kent*. Volume 3. London: St. Catherine Press.
Holborough	**JESSUP, R.F.J.** (1954) 'Excavation of a Roman barrow at Holborough, Snodland'. *Archaeologia Cantiana.* Vol. 68. Pp. 1-61.
Northbourne	**PHILP, B.** (1978) 'A Romano-British Cemetery at Northbourne, Kent'. *Kent Archaeological Review.* No. 52. Pp. 30-49.
Lullingstone	**MEATS, G.W., GREENFIELD, E., and BIRCHENOUGH, E**. (1952) 'The LullingstoneRoman Villa: Second Interim Report'. *Archaeologia Cantiana* 65, pp. 26-78.
Snodland	**OCOCK, M.A. and SYDDELL, M.J.E.** (1967) 'The Romano-British Buildings in Church Field, Snodland'. *Archaeologia Cantiana*. Vol. 82. Pp. 198.
Springhead	**PENN, W.S.** (1968) 'Springhead: Miscellaneous Excavations'. *Archaeologia Cantiana*. Vol. 83. Pp. 170.
Upper Halling	**PAGE, W.** (ed.) (1932) *The Victoria County History of the counties of England.*

	A History of Kent. Volume 3. London: St. Catherine Press.
Essex	
Bartlow Hills	VICTORIA COUNTY HISTORIES (VCH) (1963) *The Victoria County History of the counties of England. A History of Essex*. Volume 3. University of London/OUP. Pp. 41-42, 179.
Birchanger	**Medlycott, M.** (1994) 'Iron Age and Roman material from Birchanger, near Bishops Stortford. Excavations at Woodside Industrial Park 1992'. *Essex Archaeology and History 25.* Pp. 28-46.
Little Waltham	**DRURY, P.J.** (1978) *Excavations at Little Waltham, 1970-1. CBA Research Report*. No. 26. London.
Stansted	**ANONYMOUS** (1989) 'Chasing after dinosaurs at Stanstead airport'. *Essex Archaeology (Essex County Council Supplement)*. No. 6. Pp. ix.
Stanway	**CRUMMY, P.** (1997) 'The Stanway burials'. *Current Archaeology*, Vol. 153. Pp. 337-42. **MURPHY, P.** (1992) 'Stanway, Essex: plant remains from Late Neolithic/Early Bronze and Middle Iron Age pits and Late Iron Age burials'. *Ancient Monuments Laboratory Report 29/92*.
Joslin Collection	MAY, T. (1930) *Catalogue of Roman pottery in the Colchester and Essex Museum*. Cambridge University Press.
Shoebury	VICTORIA COUNTY HISTORIES (VCH) (1963) *The Victoria County History of the counties of England. A History of Essex*. Volume 3. University of London/OUP. Pp. 41-42, 179.
Mucking	**JONES, W.T.** (1979) 'A Romano-British Stone Coffin Burial at Mucking' *Panorama*. Vol. 22. Pp. 26-30.
Buckinghamshire	
Bancroft	**WILLIAMS, R. J. and ZEEPVAT, R. J.** (1994) *Bancroft: a Late Bronze Age / Iron Age Settlement, Roman Villa and*

	Temple/Mausoleum, Aylesbury. Buckinghamshire Archaeological Society.
North Marston	**WILSON, D.R.** (1974) 'Roman Britain in 1973: I. Sites explored'. *Britannia*. Vol. 5. Pp. 397-460.
Cambridgeshire	
Snailwell	**STEAD, I. M.** (1967) 'A La 'Rile III burial at Welwyn Garden City'. *Archaeologia*. Vol. 101. Pp. 1-62.
Arms Hills	**LIVERSIDGE, J.** (1977) 'Roman burials in the Cambridge area'. *Proceedings of the Cambridge Antiquarian Society.* Vol. 67. Pp. 11-38.
Emmanuel knoll	**ALCOCK, J.** (1980) 'Classical religious belief and burial practice in Roman Britain'. *The Archaeological Journal.* 137. Pp. 50-85.
Guilden Morden	**LIVERSIDGE, J.** (1977) 'Roman burials in the Cambridge area'. *Proceedings of the Cambridge Antiquarian Society.* Vol. 67. Pp. 11-38. **LETHBRIDGE, T.C.** (1934) 'Further excavations in the early Iron Age and Romano-British Cemetery at Guilden Morden'. *Proceedings of the Cambridge Antiquarian Society*. Vol. 36. Pp. 109-120.
Hildersham	**LIVERSIDGE, J.** (1977) 'Roman burials in the Cambridge area'. *Proceedings of the Cambridge Antiquarian Society.* Vol. 67. Pp. 11-38.
Red church field	**LIVERSIDGE, J.** (1977) 'Roman burials in the Cambridge area'. *Proceedings of the Cambridge Antiquarian Society.* Vol. 67. Pp. 11-38.
Hey Hill	**LIVERSIDGE, J.** (1977) 'Roman burials in the Cambridge area'. *Proceedings of the Cambridge Antiquarian Society*. Vol. 67. Pp. 11-38. **TAYLOR, A.** (1984) 'A Roman Stone coffin from Stuntney and Gazetteer of similar coffins in Cambridgeshire'. *Proceedings of the Cambridgeshire Archaeological Society*. Vol. 73. Pp. 20.

Park Lane	**GARROOD, J.R.** (1955) 'Romano-British burials at Godmanchester'. *Proceedings of the Cambridgeshire Antiquarian Society*. Vol. 48. Pp. 47-48.
Oxfordshire	
The Vicarage	**SALZMAN, L.F.** (1939) *The Victoria County History of the counties of England. A History of Oxfordshire*. Volume 1. University of London/OUP. Pp. 293.
Barton Court (inhum)	**FRERE, S.S.** (1977) 'Roman Britain in 1976: I. Sites explored'. *Britannia*. Vol. 7. Pp. 419. **WILSON, B.** (1986) Faunal remains: animal bones and shells. In D. Miles (ed.) *Archaeology at Barton Court Farm, Abingdon, Oxfordshire*. Oxford Archaeology Unit and the Council for British Archaeology. Fiche 8, A1-G24. Oxford.
Bloxham (inhum)	**KNIGHT, W.E.J.** (1938) 'A Romano-British Site at Bloxham, Oxon'. *Oxoniensia*. Vol. 2. Pp. 55.
Cassington (inhum)	**HARMAN, M., MOLLESON, T.I., and PRINCE, J.L.** (1981) 'Burials, bodies and beheadings in Romano-British and Anglo-Saxon Cemeteries'. *Bulletin of the British Museum (Natural History): Geology*. Vol. 35 (3). Pp. 160, 170-171.
Stanton Harcourt (inhum)	**MCGAVIN, N.** (1980) 'A Roman Cemetery and trackway at Stanton Harcourt'. *Oxonesia*. Vol. 45. Pp. 112-122.
Church Piece (inhum)	**HARMAN, M., LAMBRICK, G., MILES, D., and ROWLEY, T.** (1978) 'Roman Burial grounds around Dorchester-on-Thames' *Oxonesia.* Vol. 43. Pp. 1-16.
Hertfordshire	
Baldock (Site D)	**STEAD, I.M. and RIGBY, V**. (1986) *Baldock: the excavation of an Iron Age and Romano-British settlement, 1968-1972*. London: Society for the Promotion of Roman Studies. Pp. 63-73.

Baldock (Site F)	**STEAD, I.M. and RIGBY, V.** (1986) *Baldock: the excavation of an Iron Age and Romano-British settlement, 1968-1972*. London: Society for the Promotion of Roman Studies. Pp. 63-73.
Baldock (CP)	**STEAD, I.M. and RIGBY, V.** (1986) *Baldock: the excavation of an Iron Age and Romano-British settlement, 1968-1972*. London: Society for the Promotion of Roman Studies. Pp. 63-73.
Baldock (78-94)	**STEAD, I.M. and RIGBY, V.** (1986) *Baldock: the excavation of an Iron Age and Romano-British settlement, 1968-1972*. London: Society for the Promotion of Roman Studies. Pp. 63-73.
The Grange	**ROOK, A.G**. (1973) 'Excavations at the Grange Romano-British Cemetery, Welwyn, 1967'. *Hertfordshire Archaeology*. Vol. 3. Pp. 1-30. **WELLS, C.** (1973) 'Notes on the cremations'. In A.G. Rook 'Excavations at the Grange Romano-British Cemetery, Welwyn, 1967'. *Hertfordshire Archaeology*. Vol. 3. Pp. 19-29.
Folly Lane	**NIBLETT, R.** (1999) *The excavation of a ceremonial site at Folly Lane, Verulamium*. Britannia Monograph 14. London.
St. Stephen's cemetery	**MCKINLEY, J.I.** (unpublished) *St. Stephen's Romano-British Cemetery, St. Albans. Human Bone Archive Report*. (1992).
King Harry Lane	**STEAD, I.M. and RIGBY, V.** (1989) *Verulamium: The King Harry Lane Site*. Archaeological Report. No. 12. English Heritage.
Braughing 'A'	**PARTRIDGE, C.** (1977) 'Excavations and fieldwork at Braughing, 1968-73' *Hertfordshire Archaeology.* Vol. 5. Pp. 22-108.
Braughing 'B'	**PARTRIDGE, C**. (1977) 'Excavations and fieldwork at Braughing, 1968-73' *Hertfordshire Archaeology.* Vol. 5. Pp. 22-108.

Skeleton Green	**PARTRIDGE, C.** (1981) *Skeleton Green. A Late Iron Age and Romano-British Site*. Britannia Monograph Series. No. 2. Society for the Promotion of Roman Studies. London. Pp. 80-83. **WELLS, C.** (1981) 'Report on Three Series of Romano-British Cremations and four inhumations from Skeleton Green'. In C. Partridge (ed.) *Skeleton Green. A Late Iron Age and Romano-British Site*. Britannia Monograph Series. No. 2. Society for the Promotion of Roman Studies. London. Pp. 277-304.
Cross Farm	**ROBERTS, J.** (1996) 'Cross Farm Cremation Cemetery: The skeletal Report'. *Archaeological Research & Consultancy At The University of Sheffield 238.*

Site report references not referred to in the text.

A11: Raw data tables (see inserted CD)

A12: Faunal Photo Catalogue (see inserted CD)