Hybrid waterscapes: an examination of meaning-laden water flow in the towns of Roman Britain

Volume I

Jay Ingate

Thesis submitted for the degree of Doctor of Philosophy

2014

Abstract

Hybrid waterscapes: an examination of meaning-laden water flow in the towns of Roman Britain.

Jay Ingate

Thesis submitted for the degree of Doctor of Philosophy

In the past twenty years there has been a sustained theoretical challenge to issues of Roman identity in the western provinces. However, despite this body of work, the towns of Roman Britain are still primarily defined by the extent to which they embraced a set of supposedly Mediterranean urban features. This research uses the medium of water to thoroughly explore the reasons behind this approach and the disparity it has created in respect to studies of prehistory. While water is undoubtedly a thread of continuity in human settlement, scholars of the Roman period have been particularly concerned with outlining its urban utilisation as a sign of familiarity, or shared civilisation, between the Roman period and modernity. Subsequently, Roman era structures related to water (such as aqueducts, wells, bridges and bathhouses) have been portrayed as examples of a cultural advancement that was distinct from previous activity within the immediate landscape. This approach has therefore discounted the rich and powerful associations pertaining to water throughout the temperate European prehistory.

Through analysis of twenty one of the most influential Roman towns of Britain, this thesis shows how local beliefs would have been an integral part of how one perceived and experienced urban water features. It will be emphasised that the entanglement between these associations and complex, but receptive, incoming cultural influences would have played a key role in creating hybrid waterscapes within these settlements. Fully acknowledging this complex cultural presence of water underlines how the experience of towns in Roman Britain was a product of a number of different perspectives; meaning these places cannot be fully understood without a careful consideration of local context.

Acknowledgements

- I would not have been able to undertake this research without the studentship awarded to me by the School of European Culture and Languages in 2009. I hope this thesis meets the high standards of the school and reflects the significant investment that it made in the project. The support and guidance of many individuals within the Classics and Archaeology department has been an essential part of getting to this point. Particular thanks must be given to my supervisor Steve Willis, who has been a positive influence throughout this process and has undoubtedly enhanced the thesis with his insightful feedback; I always left our supervisory meetings with new ideas and an enthusiastic outlook on the future. I am also thankful to my second supervisor Ellen Swift for her assessment of the work at the pivotal stages of the PhD upgrade and the final draft.
- There are a number of individuals who I contacted for information regarding particular sites/topics that have been explored in the thesis. Patty Baker, Richard Brickstock, John Casey, Matt Edgeworth, Tom Moore, Michael Mulryan, Simon Pratt, Richard Reece, Adam Rogers, Jake Weekes, and Simon West all provided material or ideas that were important to this research project.
- Thanks must also go to all the friends who have helped me enjoy these last four years by providing timely distractions to the considerable workload!
- I am grateful for my family's unwavering support during some difficult times. My uncle, Christopher Adams, diligently proof-read a draft of this thesis and provided many helpful suggestions; my grandmother, Margaret Adams, has offered indispensible financial support during my undergraduate and postgraduate degrees; my sister, Eleanor Ingate, has been a source of great fun and laughter throughout the writing process; my mother and father, Jill and Graham Ingate, have always encouraged me to pursue my interests and without their guidance and assistance I would not have had the opportunity to undertake PhD level research.
- Finally, I must acknowledge the contribution of my examiners Ray Laurence and J.D. Hill, who suggested a number of revisions that significantly strengthened the thesis.

Chapter 1: Research Aims and Theoretical Approach

1.1 Introduction

The principal aim of this thesis is to challenge the portrayal of Roman era towns in Britain as primarily characteristic of an incoming monolithic cultural identity. This will be achieved by focusing on the role of water in these settlements, from its roots in the Iron Age, through to the adoption of a dedicated urban feature set in the Roman period. It will be proposed that the complex set of ritual beliefs and symbolic associations pertaining to water could have had a profound impact on the creation and experience of the Roman town. It will be observed that many 'familiar' water features of the Roman town are not devoid of local associations, stemming from prehistoric activity in the immediate landscape. Therefore the traditional portrayal of these urban water features as distinct cultural innovations, predominantly representative of an incoming Roman influence, will be rigorously examined. To this end, the format of the thesis will be divided into sections that deal with recognisable parts of the urban waterscape: bridges, wells, aqueducts/piped water and bathhouses. Each of these subject areas will be explained in the context of their 'Roman' tradition and the respective landscapes of Britain into which they were eventually integrated. The relationship between these incoming and local beliefs will subsequently be explored using a series of case studies. The examples analysed in each section will be drawn from the range of settlements (fig. 1) that have been identified as the principal urban centres of the province by authors like John Wacher (1975; 1995):

- Aldborough (*Isurium*)
- Brough-on-the-Humber (*Petuaria*)
- Caerwent (*Venta Silurum*)
- Caistor-by-Norwich (*Venta Icenorum*)
- Canterbury (*Durovernum*)
- Carmarthen (*Moridunum*)
- Chelmsford (*Caesaromagus*)
- Chichester (*Noviomagus*)
- Cirencester (*Corinium*)
- Colchester (*Camulodunum*/*Colonia Claudia Victricensis*)
- Dorchester (*Durnovaria*)
- Exeter (*Isca Dumnoniorum*)
- Gloucester (*Glevum Colonia*)
- Leicester (*Ratae Corieltauvorum*)
- Lincoln (*Lindum Colonia*)
- London (*Londinium*)
- Silchester (*Calleva Atrebatum*)
- St. Albans (*Verulamium*)

- Winchester (*Venta Belgarum*)
- Wroxeter (*Viroconium*)
- York (*Eboracum*)

These sites have traditionally been labelled, in general terms, the 'most Roman' settlements of the province and thus the foundation of conventional discourse. Therefore addressing the deficiencies of erstwhile analysis, in respect to these towns, is a key aspect of moving the critical understanding of the urban phenomenon in Roman Britain forward. As Rogers (2008; 2011a) has pointed out, in his recent contributions studying the later life of Roman towns in Britain, these twenty one settlements also provide the best archaeological evidence from which one can interpret urban change. Despite this, the vagary of archaeological research over the last century has inevitably led to a lack of uniformity in the evidence available. As a consequence some of these towns will be less helpful in aiding an exploration and understanding of the relationship between water and the Roman town. As the water features analysed in this thesis are not a controversial presence in settlements of this period, there will be a concentration on sites where the evidence is substantial enough to warrant sustained discussion.

To sufficiently capture the scope of change within these urban landscapes, it is necessary to consider a broad chronology. Indeed, the inevitable variation between sites adds to this requirement. In line with this, the thesis will consider evidence from the Late Iron Age to the end of the third century A.D. In general, the first and second century evidence will form the backbone of the discussion; these two centuries see the bulk of the Roman urban infrastructure being constructed in the selected towns. The third century material is largely incorporated to illustrate how certain beliefs may have endured, and found new forms of expression, in the experience of the towns. Furthermore, there is also some essential background of Italian water traditions that obviously falls outside this chronological framework, but which is necessary to take into account in outlining the approach subsequently followed in Britain. Overall, the intent is to demonstrate how the meaning-laden nature of water played a part in creating a hybridised urban experience in the province of Britannia. This argument forms the theoretical backbone of the thesis and will be discussed in more detail during this opening chapter.

From a methodological perspective, each chapter will follow a similar format. Initially there will be a theoretical appraisal of the particular feature in question, assessing its

treatment within the existing literature and its potential usefulness for the thesis as a whole. This will be followed by a general survey of the significance this feature held in a larger Roman and temperate European setting. The analysis of Roman practice will be assessed by consulting the classical sources, relevant numismatic and epigraphic sources, plus a review of urban geographic settings in Italy (with particular reference to Rome). This consideration of 'Roman' material is not intended to be exhaustive. Instead, the purpose of the review is to highlight perspectives on the topic that have been underemphasised in the extensive discourse on Roman urban water in the Mediterranean. In this regard, it will be a particular focus in each chapter to emphasise any obvious signs of similarity to the British Iron Age evidence. Furthermore, the extent to which the various water features embrace local diversity is of clear importance in considering provincial examples. Subsequently, the central theme of each chapter will then be explored in a British setting utilising the archaeological evidence from the previously mentioned list of primary Roman towns. The conclusion of each chapter will then attempt to ascertain the extent to which the particular water feature represents a realistic element of hybridity within the British setting.

The themes of each chapter have been sequenced to reflect the degree to which interpretation of the occurrence of the urban water feature, as presented here, differs from conventional thought. So the thesis will begin with analysis of urban bridges and their relationship to significant points of surrounding waterscapes (such as confluences and islands). Bridge structures are certainly known to exist in pre-Roman contexts in Britain and are often portrayed as having non-practical functions. Similarly, there is a limited acknowledgement on the behalf of scholars studying the Roman period that bridges were involved in ritual engagement with water post-conquest, even if this not directly linked to previous activity in the landscape. Therefore discussing hybrid perspectives on these structures does not necessarily require a significant leap of faith. The treatment of wells in the academic literature is, likewise, a mixed subject with a body of work concerning both eras. However, there is also a problematic modern belief-set that can impact upon and inform our treatment of such features. Such bias continues, and is more pronounced, in the presentation of Roman aqueducts and sewers; the presentation of these structures as largely practical is particularly widespread. Finally, the study of bathhouses in Britain is by convention an area almost entirely focused on Roman identity and provincial betterment. It is hoped that the momentum created over the previous chapters will force a reappraisal of

this viewpoint and show it to be outdated. The subsequent discussion will then tie together these elements to create a considered sense of the various urban waterscapes and the impact they can have on our view of Roman towns in Britain.

1.2 Aims

It is intended that this thesis will advance the subject in a number of ways. Notable among these is an acknowledgement that, on both popular and academic levels, the perception of water is subject to significant modern bias. This issue echoes a wider sense of cultural alignment between the modern world and the Roman period that must be questioned. As a result this thesis aims to:

- Expose the problematic association between modernity and the Roman period, particularly in relation to urban space.
- Explore the disparity traditional approaches have created in our understanding of the past by highlighting the conception of water within its Iron Age and Roman contexts.
- Outline the complex role of water in the creation and experience of key Roman towns in Britain.
- Propose new approaches to the definition of urban space based on the concept of hybridity.

To this end, the following chapter aims to justify both the theoretical need for this work along with the research direction.

1.3 The Roman Town and the Modern Town

One of the most problematic aspects inherent in the study of Roman settlement in Britain is the use of the word ‘town’; how the town in Roman times and the town in the modern world are defined and understood, accordingly, needs some consideration. The Oxford English dictionary defines it as a settlement of a certain size, larger than a village and

smaller than a city; the central part of a neighbourhood, with its business or shopping areas; densely populated areas, in contrast with surrounding country. So the key element of the definition is that a town represents a focal point for population and activities. There is also an acknowledgement that, at least in common parlance, "going to town" refers specifically to a central area within the larger geographic territory of the settlement. It is this centralisation that forms the basis for the use of the term town in a Roman context, in contrast to the preceding periods. Iron Age *oppida*, despite being significant features, are often presented as multi-focal. By contrast, the Roman town possessed structures like the *fora*, *macella*, temples, and bathhouses, which can appear to have equivalents in modern centres. Combine this with the fact that many of these Roman towns directly underlie significant modern towns and shared terminology is increasingly understandable.

Despite the fact that this definition of the town would satisfy most people, its fixed nature produces a varied set of drawbacks. The concentration on central features (shops, businesses, entertainment etc.), for instance, is increasingly an unreliable way to assess our own towns. Over the last ten years the role of the Internet has drastically altered the economic and social parameters of life on a global scale. This has begun to have a visible effect on the way we view our own town centres. A great deal of economic or social activity is now carried out online, leading to a downturn in business for previously well-placed amenities. These areas, which were at the heart of the community, are now being marginalised and transformed. This is not only on a physical level (i.e. shop closures) but also in more ephemeral ways. There is a burgeoning tendency for people to view town centres negatively, as places where undesirable activity could take place. Indeed, there may be a concerted effort to avoid these places. If one takes this into consideration it is debatable to what extent the above definition can really encompass the modern reality of the town. In fact, even the idea of size is fundamentally challenged by cities and towns in Britain; the former sometimes being much smaller than the latter due to various cultural requirements.

If this comfortable definition is inadequate to describe our own modern settlements, we should acknowledge the dangers of using it to label settlements of the past. While avoiding the term is probably unfeasible in a Roman context, we have to be aware that it does not represent a finite set of attributes. Just as we increasingly change our attitude towards central urban areas, based on a number of influences, we have to acknowledge the presence

of equally important (and possibly ephemeral) cultural associations in the Roman period. These complexities are what intrinsically define a town, and the experience of individuals who live in it. The temporal distance with the Roman period means it is unlikely that such aspects form a comfortable parallel with our own. Therefore as archaeologists there is a responsibility for us to fully explore the 'strange' aspects of the Roman town that diverge from the attributes of our own settlements. In doing so it is probable that we will gain a greater understanding of the reality of life in these places. Indeed, the strong familiarity that is often espoused between the Roman town and the modern town is more deeply related to the genesis of archaeological study, than the reality of the evidence.

1.4 The Hybrid Town

This thesis will make use of the term 'hybridity' to communicate the complexity of the towns under examination, based on the entanglement of local and incoming influences in their particular contexts. Use of 'hybridity' is meant to challenge ideas of simple cultural reproduction of a well-understood Roman identity being the primary reason for urban development in this period. Moreover, it also opposes ideas of linear continuity from previous Iron Age influences. Instead it represents the notion, as introduced above, that the experience and perception of Roman towns (and the features within) was likely to have been the product of an amalgam of different associations and motivations that cannot be explained from a generalised perspective.

Therefore there is no ambition for this thesis to show a uniform hybridising process. Instead the expectation of this research is that different blends of hybridity are likely to have characterised different settlements based on the agency of the individuals contributing to their development. The similar history of some towns may lend itself to comparison but with subtle nuanced differences still likely to be apparent. It is hoped that the use of hybridity can help us envisage urban change in the Roman period in a more realistic fashion; as a product of context rather than a means to show sweeping historical dialogues, which in the past have been influenced by modern bias.

This effort to avoid forcing the discussion of Roman towns into a macro process is a reason why 'hybridity' has been chosen as a way to describe change in this work, as opposed

other theoretical terminology being utilised in Roman archaeology at this time. It has been suggested, for instance, that creolisation is fundamentally similar to the study of hybridity (Burke, 2009). Theoretically this is quite true; both are describing dynamic mixing of different cultural associations to create a different output. It has also been used effectively by other authors to describe archaeological evidence of this period (e.g. Webster, 2001; Carr, 2007). Yet there are some fundamental drawbacks to dialogues on creolisation. In terms of this study, a major problem is the lack of linguistic flexibility derived from the term's modern usage. Talking of a 'hybrid' or 'hybridity' is devoid of distinct modern association. By way of comparison, the equivalent 'Creole' is intrinsically linked to cultural mixing processes throughout modernity. This can be unhelpful due to issues of projection, whereby we attribute similar values or motives to supposed 'Creole' cultures of the past. To avoid this, one is forced into over-using the extended form - 'creolisation'. In addition, it could be suggested that use of the term creolisation in the Roman period emphasises the influence of the provincial periphery on a defined Roman identity, favouring native influence rather than acknowledging the adaptability of both incoming and local beliefs. As such, one emphasises an overriding process that might be seen as equitable to outdated — but influential — discussions of Romanisation that are increasingly rejected in the theoretical approach to Roman archaeology today.

In recent years, there has also been a move towards utilising the term 'globalisation' in archaeological interpretation of the Roman world (Witcher, 2000; Hingley, 2005). This has followed a wider trend in the social sciences of abandoning colonial terminology. Writers, such as Richard Hingley (2005), have championed this as an essential part of a movement away from the simple dichotomies of 'native' and 'Roman'; labels that tend to create repetitious 'Romanising' debates even when the intention is to be inclusive. The reality of an increasingly connected world, witnessed in the Iron Age of temperate Europe, can help underpin a process of widespread cultural and social alignment. In this interpretation, the changes of the Roman era become more a product of an incremental sense of connectedness, rather than a conscious adaption (either elective or enforced) of a distinct 'Roman' identity. There is plenty to commend in this theoretical approach. Foremost it allows us to move away from the over-simplistic ideas of Romanisation. It also endorses an appealing sense of human endeavour and contact, something that is undermined when one thinks in monolithic terms of 'Romans' and 'natives'.

However, there are problems in wholeheartedly embracing these ideas as fundamental tenants of our approach to the period. One of the primary critiques to globalisation is the fact that it is another universal theory, which seeks to explain cultural change on a mass scale. The extent to which this type of analysis is a realistic expectation of people in the past is debatable. More crucially for this thesis, it also creates another, somewhat unhelpful, parallel to our own modern world. Globalisation is a term used today to describe the world's increasing cultural alignment, through advanced forms of connectivity. Therefore, the term comes laden with parallels to modern civilisation. It will be explored below how such parallels are particularly unhelpful in regards to the subject of water, meaning use of the term globalisation would be counter-productive in the case of this thesis.

While creolisation and globalisation have not been chosen as terms to utilise in this research their increasing usage in the discussion of Roman evidence shows a growing awareness of the complexity of perception and experience in this period. That notwithstanding, it is argued in this thesis that, even today, the influence of Romanisation remains a noticeable part of how archaeologists interpret and evaluate Roman towns in Britain and the core features within these settlements. Below it will be outlined how such theoretical perspectives have become ingrained within this subject area and the interpretive problems this creates.

1.5 The Imperial Genesis

To assess the extent to which a consideration of hybridity offers value to archaeologists, it is important to acknowledge the extent to which our approach to the Roman town has been based on an assumed familiarity with the period that was nurtured in the early twentieth century. As a vast and enduring Empire, Rome is pre-eminent in the annals of Western history. Its geographical coverage meant that many European powers of the modern age were, at one point, within its sphere of influence. The direct impact of the Empire upon these territories has resulted in a constant reference to Rome within their dialogues of national growth. At times this has been negative, perhaps best seen in France (King, 2001) with its revolutionary spirit post 1789; but also overwhelmingly positive in the embracing of notions of Rome in watershed moments of European Imperialism in the nineteenth and

twentieth century. Naturally, Italy has always had a strong link with its past,[1] but ideas of identification with 'Rome' were particularly strong during the Fascist period. Mussolini cultivated a sense of continuation from the ancient past that expressed itself vividly within town planning (Laurence, 1994a; Terrenato, 2001). However, to this day, the unlikely rise of Britain to world superpower debatably provides the closest parallel to Rome's similar ascension from its humble roots as a small city state. It is unsurprising then, with such comparison, that Britain (at its imperial zenith) also adopted a very positive view towards the Roman Empire and its achievements.

A fundamental part of this relationship was the education of Britain's imperial elite. They were exposed to ancient culture from a young age, with classical literature being a main focus of the public school education system (Vance, 1997; Stray, 1998; Hingley, 2000). Furthermore, the 'Grand Tour' had been a tradition within the British aristocracy throughout the seventeenth and eighteenth centuries. While initially this may have produced just an artistic affinity, rather than political agreement, it would soon lay the foundation for a more comprehensive identification with the Roman Empire. Once British influence had spread across the world and laid claim to India (making Victoria an Empress in the process) there was a definite change in attitude (Hingley, 2001, p. 27). Part of this inevitably came from a justification of the aggressive colonial policy that had been adopted. The morally dubious actions that are part of Imperial expansion could be portrayed as 'progress' by using the Roman example. There was an effort to cultivate a structured sense of order on similar terms to that of Rome in the High Imperial period; the *Pax Britannica* was the successor to the *Pax Romana* (Hingley, 2005, p. 21). Essentially, Britain envisioned itself bequeathing civilisation to its conquered territories, reciprocating the 'gift' Rome had made to Western Europe in antiquity (Hingley, 2005, p. 27).

This teleological conception of history made it possible to place 'civilising' aims at the heart of the aggressive Imperialism undertaken in places like India. Indeed, the feelings of proximity to the Roman period were even felt in popular literature of the time. Hingley has highlighted Rudyard Kipling as a key exponent of this sentiment, spreading the message to a new generation. In the collection of short stories entitled *Puck of Pooks Hill* (1906) we have direct crossovers between the Roman Period and Victorian England. Within this

[1] Terrenato (2001) took a survey of school children which seemed to imply the same affinity for the 'Romans' in the present.

collection the story entitled *A Centurion of the Thirtieth* starts with a child pretending to be a Roman soldier in the woods, only to fire her handheld catapult and be confronted with an actual centurion. The tone is light hearted, but the centurion comes across as civilised and similar in his experience to the modern man. Much is made of the similarity in geography, in terms of the location of particular places in the past and present. Furthermore, the emphasis is upon this soldier, despite being 'Roman', actually being a native of Britain; thus showing firsthand the passing on of 'civilisation'. Some may suggest that Kipling is outlining a degree of entanglement that questions definitive identities. However, as with his poem The Roman Centurion's Song (1911), the mixing of identity is between the Roman and Kipling's contemporary Britain. The historical denizens of the island are in fact depicted as "native troops to drill", so just beginning their quest to embrace Roman identity and eventually forge the Empire of Kipling's age.

This general cultural medium is vital to note because it was at this time that archaeology was starting to emerge as a discipline. In Britain, there are probably few archaeologists who have been as influential as Francis Haverfield, the late Victorian/Edwardian scholar and Camden Professor at Oxford. Haverfield's work picked up heavily upon the issues of colonial thought that have been mentioned above. While Theodor Mommsen (1885) may have invented the idea (albeit in another context), Haverfield crystallised the concept of Romanisation in his publication of 1912, *The Romanization of Britain*. It is certainly no exaggeration to label this as one of the most influential contributions in the study of Roman Britain, and maybe the Western Roman provinces in general. In the short term, 'Romanisation' provided a description of a conversion process that represented an ideal outcome for colonial occupation. It had huge relevance at the time of writing, with many scholars comparing the situation in India with the Roman provinces (Cromer, 1910; Lucas, 1912; Bryce, 1914).

As a concept, Romanisation endorses a teleological progression from native barbarian to civilised Roman. In this sense, it is a theory which has functioned well in our compartmentalisation of history; it explains the transition from Iron Age to Roman. Furthermore, it is a process that can seemingly be explained from an archaeological perspective, through the rapid adoption of Roman style material culture and the appearance of distinct building types. Indeed, the latter are often depicted as the hallmarks of this supposed cultural revolution. Mattingly (2006, p. 376) summarises this approach with the

dry observation that surely everyone would want to live in a villa instead of a roundhouse? This may be oversimplifying the thought process of past theory, but essentially it illustrates the leap of faith we are meant to take on the part of the Romanising phenomenon. Indeed, Haverfield underlined the simplicity of the divide by proclaiming that the use of the square and straight line was a key attribute which separated a civilised man from barbarity (Haverfield, 1913, p. 14).[2] As a result there is probably no area of Roman studies so exposed to this theoretical stance than the Roman town itself. For most of the last century our understanding of these settlements has been cradled in this type of caricature, with central amenities forming a particular focus. So buildings like bathhouses are seen as instant markers of a 'Romanising' population that were striving towards a (modern?) civilised ideal. This is acutely expressed in the definition archaeologists have given to the Roman town, identifying it as a place that provided administration, trade, amusement and protection (Wacher, 1995, p. 257), a list that falls easily within the definition of a modern town.

In line with this approach, an economic view of the Roman settlement has been reinforced over the last century with seminal contributions from a number of writers. Rostovtzeff (1926), for example, directly associated the ancient town with the modern economic centre. Even the work of Weber (1958; 1978), Finley (1973) and Jones (1974), which rejected this strict adherence to modern economic models, was based on the primacy of a 'consumer city' (Kaiser, 2000). According to these accounts, the purpose of the town was to organise and exploit the countryside for economic gain. So while there may have been a move away from strict modern economic principles (particularly by Finley), there was still a motive to define Roman towns in primarily economic terms. While to some extent this was surely true, it still gave a somewhat one dimensional meaning to these settlements (Rogers, 2008, p. 53). Also, such weighty contributions were often based upon the copious evidence of the Mediterranean heartland, rather than the provincial extremes such as Britain, which probably led to more acute generalisation in work on the northern provinces.

Instead of explaining the reasons for variability or similarity there was an effort to force these models onto provincial archaeology. So instead of exploring differences, simple

[2] Laurence (1994a) notes how this outlook was influenced by contemporary bias; Haverfield seems to be attacking the German planning trend which, at the time, had embraced the 'curve' as a key concept.

functions were seen to be indicated by—but not limited to—particular structures; so the *forum* provided administration; the theatres and bathhouses were sources of entertainment; the markets and shops were evidence of trade; plus the city walls provided protection. As Kaiser (2000, p. 6) notes, this change in thought meant that a settlement could still be deemed a 'Roman' town despite lacking the traditional markers; so for example the absence of a Curia did not necessarily mean there was no city council. As such it meant we could generalise sites, despite certain incongruities in the archaeological record. In effect this was more of a proving exercise, to illustrate sufficient 'Romanisation' to be relevant in the overall theoretical dialogue.

However, the real effect of this was that archaeologists started to produce studies that could imprint large system thinking upon Roman towns in Britain, creating a scientific logic to the establishment of all settlements. There is no doubt that post-war economic theory reinforced a positive approach to Roman studies in Italy. Indeed, Terrenato (2001, p. 80) notes how the framework laid down by Mussolini (proclaiming the primacy of Rome in Western Culture) was still utilised, but with aspects of ancient Italian economic power replacing the spiritual inheritance. In Britain, without the same wealth of archaeological resources, such theories were taken to their systematic extreme. Hassall and Hodder (1971) are a prime example of this approach, creating a pseudo-scientific system that visually represented Roman towns, and their territories, in a form more akin to the illustration of cellular structure in biology, with towns seen as performing a role in a local milieu while being a standardised element in a wider whole. This Processualist perspective echoed the impact of Functionalism in other academic disciplines at this time. The aim was to show the economic distribution and precision that characterised the siting of these towns within *civitas* resource zones. In this regard, the economic rationale further consummated the familiarity of the Roman town, by firmly anchoring its creation and purpose in modern theoretical systems. No doubt the Roman Empire and its various settlements possessed strong economic and administrative links, but to make such a bold declaration of primary purpose underlined a prevailing one-dimensional view in our perception of the past. This is especially relevant considering the genesis of economic theory itself, forged as a companion — or reaction to — the capitalist systems of modernity. There is naturally a disagreement about whether one can simply apply such theory to a non-capitalist society of the past (Morley, 2004, p. 34). Indeed, while these studies may have seemed like a radical

departure from previous dialogues of urban growth, they actually only served to maintain the status quo of modern projection when interpreting the evidence of the Roman period, further distancing us from the actual experience of people in the past.

So, in many ways, the momentum of archaeology's growth and evolution has helped to solidify a certain perception of the Roman Empire. This is particularly marked in Britain thanks to the dual aspects of our own immediate Imperial legacy plus the quest for relevance and respect for the discipline as a whole. The colonial discourse of the early twentieth century forged a false familiarity with the Roman world based on a justification of the contemporary expansive and exploitative policy of Imperial nations such as Britain. Out of this cultural medium the theory of Romanisation was formed; unsurprisingly this approach endorsed a civilising mission as part of Roman provincial policy, mirroring the contemporary situation in India (and elsewhere). As a result Roman settlement was rationalised from a modern point of view, whereby it was equated to our notion of civilised town life. Despite the dissolution of the European Empires, as the last century progressed, the foundations of this cultural proximity were already deeply entrenched within our society and academia itself. As such the ideals of Processual archaeology merely furthered a familiarity between the Roman town and its modern equivalent. Our Western civilisation has been defined by its urban amenities and therefore, following the above logic, the Roman town must have had similar attributes. With this modern point of view, anything potentially unusual or divisive to the pattern has been labelled as 'native' or rationalised to fit the overall picture.

1.6 Dialogues of Transformation

One of the strongest contributions to the general study of 'Romanisation' was made by Martin Millett (1990); in many ways a sign of the times, he emphasised the role of native agency within the realms of provincial life. Thus the changing values of the native elite were seen as the pivotal catalyst by which they progressively embraced Roman symbolism and material culture, which had a filter down effect on the 'lower echelons' of society. However, while this was undoubtedly a step in the right direction, Millett continued to instil a sense of 'progression' within his account; this is particularly exposed in his analysis of the creation of Roman towns which are explained as a product of the native elite's desire

to embrace a "Roman style of life" (Millett, 1990, p. 74). So despite native agency, the establishment of the town still remains the end product of a civilising process, whereby the conversion is finally realised in material form. So while the processes leading up to creation may be more inclusive and holistic, the actual function and meaning of the Roman town remained unchanged with this analysis.

Some more recent contributions, similar in scale, are those of Mattingly (2006) and Creighton (2006) who, despite being published in the same year, take somewhat contrasting views on life in Britain during the Roman era. The former provides a distinctly anti-colonial message that effectively challenges the conception of the Roman Empire as a 'soft touch' (Willis, 2008). Indeed, the motive here is to present Britain as an exploited province on the periphery. As such, it presents an argument centred on the role of the Roman military and the heavy hand of the Imperial administration. This marked theoretical swing, away from a familiar and positive image of the Roman era in Britain, shows a distinct growth in our own approach to the period. Yet, by concentrating on the 'iron fist' of the Roman military one still finds the argument of Roman towns being centred on economics and supply routes (Mattingly, 2006, p. 265). Furthermore, there is a danger that strong post-colonial discourse can distract us from areas of social and cultural entanglement. As a result, Mattingly's Roman towns still possess a defined feature set that was primarily indicative of an incoming Roman identity, rather than a more subtle negotiation of beliefs and associations.

By way of contrast, John Creighton's *Britannia* gives a more in-depth view of the role that the native elite played in the creation of what we identify as Roman Britain (Willis, 2008). In many ways this feels like a logical progression from the aforementioned work of Millett, which crucially advances the way we perceive the native elite moving into the Roman period. As in the previous section, Creighton acknowledges the inherent conservatism that has been prevalent within the discipline back to Haverfield. His intention is to offer a new approach that embraces a view of cultural proximity between the 'native' and 'Roman'. Indeed, this book is acknowledged as a type of successor to Creighton's previous work *Coins and Power in Late Iron Age Britain* (Creighton, 2000), and thus continues to provide material evidence for an active adoption of Roman imagery to further a legitimising goal. Yet in *Britannia* Creighton does not necessarily make a sustained effort to challenge the familiar definitions of core 'Roman' urban features (e.g. the forum) within

his case studies of a number of British towns; despite the proposal that local associations and practices could have influenced many central areas of these settlements. To an extent one might question whether issues of continuity are being prioritised as indicators of local influence in Creighton's towns, rather than exploring how the purpose of incoming structural forms may have been greatly affected by factors in their immediate context. This perspective might be said to therefore underplay the cultural entanglement present in the Roman town in Britain.

Despite the limitations noted above, both of these contributions, in their own way, break some of the established theoretical assumptions that have been documented above. However, such innovation is still not necessarily the norm in the subject area. The Wilson (2003) edited volume entitled *The Archaeology of Roman towns*, for example, was composed in honour of John Wacher and follows rather traditional lines of interpretation. Clearly the format of this collection, as a tribute to Wacher, does not necessarily invite radicalism. As such it is no surprise that there is very little here that truly innovates away from our traditional perceptions. Indeed, the Roman town is very much portrayed as the familiar construct Wacher outlined in the 1970s. The fact that four contributions in the Wilson volume are purely considering town walls (Crummy, 2003; Esmonde-Cleary, 2003; Magilton, 2003; Manning, 2003) is a direct reference to those 'functions' outlined earlier. It also reflects the preoccupations of an era during the later twentieth century when the 'problems' engaged with by Roman scholars and archaeologists were matters of matching stratigraphic sequences with historical chronology, rather than wider matters of cultural expression and social dynamics.

1.7 The Modern Medium

Historiographical works on the development of archaeology, and outside influences to our approach (e.g. embracing inter-disciplinary perspectives), are becoming increasingly popular. As evidenced above, we can see how a significant motive behind some of the Imperial comparison between Britain and Rome (by archaeologists such as Haverfield) would have been a product of justifying the subject to a wider audience. Haverfield was writing in a transitory era where archaeology was beginning to change from an amateur hobby to a professional discipline; the pressure he faced was one of justifying the subject's worth in the face of traditional viewpoints. However, while archaeology has clearly grown

and evolved to become a prominent and well known occupation it is still plagued by such a popular identity crisis. There still remains a sense that archaeology has to make itself directly relevant to a wider audience. In part this is due to the fact that, unlike other humanities or social science subjects, archaeology relies heavily on the cooperation of the wider community. This is apparent on an obvious level of gaining permission to undertake archaeological fieldwork, but also is required to actually fund such endeavours. In fact, the evolving external pressures on archaeology are numerous enough to demand a separate study altogether. However, what must be acknowledged is that sometimes this pressure to justify archaeological work in a wider forum can affect the way we interpret the evidence. It is proposed here that the familiarity of the Roman town, so prominent in popular discourse, is propagated by such pressure. Put simply, it is far easier to sell similarity and unchallenging narratives.

In fact, the continued prominence given to dialogues of familiarity has made it increasingly more unlikely for innovation to prosper. This is especially the case with the study of Roman Britain where the names Haverfield (1912), Collingwood (1923), Wacher (1975), Rivet (1958), Frere (1967), Salway (1981) and Millett (1990) loom large in the discourse. With such strength of reputation behind the topic, it is easy to assume that there are few remaining avenues for original research. Indeed, it could be argued that the overexposure of Roman urban studies has actually hindered the potential for new perspectives. The next section outlines the difference that is noticeable in the study of prehistory. There are many reasons for this trend, but one cannot help but suggest the possibility of a 'brain-drain' away from areas of Roman studies, which had by the late twentieth century been conceived as stale or fully understood (Mann, 1996) and lacked any representation at innovative archaeological conferences such as TAG (the annual Theoretical Archaeological Group).

1.8 Contrasting Innovation

The traditions of prehistory, and the approach of those who have written about them in recent years, form a core inspiration for this thesis. On a theoretical level, the contributions of authors such as Bradley (1990; 1998; 2000; 2007), J.D. Hill (1989, 1995a), Thomas (1996; 1999), Parker-Pearson (1999), Willis (2007a; 2007b) span a diverse set of time periods, but share a respect for the unfamiliar within archaeology. Indeed, Bradley (2007)

explicitly outlines an approach which he calls “making strange”, whereby we acknowledge the more alien aspects of life in the past, instead of actively searching for similarity. This is an idea which has been present within the study of prehistory for some time and perhaps echoes the concern both Hill (1989) and Thomas (1991) have expressed about the imposition of the economic ‘familiar’ onto their respective areas of study (the Iron Age and the Neolithic). The theoretical direction that such contributions have pursued suggests a deep contrast to the aforementioned views prevalent in studies of the Roman period.

As alluded to above, one reason for this contrast (albeit very hard to actually prove) could well be the generational allure of the innovative writers working on prehistory. The more people you inspire, the more creative individuals will be attracted to the subject area. Of course, many Romanists would argue that the archaeology of prehistory naturally lends itself to novel interpretations. The lack of written sources and comparatively sparse material remains leave much to the interpretation of the archaeologists as they ponder the role of monuments and burials in the ancient landscape. Indeed, many would probably comply with Ucko and Layton (1999, p. 12), who postulate how the archaeology of prehistory can present a series of “empty signs” filled with “surrogate discourse”. Despite this, it seems that the critically reflective study of landscape emerging through the past twenty-five years is an area of genuine innovation within prehistory and the difference in approach exposes the limitations of the direction pursued by Roman archaeologists until recently. The general trend in the study of the Roman landscape has been to envisage it in economic terms; this is particularly notable in the treatment of the countryside (Rogers, 2008, p. 61). Indeed, Rogers rightly points out prominent studies of villa landscapes (e.g. Applebaum, 1975; Branigan, 1977; Todd, 1988) are notably guilty of defining the natural world in terms of ownership or occupation. In other words, landscape studies by Romanists have generally followed the simple theoretical direction outlined above, embracing a notion of the land as surface to be occupied and harnessed for economic gain (Ingold, 2000, p. 151).

By contrast, writers working on prehistory have polarised more towards the idea of a ‘lived landscape’ (Thomas, 2001), whereby the aim is to seek to understand the experience of individuals and groups in direct reference to their immediate surroundings. Thus to truly interpret the meaning of a built environment, one has to set it within a landscape full of meaning. This is what Tilley (1994) called the “phenomenology of landscape”, a process

that requires an encounter between the archaeologist and the places they wish to study (Thomas, 2001). In light of this, many archaeologists have considered the role of prehistoric monuments; some have seen the potential for them to be almost microcosms of their surrounding environment incorporating the resources of the surrounding landscape (Bradley, 1998). As such these built structures become foci of the natural world, rather than an example of exploitation or imposition (Bradley, 2000).

Such studies have anchored the interpretation of prehistoric life into complex issues of agency and individual context that relate well to the attributes of hybridity outlined earlier in this chapter. The above reference to Bradley's exploration of entanglement between the natural world and man-made structures is a case in point; the resulting monuments are not an expression of purely natural or man-made importance but something of an amalgam between the two – a hybrid. The arguments of Hill (1989) and Thomas (1991), similarly, do not reject economic arguments but propose other important considerations that would have existed alongside such imperatives; the acknowledgement that certain features can be both ritually important while serving practical/economic purposes is again a somewhat hybrid interpretation. The more defined and conservative approach to the Roman period avoided, until just recently, interrogating evidence in this more rounded fashion.

1.9 Hybrid Waterscapes

This contrasting approach to Roman period evidence is not fully explained by the additional literature sources and more copious archaeological record of the era. It is proposed in this thesis that such disparity is actually largely a product of a lingering influence of the traditional approaches outlined above, the limitations of which can be thoroughly exposed by analysis of a constant aspect of human settlement – water. Below it will be discussed how the interpretation of water in a prehistoric (particularly Iron Age) setting differs greatly from how it is portrayed in the Roman period. Such consensus on 'Roman water' is not necessarily accurate even in the core Mediterranean setting of Rome itself, so seems unlikely to be an accurate portrayal of provincial attitudes. In fact, a degree of similarity between British Iron Age associations with water and those expressed in a Mediterranean setting would appear to provide an ideal tool to illustrate the potential hybridity of Romano British towns. So not only can research into water highlight the

limitations of past studies into urban settings, but crucially it can also support the concept of hybridity outlined at the beginning of this chapter.

1.9.1 Academic Perspectives on Water in British Prehistory

The acknowledgement of a special role for water in prehistoric temperate European society has been a long-held consensus among scholars. This is primarily due to the frequent deposits of material culture found in direct association with springs, rivers, lakes, marshes and islands (Fitzpatrick, 1984; Green, 1986; Bradley, 1990; Webster, 1995; Willis, 1999; Hingley, 2006; Yates & Bradley, 2010). Such activity is characteristic of sites from the Bronze Age through to the Late Iron Age. As the appearance of items in the archaeological record at these points can often not be satisfactorily explained in a purely practical sense, archaeologists have looked to symbolism and ritual as key aspects that help explain the relationship people had to these places. The fundamental link between water and strange 'non-practical' behaviour is so entrenched within the interpretative framework of prehistorians that even some thirty years ago Fitzpatrick (1984, p. 179) described it as "unsurprising". Moreover, this tradition of significance is not isolated to Britain. In fact, it is largely agreed that, throughout prehistory, people all over temperate Europe seemed to share a similar attitude in respect to the special nature of watery landscapes (Törbrugge, 1970; Bradley, 1990; Coles, 2001; Larsson, 2001). The breadth of this activity is shown by the fact that it has become a supporting pillar in the idea of a pan "Celtic" identity within the Iron Age (Green, 1986), even if this term reflects a rather simplistic generalisation of societies of the time.

However, while it is fair to say that water remained meaning-laden throughout this period from the Bronze Age to the Late Iron Age, the specific ways that people acknowledged its power did vary over time. This is to be expected as communication and engagement with the supernatural, even in a more structured and monotheistic religion such as Christianity, have been characterised by a great deal of variability throughout history. The deposit of weaponry into watery contexts is perhaps the most discussed sign of the importance for such locations in prehistory and it predominates in the Bronze Age evidence (Bradley, 1990 Chapter 3). As Fitzpatrick (1984, p. 179) remarked the frequency and richness of such deposits meant that they became the beginning and end of the

discussion into the significance of these areas. Unfortunately this created a set of circumstances whereby archaeologists projected continuity between the Bronze Age and Iron Age and did not fully explore the ways in which interaction with water was changing. Sites such as La Tène with its rich metalwork (particularly weaponry) finds in watery contexts seemed to echo similar values pertaining to these locales as in the Bronze Age, albeit with the type of metal changing. Yet, as Bradley (1990) remarked this obscured a number of ways in which the evidence of the Late Iron Age differed from earlier periods.

Even at La Tène there was a breadth of items recovered that were not just weaponry, with coins and currency bars two of the more prominent new find types. Bradley (1990, p. 173) notes how these inclusions are also reflected in other watery contexts, even in Britain, during the Late Iron Age. There is also the fact that food related items were increasingly becoming involved in ritual during the Late Iron Age, perhaps to signify elements of fertility and prosperity. Fitzpatrick (1984, p. 179) mentions how such organic votive deposits were unlikely to have been recovered from these watery contexts and yet could have played an increasingly prominent role during this period. His analysis of La Tène era finds from the River Thames also uncovered the possible votive deposition of items like bronze cauldrons, tankards, bowls and wood sculptures (Fitzpatrick, 1984 p. 166). This increased diversity of find types away from just weaponry could well reflect an increasing interaction with water for more varied ritual and symbolic reasons. The possibility of food being used for votive offerings also implies a degree of ephemeral activity that is difficult to assess from an archaeological point of view.

Another development highlighted by Bradley (1990) was the increasing structural interaction with these waterscapes in the Iron Age. In previous eras there is much evidence suggesting a link between water and burial. In locations as diverse as Orkney (Scotland) and Scania (Sweden) clear links have been made between burial mounds and their surrounding waterscapes (e.g. Bradley, 2000; Phillips, 2004). In Britain there are a number of examples of Bronze Age burial activity close to rivers; the Thames, Witham, Tas and Yare will all be mentioned in subsequent chapters in this regard. This connection may also be substantiated by the apparent similarity in the deposits found within burial context and those found in watery contexts (Bradley, 1990 p. 103).

With the diversification of items found in water during the Iron Age also comes a development in the type of features regularly associated with these areas. The

aforementioned site at La Tène is a prime example of this with the majority of votive deposits being found between two large timber bridge/platform features. The impact of such structures will be assessed in more detail in the next chapter (see sections 2.1 and 2.2), but they are certainly not isolated instances and similar examples can be found in Britain as at Fiskerton (Field and Parker Pearson, 2003). The Fen area of East Anglia has precedent for similar features in the late Bronze Age, but even at sites like Flag Fen there is Iron Age activity (Pryor, 1992).

The Late Iron Age also witnesses emergence of shrine features that coincided with liminal watery areas in the landscape (Bradley, 1990 p. 175; Webster, 1995). Some of these were more defined ritual enclosures, such as the Viereckschanzen, which contained deep shafts with ritual offerings. The depth of these shafts could also have been a direct link to underground water or at least could have contained rainfall. In fact, as Fitzpatrick (1984, p. 182) notes, the frequency of shrines could have been underplayed as they would not always be easily detectable from an archaeological point of view. Other monumental interactions increasingly associated with waterscapes in this period are pit-alignments and earthworks, which present us with further evidence of significant communal structural engagement with water that is not purely practical in nature. Both feature types may have been involved in defining land organisation between communities, but their relationship with water may also hold key symbolic and ritual messages that underpinned such practical functions.

While votive deposition of objects still forms a key part of the activity related to these waterscapes, the increased prevalence of built structures also provides us with a sign of interaction that does not necessarily need a particular deposit to make it profound and important; they could have facilitated strong ritual and symbolic statements as such tell-tale archaeological markers. In many ways these developments represent an increased hybridity in the waterscapes of Britain by the Late Iron Age.

Instead of being locations more representative of another world, or portals to such worlds, and in a sense marginal in previous eras, they increasingly became a mixing of ‘man-made’, ‘natural’, practical, symbolic and ritual aspects that formed an integral part of the life of local communities. It is perhaps tempting to suggest increased human engagement leads to some sort of normalisation or rationalisation that would erode the special nature of these places. However, there has been an emphasis on deciphering the

symbolic impact of these structural developments of the landscape/waterscape, exploring how they could be manipulating and respecting sources of power and how this affects our view on the wider society of this period (e.g. Tilley, 1994; Evans, 1997; Bryant, 2007; Rylatt and Bevan, 2007).

With this prevailing view of prehistoric waterscapes in mind, there are a number of points that need to be raised. Most obvious of these is the fact that the relationship that people had with water during this pre-Roman period would appear to be considerably different from our own. The character of these differences will be explored in more detail below, but it suffices to note here that these practices would be 'strange' in our own modern urban context. In addition, we have evidence for these practices encompassing a chronological timeframe much longer than the subsequent Roman period. By the Late Iron Age the specifics of interaction with water may have changed, but the importance of this relationship was apparently undiminished and still not easily understood from a modern perspective. Indeed, if anything, the development of more variable practice and structural interactions has created a situation where archaeologists have had to more thoroughly examine local contexts from different perspectives to understand what was happening in the past.

1.9.2. Academic Perspectives on Water in the Roman Period

The consequence of embracing this tradition, in both its scholarly direction and its tangible archaeological results, creates a troubling situation in respect to subsequent Roman settlement. The traditional response of Romanists has been to "deal with Iron age problems in purely Iron Age terms" (Rivet, 1958, p. 75) and interpret the Roman period as clearly distinct. Such compartmentalised views have undoubtedly had an effect on how archaeologists have interpreted evidence. In the last ten to fifteen years, for example, there has been a call for the exploration of potential continuities from the Late Pre Roman Iron Age into the subsequent period (Creighton, 2001; Millett, 2001); unusual votive deposition of prehistory has naturally been an area of focus in this regard. Indeed, Fulford's work (2001) in Silchester has highlighted the undeniable pattern of unusual foundation deposits beneath many of the Roman buildings. In addition to this, the work of Merrifield (1987; Merrifield & Hall, 2008) has also noted the potentially important pre-Roman religious

activity in London. Yet, in some ways, this still results in the archaeologist isolating the Iron Age in its own terms. A concentration on votive deposition and dialogues of direct continuity from a previous era mirrors the concerns Fitzpatrick (1984) voiced thirty years ago in relation to water traditions of the Bronze Age and Iron Age. As the changing practices of the Late Iron Age suggest, seeking continuity is likely to only present one with a limited perspective on the evidence.

In this regard, it is important to note that some of the most lauded and celebrated aspects of the Roman town are intimately involved in the management of water; the baths, aqueducts, sewers, wells and bridges are all fundamental parts of that image of everyday life in the Roman period. However, if anything, these elements are held as the diametric opposite of any Iron Age activity, even if they were dealing with the same medium, in the same landscapes. When Wacher (1975; 1995), for instance, uses the word "water" it is almost exclusively as a practical resource that is required to supply the buildings of the town or a tactical advantage. The water structures of his towns are a civilised aspect of a distinct incoming 'Roman' organisation of urban space. Moreover, the subsequent twenty years since the second edition of Wacher's widely read work have not been witness to a radical change in this presentation. The vast majority of excavation reports dealing with urban water features of the Roman period stick to an accepted notion of function that rarely considers the previous associations with this medium in the immediate landscape. The recent discussion of the Winchester aqueduct has a complete absence of information on the function/reason for the feature beyond generic issues of practical supply (Biddulph, 2011a; 2011b). This is despite the fact that it supplied an area that would later be satisfactorily provided for via well water and that the conduit appeared to be aligned to key aspects of the Iron Age occupation of the site. Similar sentiments could be expressed about the work analysing the Dorchester aqueduct (e.g. Putnam, 1997). Examples of bridges (e.g. Brigham, 2001b), wells (e.g. Blair, 2002) and bathhouses (e.g. White, 1999) presented in similarly familiar fashion will be explored throughout this thesis.

This outlook is so ingrained that it is even found in recent scholarly contributions that have consciously looked to avoid traditional discourse. As mentioned previously, Mattingly (2006) has advanced a view of Roman Britain that actively rejects issues of Romanisation. Yet, his presentation of aqueducts and bathhouses as "amenities" representative of an overall identity package of Roman urbanism (Mattingly, p. 280) is

unnervingly similar to Wacher's 1975 account. Indeed, baths are portrayed as "common place" with any differences merely "exceptions" to a general rule (Mattingly, 2006 p. 283). Aqueducts are defined by their role as part of an organised civic service (presumably including wells and sewers) that is a "good index of the relative success of urbanism" (Mattingly, 2006 p. 284). The few mentions of bridges are predictably as part of the Roman road network and military supply routes (Mattingly, 2006 p. 366).

The disparity between this widely replicated treatment of water in the Roman period and its agreed significance in the Iron Age is readily apparent. The development of these structural interactions with water appears to nullify any meaning for the Roman archaeologist, despite the fact that its importance was undiminished through comparable changes in the Late Iron Age. This perspective is made even more puzzling by the acknowledgement that many of the Roman towns in Britain are directly informed by Iron Age previous settlements and show signs of acknowledging previous ritual and symbolic concerns (Willis, 2007a; 2007b). Rogers (2008, p. 73) also rightly emphasises a pattern of association with water; out of the twenty one main Romano-British towns analysed twenty of them were found to be in close proximity to watery features. The majority of these settlements were built in the floodplains of nearby rivers, in areas that were often marshy and thus impractical from a modern point of view. Unfortunately a consideration of the potential symbolic and ritual resonance one could derive from interacting with these contexts has largely been ignored in favour of the implementation of a very different generalised Roman relationship to water.

1.10 Problematic Parallels

The suggestion made here is that these strongly contrasting approaches to water before and after the Roman conquest are more likely to be a symptom of lingering tendencies to equate the Roman town with a modern settlement, rather than a logical view of the evidence. This is a very dangerous assumption to make in respect to nature (and water in particular) because our relationship to it is particularly extreme in the modern West. Moreover, writers such has John Urry have identified the fact that throughout history the perception of nature has been far from consistent. In reality, there have been many different "contested natures" (Urry, 1998). It is debated that we are in fact moving into a

new relationship with nature ourselves, characterised by an increasing awareness of our effect on the environment and its dwindling resources, thus changing the way we perceive our surroundings.

The relationship between nature and the modern town in the West, throughout much of the last century, is one of dominance. Obviously there are many different natural elements that are focused into our settlements, and sociologists have characterised these as environmental flows (Appadurai, 1986; Urry, 1998; Kaika, 2005). Water is paramount among these, and the careful management of its flow into the urban landscape fundamentally underpins modern (Western) life. There is more water running through our settlements than at any other point in history, yet somewhat paradoxically it is actually less visible. In Britain, despite regular rainfall throughout the year, only the most inclement weather will leave any long-lasting effect on the streets. Indeed, our water is, by in large, hidden beneath the ground, out of sight. This is a deliberate effort to make our life easier and more efficient. When we require water we merely turn the tap on and are provided with as much as required; when it rains we can usually be safe in the knowledge that a flood will not stop us in our daily routine.

However, the whole process goes far beyond just simply convenience or practicality. Modernity has seen the progressive detachment from the procurement of water from its origin in nature. This development has been alluded to by Kaika and Swyngedouw (2000), who see the role of water in the urban setting as following a Marxist evolution of 'fetishisation'. Indeed, they outline how we have become detached from the labour and social relations involved in the process of water procurement (Kaika and Swyngedouw, 2000; Kaika 2005); we do not know how it is transported, where it originates, or the processes to which it has been subjected. Modernity has silenced water, transforming it into a homogenous substance known as H_2O (Kaika and Swyngedouw, 2000). Therefore its meaning is often dictated by the building or room it appears within. In a domestic setting, for example, this might be why many people feel uncomfortable drinking water from the bathroom tap instead of the kitchen tap, despite often being very little difference in the quality of water.

Part of this change is undoubtedly due to scientific advances in the arena of health, which have deemed river water unhygienic for drinking, and indeed, interaction in general. In London, at the time of the Enlightenment, there was an awareness that the Thames had

become polluted and efforts were made to alleviate the situation (Ackroyd, 2008, p. 273). In the nineteenth century this movement was characterised by a number of notable rivers being forced underground, the Walbrook and the Fleet are prominent examples (Myers, 2011). As time has moved on, the water of cities and towns has become predominantly hidden by man. Indeed, Laurence (1994a) notes how the late Victorian and Edwardian view of the city targeted environmental conditions as the source of socially unacceptable behaviour, rather than poverty. As such, sterilising these influences would create a healthy and virile population. As a result of these attitudes rivers still may run through many settlements, but they are seen as a marginal influence, a casual ornamental feature, on urban life. Indeed, asking the general public about the main features of the town they live in will often not elicit any sort of mention of rivers or natural water features. In essence, the 'good' water of today is found within buildings, completely detached from its point of origin and natural meaning.

This particular view of water can be seen, most clearly, in the treatment of 'developing nations'. Many charitable organisations centre their campaigns on the issue of water supply in disadvantaged areas of the world, such as Africa. The advertisements often consist of shocking pictures of poverty, disease and famine. The root cause of this situation is invariably the natural water of the local community (often depicted with stark and visible impurities). The solution is the introduction of a water pump, through the generous donations of the Western audience. In essence, the introduction of the manufactured water—the 'good water'—is presented as the key factor in a movement towards prosperity. In rapid fashion we are shown scenes of regeneration, whereby the community in question is drastically changed for the better on all levels. The motives behind these campaigns are noble and there are some undeniable truths. However, it neatly illustrates the simplistic and uniform values which we have attributed to water.

The provision of water is a stepping stone to a productive and healthy settlement, not a panacea for all problems. Indeed, there are a number of complexities just in terms of regulating a new water supply, let alone solving more deep-rooted problems. Furthermore, the divide between 'natural' water and 'man-made' water is an artificial disparity; after all, the new pump is still being sourced from nature. The idea that this new water is something separate, bequeathed to the community through Western donation, does communicate a vague sense of 'colonial betterment'. Moreover we are often informed, for instance, that

the *simple* introduction of a well, or water pump, can solve the ills of an African community. While the aim of such a statement is to show how even small donations can help the cause, the implication is that the community itself cannot achieve this *simple* task.

After such reflection it is clear that our current relationship with water in Western Europe is essentially a product of modernity itself. Within this setting the flow of water into the urban arena is a hidden process that is given meaning by the ('man-made') space it enters. There is an intrinsic fear and insecurity present when this silence is broken. Indeed, because our relationship with nature is one characterised by dominance, any real display of nature's power produces a negative feeling within the modern urban dweller (Kaika, 2005, p. 65). A burst pipe within the house, for instance, creates a situation whereby one becomes brutally aware of the complexities and realities of the water-flow supplying the building. Also, a flash flood within a town reminds us of a precarious geographical position; a riverside view is often a positive element of a residence but the reality of being within the floodplain of a watercourse is often blissfully ignored. These dramatic events can temporarily shatter the silence of the urban space and create a feeling of unease. Kaika (2005) has labelled this feeling the 'urban uncanny'; in the context of water, this is when a temporary resonance of natural power alters the familiar sense of place. Yet, we have to understand that these are our own sentiments forged over the last couple of centuries. It does not necessarily follow that these attitudes would be a reliable perspective two thousand years ago.

In fact, the whole premise is based on the idea that nature is something that hinders human development and progress (Kaika & Swyngedouw, 2000, p. 126). Therefore, the uncanny display of nature's power creates insecurity in the success and durability of the modern city. However, the evidence shown above, regarding the Iron Age beliefs of temperate Europe, seems to suggest a respected and powerful nature. Furthermore, this is not shunned and opposed but actively courted on many different levels. In the modern example, dramatic events like floods momentarily make the water flows 'audible', and the meaning of the built environment is temporarily altered. The suggestion here is that in prehistory this awareness of the power of water was a constant state, and thus it is reasonable to postulate that such audible water flow was an integral part of life, rather than an exhibition of a temporary breakdown in how society functioned. Acknowledging

difference in our relationship with nature, and the inherent meaning water held, has consequences when interpreting the Roman town.

As shown above the interpretation of Roman period water features largely conforms to the 'silent' water of today. Baths, aqueducts, wells and bridges are seen as possessing generalised values in this period that are subsequently imposed on homogenous water. This is undeniably problematic in Britain where we have the interpretation of meaning-laden water in a prehistoric setting suddenly becoming devoid of such associations when being utilised for these Roman water structures. The enduring legacy of water beliefs in Britain throughout prehistory would suggest that such associations were unlikely to have disappeared within a matter of years. This is made even more likely by the fact that incoming 'Roman' water beliefs had far more in common with the contemporary views in temperate Europe than our own twenty-first century values.

1.11 Roman Water

Rivers and springs are the main source of water flow in the Roman town; therefore, assessing their treatment in the classical context is vital.[3] The city of Rome remains closely connected to the flow of the river Tiber. Its characteristic twists and turns frame some of the most important ancient sites, such as the *Campus Martius* and the *Forum Romanum*. While we are accustomed to picturing Rome on seven hills, the important administrative/religious centre of the city was deep within the thralls of the Tiber's floodplain. The powerful nature of the river would have meant that regular flooding was a near certainty in the *Forum*; something which still causes problems to this day (Ammerman, 1990, p. 637). As a result of such placement, perception of these great monuments would have been inextricably linked to the Tiber itself; more than just a feature, it was an entity that gave definition to space. With this in mind, it's perhaps not surprising that our ancient sources look to the Tiber as an actual God (Tiberinus).

Indeed, in the two central foundation myths of the city (Romulus and Remus and the *Aeneid*) the Tiber is cast as the essential factor in success. Plutarch notes that, when the infant Romulus and Remus were placed on the edge of the Tiber it rose up, gently took them down stream, before safely depositing them near to a fig tree (Plut. *Rom*. 3-4). After

[3] The outline below serves to establish a general attitude towards 'natural' water in Rome. However, in subsequent chapters the extent to which this is a truly valid and coherent definition will be challenged.

this intervention by Tiberinus, the infants are discovered by the She-Wolf and set on the path to greatness. Similarly, in book eight of the *Aeneid*, the Tiber comes to the protagonist Aeneas in a dream and guides him towards Latium, and the eventual site of Rome. Again this intervention occurs at a pivotal point in the narrative and, in this case, gives Aeneas a distinct focus. In addition to this, whenever the classical sources mention the river it is in the autocratic language one would expect only reserved for a King, for example "the ruler of waters" (Verg. *Aen*. 8.77), "most eminent of all" (Enn. *Ann*. 66-69). The, Republican and early Imperial, Roman custom to avoid the terminology of sole rulers makes this treatment somewhat conspicuous.

Unsurprisingly, Rome's religious tradition is also profoundly entangled with the waters of the great river. Many of the religious practices that were carried out in the city, through the Republican and Imperial ages, had a shadowy origin in the Age of Kings. Numa Pompillius was the second King of Rome, a sort of semi-mythical individual, who is attributed as being the central creator of such tradition (Hooker, 1963, p. 91). Livy tells us that he proclaimed many of his reforms to have been a consequence of consort with the water Nymph Egeria (*Liv*.1.19-21). Moreover, Numa is said to have created the office of *Pontifex Maximus*, which literally means the "Greatest Bridge Builder". Holland (1961) convincingly made the argument that this title was the crystallisation of the early Roman importance of streams and waterways. Back in this archaic period, the topography of the city was defined by a proliferation of such features, which could only be crossed by performing the *auspicia peremnia*. This, feasibly, shows us a link between the act of bridge building and the high religious office. In addition to this, even the Vestal Virgins (also initiated by Numa) seem to have a definite link to this watery tradition. The important ceremonies associated with the *Pons Sublicius* involved the Vestals throwing effigies into the Tiber (Dio.Hal. *Ant*. *Rom*. 1.38.3; Ov. *Fast*. 5.621-622), a practice that could have started as human sacrifices.

However, while the Tiber inevitably holds a special place in the mythic origins of Rome, other rivers were also perceived of as far more than simple elements of geography. In one of his letters, Pliny the Younger *(Ep*. 8.8) describes the Italian River Clitumnus (the Clitunno, Umbria) in a passage that strains towards the metaphoric (Murphy, 2004, p. 139). The mention of shadowy groves and offerings of coins, suggests a type of reverence. This is underlined by the personification of the water into the god Clitumnus, who is described

in a purple bordered toga (a clear sign of authority). Just like the Tiber, these other rivers of Italy play active roles within the lore of ancient writing. In the *Amores* (3.6), for instance, Ovid depicts the River Anio consoling the character of Ilia, offering her refuge within his kingdom. Ilia is a pivotal individual, being the mother of Romulus and Remus but also the descendant of Aeneas. Moreover this emphasis on the importance of watercourses ranges beyond just the limits of Italy. In his *Natural History*, Pliny the Elder depicts the rivers of northern Europe as key determining factors in the formulation of identity and sense of place (Murphy, 2004).

Furthermore, the archaeological evidence which we possess also confirms this perception of the great rivers of the provinces. When Trajan conquered Dacia, for example, he made a conscious effort to incorporate the personification of the Danube into his coins and monuments. The reclining pose of the personified Danube is similar to depictions of Tiberinus, further emphasising the importance that Romans attributed to provincial rivers. Neither is this just synonymous with Trajan; the numismatic presentation of rivers is almost exclusively in these personified terms, with coins from all different eras and locations embracing this symbolism (see fig. 2). This serves to underline the powerful individual divinity that a river possessed in the Roman world, quite apart from the homogenous value often given to them in the modern world.[4] Moreover, it is intrinsically important because, while the evidence garnered from the literature is valuable, there are always going to be doubts about the extent to which writers of epic poetry are truly presenting contemporary views. The numismatic evidence seems to legitimise this as imagery designed to be recognised by the common people. Indeed, it not only shows us that the water of rivers had a religious aspect, but also exhibits what a valuable ideological tool this provided. On both his coinage and famous victory column, Trajan chooses to frame his great military success in terms of controlling the Danube. Such conscientious replication of an image suggests the Roman people would have immediately understood the power that is implied. This conception of rivers would appear to be alive and well within the High Imperial period, and was being utilised by one of the most successful Emperors in Rome's history.

[4] This practice of viewing rivers as personified individual deities is something that can still be seen in published accounts in the early 1600s, examples of which are documented in Hingley's recent work on Hadrian's Wall (2012, pp. 77-80). The impact of the enlightenment, documented above, was likely key in the gradual marginalisation of such practice.

While perhaps the idea of divine rivers seems rather alien to us today, the importance of springs feels slightly more familiar. No doubt this is largely due to the continued recognition of these sites by later Christian activity (Jones, 1992; Quinn, 1999; Davies & Robb, 2002; Sauer, 2011). The clear correlation between springs and Christian buildings is an explicit indicator of the strength of feeling towards these watery phenomena. The new religion was not based upon such natural worship, but was undoubtedly forced into aligning itself symbolically in order to win over the population (Strang, 2004). This mix of Pagan and Christian belief has been identified in the deposit of lead tanks and pewter with Christian motifs in watery locales (including rivers) known for their meaning back into prehistory (Petts, 2003, p. 111). The strength of the Roman tradition is well attested in the ancient literature. Servius, for instance, famously proclaimed "no spring is not sacred" (*Nullus enim fons non sacer*) (*Serv*. 7.84). This was in reference to the much earlier comments of Virgil, showing an enduring reverence for these locales; something that is illustrated vividly in Rome where a number of important springs were worshipped. Debatably the most important of these was that of Juturna, located in the central *forum*. Again this watery feature is woven into the fabric of Roman history, apparently being the place where Castor and Pollux watered their horses after the Battle of Lake Regillus (Plut. *Cor*. 3.4). Furthermore, it is also known to be the preferred source for water rites involving the Vestal Virgins. Supposedly, they collected water from the spring in specially shaped vessels designed so as the carrier could not rest them on the ground (Wildfang, 2006, p. 11); this was to prevent any spillage, further underlying the importance of what they held. Indeed, Rome was full of other springs and all had different deities that were said to reside within their locality. The aforementioned nymph Egeria, for example, had a spring located near to the Porta Capena that has survived down to this day. This is the place where Numa is said to have consorted with her and thus it is tightly woven into the religious narrative of Rome.

There are similar prominent examples of important springs throughout the Empire and it seems that such locations played a significant role in the development of Roman towns. Some settlements gravitated completely towards their local spring; towns like Aquae Sulis (Bath, England), Aquae Segetae (Sceaux-du-Gatinais, France) and Aquae Statiellae (Acqui Terme, Italy) even show it in their names, and remain famous for their thermal springs to this day (Hodge, 1992, p. 263). No doubt they developed this importance in part due to the

interesting and diverse qualities of the water, as well as its origin from deep within the earth – an area that represented another world (Bradley, 2000). With regard to the common people, their perception of springs would surely have erred towards the supernatural, with layers of folklore adding to this mythos. Yet even a learned individual like Vitruvius, who analyses these features in relatively scientific terms, reveals to us a world where springs can turn people foolish, make all their teeth fall out, make them abstemious or, indeed, give them better singing voices (Vitr. *De arch*. 8.22-24). These descriptions would have served to intertwine the springs of the Empire further into the mysterious, and mischievous, world of dryads and nymphs.

There is a sense that, because of its deep cultural and historical value to the Roman people, water could have presented a medium of legitimisation for new rulers and their respective foundations. A vivid example of this would be the plans of Julius Caesar who, after gaining power, was seeking ways to solidify his support. His chief proposal was the invasion of Parthia (avenging the defeat of Crassus). However, he also planned to shift the course of the Tiber to create a new central area, perhaps intended to supersede the Campus Martius (Purcell, 1996). Bearing in mind the information presented above, we can see this undertaking as a profound symbolic gesture of power. Likewise, we can perhaps look at the widespread building of Roman towns next to rivers (often, somewhat impractically, in their flood plains) as a concept with a similar intention. The key facet to note is that water seems to hold enough symbolic importance in Roman tradition to suggest potential uses beyond merely the practical.

Taking all of this into account, one of the key notions identified by the above tradition, is that nature (and water in particular) was personified and powerful. It is easy for us to be dismissive regarding such notions, based on our own casual use of terms such as 'Mother Nature'. However, when authors like Vitruvius and Pliny present water in a similar vein, despite being well informed and writing works more factual in tone, then we have to re-evaluate our attitude. The implication is that, like in Iron Age temperate Europe, there seems to be a sense that the flow of water was audible and communicated meaning. Previously, scholars have presented the continuation of ritual practices (such as water veneration) as something distinct from the Roman town (indeed the countryside is perhaps a more universally accepted location). We have based this assumption on, supposedly, similar incidents in modernity; the persistent ritual beliefs, for example, in the colonies of

the British Empire.[5] By contrast, the suggestion here is that, in various contexts, the incoming Imperial force was also careful to observe the special nature of water. As such, the regulation and manipulation of this element in the urban setting is something worth analysing.

In the past, we have explained the construction of recognisable building forms as essentially a product of progressive affinity for Roman culture, or possibly as an Imperial imposition on native practices. However, the potential of the urban form being influenced by and in some way deferential to the natural world, and in this case particularly water, can perhaps offer us a different angle on the creation of towns in the Western provinces. Above I highlighted the work of Creighton as an example of the new direction being taken in respect to urban development in Roman Britain. He is keen to emphasise the duality of purpose represented by the creation of towns and changing material culture. Indeed, he puts emphasis on how a memory of tradition, perhaps represented by high status burials of the Iron Age (Creighton, 2006, p. 145), would have been incorporated alongside a new Roman symbolism of power. There is a suggestion within both *Britannia* (2006) and *Coins of the Late Iron Age* (2000) that this symbolism would have perhaps been acquired first hand in Rome, as part of a conscious effort by Augustus to cultivate a school of client kings. Yet, surely as a product of such contact and awareness any shared or mutually understood symbols of power would be emphasised. The suggestion here is that traditions and beliefs centred on water could be evidence of a cultural meeting point; providing a motive for the change in urban form that does not dismiss trends in the prehistoric tradition. However, unlike the work of Creighton, this thesis aims to present a complex configuration that cannot necessarily be easily divided into 'Roman' or 'native'.

1.12 Conclusion

This thesis highlights broad similarity in the conception of water in Britain, but looks to emphasise the unique local resonance of different urban waterscapes. As a result there is a focus on the concept of hybridity and its effect on the understanding of archetypal 'Roman' features in towns. It is proposed that this term provides a more accurate description of the

[5] Schumaker (2008) has written about the continuation of water related myths in Zambia's copperbelt 1927-1930. A high death rate in the mining community was believed to be due to the actions of a vengeful snake spirit in the Luanshya river. Despite radical altering of the landscape to eliminate malaria (the supposed cause of these deaths) the legend, with its associated rituals, continued within the local community.

complex entanglement of cultural change that we see in the past. In its broadest sense, a hybrid represents a combination of different inputs to create a new, and possibly unique, output. Critics of the term argue that this process acknowledges defined inputs that come together to create a hybrid. Therefore it is possible that such terminology could propagate usage of outdated labels; in the context of this thesis the argument would be that hybridity endorses continued use of 'native' and 'Roman' dichotomies. To some extent this is true, in part, because there are obviously some broad shared similarities in the perception of water during this period. Also the current interpretation of many urban features, analysed in this thesis, are entrenched as unmistakably Roman (i.e. the bathhouse). This can make it difficult to escape the expressions of past work. However, the term 'hybridity' actually has the capacity to embrace a far more diverse model of urban development.

In the last forty years, physicists have explored the possibility of multiple dimensions of space existing outside our own three dimensional experience (Greene, 1999; Greene, 2012). In simple terms, this means that if an organism were small enough, a completely flat surface (from our point-of-view) could actually consist of a series of dimensions that are problematic for us to perceive. These parameters of space could fundamentally underpin forces like gravity and magnetism. This way of thinking may well be useful, in a metaphoric sense, for interpreting the past.[6] In this thesis, a series of urban water features will be examined. Our own perspective has led us to perceive them in a certain form, often their practical attributes. However, by acknowledging the powerful presence of water, we can begin to explore the many levels of perception that could have existed for people in the past when experiencing the same urban feature. The way one viewed an aqueduct, for instance, would be based on the frame of reference to which one was exposed. Different people would have access to different dimensions of perception.[7] Ultimately these are all part of the reality of the particular feature, and indeed, the urban experience in general.

Therefore, the objective is not to create a new universal theory that can be applied to any town. While broad trends will naturally be highlighted, the perception of water in the past creates an acute sense of local diversity. So similar features may align (e.g. the

[6] This is perhaps similar to the suggestions made by Julian Thomas in his approach to place and landscape (2001, p. 174).

[7] The recent work of Weiss (Performativity of Place: Movement and water in second century A.D. Ephesus, 2010) in Ephesus has shown how tracking the flow of water through a settlement can illustrate a performativity of place defining or clarifying the meaning of the structures it encounters.

importance of confluences and islands discussed in the next chapter) but actual meaning is still shaped by a uniquely local waterscape, and the perspective of the people experiencing it. Therefore one does not anticipate a definitive hybrid product, or a consistent hybridisation process. Instead there is an expectation to show a meaningful language of water but with notable differences in dialect and expression within the various towns of the province. Part of that language is also the incoming associations that result from Britannia becoming a province of the Empire, which is why ideas of linear continuity can be just as misleading as 'Romanisation'. An effort will be made to discuss the inherent complexity of water beliefs in Roman Italy and how this lends itself to a reconsideration of British evidence. Of course, with the main focus on Britain, this can only scratch the surface of 'Roman' belief and primarily serves as a route to detach ourselves from the instant familiarity of water within the ancient town; if water can be 'made strange' in an Italian context it makes it even less likely that we can rely on a unified 'Roman' view of it in Britain. Ultimately it will be proposed that the study of water can show us the complex hybridity inherent within the main towns of the province.

The object of this chapter has been to expose the limited nature of our study into the Roman town, with particular reference to Britain. There seems to have been an innate conservatism within the subject that has propagated biased approaches to the evidence. Romanisation was first developed at the start of the 20th century in the cauldron of European Imperialism, yet its assertions of positive teleological growth towards an ideal civilisation have only recently been questioned. With this model forming the backbone of our outlook, there has been an acceptance of the Roman town as a known frontier; the Roman buildings have been categorised and justified on the basis of an affinity for the incoming Imperial cultural directive.

The treatment of water provides both an exposé of past failings but also, potentially, an intriguing root forwards in the investigation of the Roman town. The disparity of water analysis, either side of the Iron Age and Roman conceptual 'divide', does not make sense in rational terms. The accusation here is that such thought has been derived mainly from that unearned sense of familiarity outlined above. Indeed, much of the evidence suggests that, unlike our own silent subjugation, the flow of water in the Mediterranean Roman world was acknowledged in similar symbolic and ritualistic fashion as in temperate Europe. As such, the flow of water into the settlement was a dynamic, rather than passive,

entity that would have communicated meaning. The variable and receptive nature of this incoming 'Roman' attitude to water will be explored in more detail using the specific examples of bridges, wells, aqueducts, and bathhouses. It is hoped that this will demonstrate the important role local context played in the definition of these features. Considered alongside pre-Roman interactions with water in the landscapes of prominent Roman towns it will be illustrated how the development of urban waterscapes would likely have held notable symbolic and ritual importance. The expectation is that such analysis can show us how the manipulation of water was motivated by a hybrid mixture of influences and associations, but played an integral role in the definition of urban space. Therefore this study of waterscapes will be evidence-based support for use of the term hybridity in future considerations of the development and role of Roman towns.

Chapter 2: Bridges, Confluences, and Islands - Fusion points of the Waterscape

2.1 Introduction

It may seem like the three elements of the chapter title represent somewhat disparate elements of a waterscape. They are often presented as distinct phenomena, better understood by separate analysis. The work of O'Conner (1993), for example, represents one of the most copious treatments of Roman bridges available, listing and describing all the known structures in the Western Empire. His opening chapter anchors his contribution mainly within the practical realm of the Roman road network, making little reference to the relationship that these structures had with the water they were built to traverse. In a similar way, river confluences are often analysed as strategic points on a water-based economic network, with little attention given to their wider significance in the landscape.

The appearance of river islands often creates circumstances where these two networks must be considered together. Indeed, confluences are one of the primary areas where river islands (eyots) are created. The difference in the speed of flow between rivers can lead to a build-up of sediment; the combined body of water may result in an increased flood risk, and eventually a river meandering away from original channels (Osterkamp, 1998; Gurnell & Petts, 2002); plus the coming together of water will always divide a portion of land creating at least a prominent peninsula. Even river braiding, while only involving a single river, will create a type of confluence and often an island where the water course has separated (the Stour in Canterbury is a prominent example of this – which will be studied later). Consequently these areas, with their island forms, can present an ideal location to bridge a river. The island potentially reduces the crossing distance, or coincides with a change in the speed of flow, which makes construction easier. So there is a clear spatial correlation between these features, something that also produces a remarkable theoretical symmetry. All three features are fundamentally defined by liminality and a changed/heightened nature.

2.1.1 Confluences

A confluence represents a transitory fluvial process, whereby multiple watercourses are combined into a unified whole. Today we can accurately gauge the flow of a river using scientific methods and tools to gain precise data. In the past, this process of identifying changes in flow would have had to be based more around the senses. While the speed and composition of a river would still have been key parts of an assessment, they would have been ascertained by sight, touch, taste etc. Experiencing these changes, rather than analysing them as raw data, would have provided the confluence zone with a deeper sense of transition/liminality. In addition to measurable attributes, the separate watercourses may have possessed their own individual character, identity and traditions related to their physical origins (that is sources and areas they passed through) and the cultural-historic associations formed along their courses. The merging of these unique characteristics would have underlined the transitory 'otherness' of the area.

In combination with the above, confluences are obviously places where the potential for flooding is increased (Hoshi, et al., 2006; Roca, et al., 2009). The phenomenon of flooding can temporarily transform a landscape. If it is persistent, then a river can be surrounded by a marshy zone that is neither land nor water. These conditions have been shown to coincide with increased species diversity in riparian plant growth (Osawa, et al., 2010). With more vegetation, the confluence zone would also logically create a more diverse habitat for animal life. Due to beliefs concerning a personified nature (outlined in the previous chapter), these attributes may have fostered a sense of positive differentiation in the past.

2.1.2 Islands

River islands are often located within confluence zones (maybe even the product of them) and so much of what has been said above continues to be relevant. Another element to islands, however, is their natural boundedness and isolation within a body of water. The human perspective towards an island is one of distance; they can be a challenging to reach and possibly difficult to permanently colonise. Once access is gained, one's perspective is again changed; you see the river and surrounding landscape from an almost unique viewpoint, actually standing within the flow of a river. From this vantage point one can, more accurately, discern the speed and nature of the river channels beside you. Therefore,

the river island can be an empowering phenomenon, enhancing the perspective of an individual. Moreover, these fluvial attributes can then be further altered by the continued presence of an island. This is particularly relevant in the case of rapidly created islands that may be temporary parts of a waterscape. They can realistically alter the course of a river, drastically affecting the lives of people in the immediate landscape. Furthermore, their occasional miraculous appearance after storms or when water levels are low would have been effectively explained by the whims of personified river deities.

2.1.3 Bridges

Perhaps a key realisation in fully understanding the meaning and significance of bridges lies in seeing them as features that can add to a waterscape, rather than something purely designed to overcome it. That is not to say bridges did not have clear practical aims, merely to acknowledge that practicality was not the only role of such a structure. To some extent, bridges form a theoretical fusion point between islands and confluences. As with both those natural features, a bridge is essentially a liminal experience in the landscape; it signals the transition from one place to another, where there is often no alternative route available. Indeed, one's range of movement is reduced to a singular plane; as with an island, the individual is limited by the surrounding presence of the river, but our perspective of the water flow is heightened in this constrained position. The unique characteristics of a river at this point, which may have also defined the ‘voice’ of the watercourse, would have been fundamentally enhanced for the individual. From a bridging point one could appreciate the coming together of waters; the parting of waters; the depth of water; the speed of water; the sound of water and often what lay within it at this juncture or was transported by it. Rather than the traditional ideas of a bridge taming the river, one could see such a structure amplifying the inherent physicality and meaning of the watercourse.

This sense of power is manifest in the macabre theme of individuals committing suicide; river bridges are one of the most common places for such activity in the modern world (Cantor & Hill, 1990), perhaps because they can be perceived as being more marginal and dangerous than other locations. In this circumstance, the bridge makes the water flow a lethal phenomenon, capable of killing and consuming the individual. As

discussed in the previous chapter, there are not many occasions that water holds such strong meaning in the modern world; therefore the relationship of bridges to water flow is intrinsically interesting.

This idea that a river bridge has a deep relationship with its surroundings is something touched on by Heidegger. In 'Building Dwelling Thinking' (1971), Heidegger makes sustained reference to bridges so as to explain his sense of dwelling; he notes that the bridge is a 'thing' which "gathers to itself a fourfold of earth, sky, divinities and mortals". The river bridge has an intimate relationship with the earth, bringing together two banks of a river and providing a stable platform (in imitation of land) across the water. At the same time, as mentioned above, the bridge is suspended in the air above the river – providing a new relationship between man and Heidegger's sky. Furthermore, the acknowledgement of 'audible' water flows can quite comfortably be placed in a Heideggerian sense of divinity experienced on the bridge. Heidegger's description represents the bridge as a type of confluence in itself, pulling together all elements of the 'fourfold'.

The endeavour and effort needed to build a bridge means that they are often an unavoidable part of accessing the entirety of a settlement; this was certainly the case in the Roman period where they were often found in association with town entrances. As discussed previously, the act of walking across a bridge limits one's movement and focuses perspective. On one plane the flow of the river is tied inextricably to the form of the bridge, each enhancing the power of the other. However, the other focal point reinforced by the bridge is the visual exit panorama. The basic structure of the bridge means your sight line is guided by its destination and future continuation in the form of a road or path. In the Roman period a main road into the town would nearly always lead straight to the *forum*. As such, the experience of crossing a bridge could potentially tie together both the heightened perspective of the river and, through direct sight line, the symbolic heart of the Roman town. Heidegger (1971) argues that bridges can actually serve to create locations; perhaps through the fusion of perspectives, we can see how the perception of a town could be linked to, and perhaps legitimised by, the creation of such a structure.

The essential point to grasp is that, while they are often portrayed as purely practical structures, bridges are in fact almost hybrid constructions that straddle many definitions. Edgeworth (2011) has made reference to the combination of both natural and man-made identities to rivers in the modern world. Scarpino (1997, p. 5) reinforces these sentiments

noting how rivers have become “heavily modified, cyborg-like environments”, going beyond a natural or man-made definition. The bridge has been shown to share many characteristics with both river islands and confluences. Furthermore, it can interact and enhance the power of both of these natural features, while relating them to the perception and experience of a nearby urban landscape. An understanding of the less obvious value to these structures could be important in comprehending their overall impact on nearby settlements.

2.2 Evidence of Temperate European Tradition

As mentioned in the previous chapter, the importance of water has become an accepted factor in the study of prehistory. In particular, areas associated with confluences and islands correlate strongly with the occurrence of Iron Age shrines in Britain. Willis (2007b, p. 120) notes the significant proportion of such ritual areas that were in close proximity to points of tidal and freshwater confluence (Elms Farm, Heybridge; Hayling Island; Lancing Down, West Sussex; Worth, Kent). There is also seemingly a link between these areas and prehistoric burial rites; the barrows at Cossington (Leicestershire) are an interesting example of this, placed within a setting defined by numerous confluences (Thomas, 2008). Similarly, at the confluence of the Tas and Yare (Norfolk) there is evidence for Neolithic monuments and Bronze Age barrows (Rogers, 2008, p. 93).

Added to this, there is proof of a general veneration of islands in prehistory. The aforementioned example of Hayling Island is the site of a large Roman temple complex, but it is thought to have been just as important in the Late Pre–Roman Iron Age (King & Soffe, 2001). Another prominent example is found at Fiskerton (Lincolnshire); nearby Lindsey was an island during the Iron Age and between the two sites there is evidence for extensive ritual deposition (Parker-Pearson, 2003, pp. 191-192). This sort of activity is also mirrored at places like Llyn Cerrig Bach and Flag Fen Basin (Pryor, 2001). Parker-Pearson, in addition, notes that many of the concentrations of metalwork we find in the Thames occur close to islands such as Wallingford, Runnymede and the islets in Syon Reach (Parker-Pearson, 2003, p. 193). These examples show the continued prominence of such locations from the Bronze Age down to the Late Iron Age, underlining therefore the probability of their importance when considering later eras.

Such archaeological evidence and deduction is further complemented, perhaps somewhat unusually in the case of temperate Europe, with evidence from classical sources. Both Tacitus (*Ann*. 14. 30) and Strabo (*Geography*. 4. 5) make a point of emphasising religious rites taking place at islands. The former describes a battle between Roman forces and native Britons, who are defending such a location. Strabo seems to add to this image noting fierce protection of such landscapes, even suggesting brutal practices such as cannibalism. While both accounts cannot really be taken at face value, there is a sense that they corroborate a general truth. This only serves to further highlight the need to study these locations when they subsequently become incorporated into the highly-ritualised Roman world.

From the point of view of this thesis, an interesting aspect of the ritual activity on many of these Iron Age/prehistoric island sites is that it is also fundamentally linked to the act of bridging. At Llyn Cerrig Bach the offering site (where many deliberately damaged objects were thrown into the lake) is between a rock platform and a small island. Macdonald and Young (1995) have claimed that these finds may well have been associated with a causeway that linked both features in the Iron Age. At Flag Fen, there was a similar bridge structure, which spanned the bay between the north shore at Fengate and Northey Island (a promontory of Whittlesea). This structure likely dates from the Late Bronze Age, but nonetheless continued in use into the Iron Age. Moreover, many wetland deposits are associated with this site throughout its date range, which has led Pryor to interpret it as a place where intimate and private offerings could be made to ancestors, perhaps alongside more obvious ceremonial events (Pryor, 1992, p. 529). Similarly, Fiskerton is notable for its causeway to the (then) island of Lindsey, one of a number of potentially significant crossings of the Witham. Indeed, nearby Washingborough and Brigg have also been interpreted as venerated pathways across water (Parker-Pearson, 2003, p. 186). These examples also represent areas of confluence, where different waters are combining around the islands and bridges.

As a result, it seems that evidence from Britain shows the potential truths in the theoretical outline at the beginning of the chapter. These three elements of bridges, islands and confluences all appear to combine to represent areas of great meaning for people, throughout a long period of prehistory. Furthermore, the act of ritual deposition in these areas would appear to underline the importance of dwelling and perspective in these zones.

It stands to reason that these offerings were not made in a casual fashion; their concentration and carefully manipulated form suggests a structured process, while the artefacts themselves were often prized and highly charged items symbolising authority, community and transformation (e.g. tools), the work of numerous skilled hours of human craft and creativity. This, in turn, must mean a certain length of time would have been spent observing the correct protocols and traditions involved in making a votive deposit. One would assume that this was time spent at a single point. If so, the choice of location is surely related to the perspective of the participant(s) at that specific place. In these areas, there may have been some significance in experience that combined the bridge, water flow and surrounding sight lines. This consideration of stillness on a bridge (while making a votive offering) reinforces the notion that they were active structures, inter-related to their surrounding environment.

In line with this, we must also consider the reflective nature of water itself. At this point of elevation over the river, one may have been exposed to the visual illusion of another world. Kamash (2008) has noted the importance of reflection, with it possibly giving access to other dimensions. Indeed, Celtic mirrors have been seen as potentially offering gateways into the past and future for people of the Iron Age (Giles & Joy, 2007, p. 25) and it is not surprising, from this perspective, that they appear in burials of the period. In a world where people would have been less exposed to the phenomena of reflection, the extraordinary experience of seeing oneself in water could have been more significant than previously thought. Furthermore, when walking on the bridge, one would also have seen the surrounding vista presented in the water. Among the many reflections could be nearby buildings, one of these would undoubtedly be the bridge itself. As such the built world would be intertwined on a visual level with the water, perhaps changing the perceived colour of the flowing river itself.

Similar elements of perspective have been documented in association with other prehistoric watery contexts. Indeed, Bradley's (2000, p. 142) vivid examples of burial cairns on the Scandinavian coast are a case in point. On the face of the coastal cliffs there seem to have been carvings of footprints descending down towards the sea. These carvings have a defined perspective and can only really be appreciated from a point in the water. As a result, the individual at sea is reminded of the ritual connection between the dead and the water he is sailing upon. A similar pattern has also been observed in Orkney – where the

burial cairns seem to be deliberately positioned so as to be discerned from the sea (Phillips, 2004).

It is clear that there is ample evidence to link the phenomena of confluences, islands and bridges. In these examples, bridges were not merely passive structures of engineering, but active constructions that clarified and enhanced the relationship between individuals and watery contexts. In fact, the power of these areas was such that Pryor (2001) and Parker-Pearson (2003a) have both noted the potential political/ideological value in their association and control. Therefore, in Britain (and the other northern provinces) there existed a fundamental appreciation of the symbolic and ideological value of these places on the part of the native elite. Considering the enduring nature of other ritual processes (e.g. Fulford, 2001), it is logical to think that such beliefs would not quickly fade under Roman occupation.

2.3 Roman Associations

2.3.1 The History of Rome

Of course, the above acknowledgements do not necessarily represent a radically new viewpoint on the evidence. The contentious issue remains the habit of Roman period scholars to ignore such activity in their consideration of urban contexts. Furthermore, the problems inherent within this research direction are compounded by the ample evidence to suggest a very similar special appreciation of bridges, islands and confluences in the Roman tradition. Therefore, this is not merely ignorance of prehistoric evidence, but a denial of possibly a fundamental area of cultural proximity in the ancient European world.

In this regard, the city of Rome itself proves an intriguing example which is striking considering the crafted symbolism of buildings within the capital. In close proximity to the central *forum* area itself, the Tiber braids around the Isola Tiberina (see fig. 3). We have already noted the special value that was attributed to the Tiber (and other rivers/springs), so the natural extension of this would be a similar interest in river islands; they are, after all, found in the middle of such watercourses. With this is mind, it is no surprise that the Isola Tiberina is woven into the core narratives of Roman history. Both Livy (2.5) and Dionysius (*Ant*. *Rom*. 5.13.) note how grain sown by the tyrant Tarquinius was cast into the Tiber and created the island. As a result, this links the creation of the Isola Tiberina to the

founding of the Republic – the beginning of Rome's ascent to world power. Furthermore, and perhaps more significantly, the island also seems to have been a central place for cult worship. There is reason to believe that Aesculapius, Tiberinus, Faunus, Jurarius, Veiovis, Semo Sancus, and Bellona were all worshipped in some fashion on the island (Brucia, 1990).

Consequently, the Tiber Island seems to have both a religious and ideological resonance. Both are, no doubt, also enhanced by such proximity to the *Forum Romanum* and *Campus Martius*. Indeed, the visual association that one would make with such areas is well worth considering. From the vantage point of the island one can see along the Tiber, engaging with the same landscape so deeply invested into Rome's mythic origins. Added to this, the low lying topography of the area would suggest that some of the monumental works of the *Forum* could have been appreciated from this vantage point (Ammerman, 1990). Possibly even the sounds of construction would have reached the island, meaning the senses would be saturated with activities related to the creation of Roman power and identity.

The Tiber's path through central Rome was (and still is) characterised by many bridges. Indeed, the area around the Tiber Island represents the narrowest bridging point of the river; something that furthered the ritual attention directed towards the island. In fact Holland (1961) notes how, in early Rome, the numerous streams in the central areas may well have been considered deities, which could only be crossed after performing the *auspicia peremnia* (inauguration recognising importance). As the population of the city expanded such ritual activity would have needed to evolve. To avoid the need to carry out such a ceremony at every occasion one passed over water, Holland (1961) has suggested that, permanently blessed bridges were created. In fact, she proffers that originally a 'Janus' was the name given to these venerated crossings. This would explain the tradition of opening and closing the *Janus Quirinus* in times of war, the bridge would have been a defence mechanism of sorts. Thus the upkeep of the original bridge over the Tiber, the *Pons Sublicius* (near Tiber Island), was entrenched in ritual.

As mentioned in the last chapter, the title of *Pontifex Maximus* ('Greatest Bridge builder') shows a distinct link between religion and the act of crossing water. It reaffirms the suspicion that bridges were not simply a practical means to an end, but structures capable of taking on greater abstract meaning. Varro (*Ling*, V.83) underlines this point of

origin for the title, saying that the pontifices repaired the original bridge and were deeply involved in the ceremonies which took place. Furthermore, Livy (1. 21.5) writes about the ritual practice of throwing human effigies off the *Pons Sublicius* (perhaps in imitation of human sacrifice). This act of casting objects into the water does perhaps echo the actual foundation myth of the island itself, and there may be a suggestion that the two phenomena are entwined. This interpretation reveals the Tiber Island as a place that was clarified and defined by the creation of a nearby bridge which brought the natural landscape into the ritual sphere and defined its place in Roman tradition.

Once again, the act of dwelling on the bridge (in order to offer the sacrifice) would have given the individual a perspective on the Tiber, and the nearby island, that is out of the ordinary. Perhaps from this point one could appreciate the braiding around the island and the merging of flow with the other numerous tributaries of the Tiber.[8] Furthermore, Holland's association of this activity around the bridges of Rome with the divine figure of Janus (one of the oldest gods of the Roman pantheon) only serves to fundamentally underline the importance of these traditions. There is also the fact that Janus is often depicted as a god with multiple faces/identities and represents beginnings, endings and transitions. Janus, in many ways, represents the power of liminality that we have established as a central theme to confluences, islands and bridges.

The proximity of the *Forum* and *Campus Martius* (two of the areas that received most attention for Imperial building projects) to this zone is intriguing. This could be written off as coincidental, but the extremely unpractical ground conditions of both building areas hints at an active engagement with this watery landscape.[9] Ammerman (1990, p. 637) notes how this low lying marshy area of the city was (and still is) extremely vulnerable to flooding. That Rome was built on seven hills is a well-known fact, but this only heightens the curiosity concerning the choice of site for the *Forum*. Having the administrative centre of the capital so easily exposed to nature's ravages seems distinctly at odds with that modern practicality we often ascribe to the Romans. Indeed, the location is a clear contradiction of Vitruvian values; which stipulate the importance of being on stable ground

[8]Holland (1961) notes the numerous tributaries of the Tiber which were located around the central area of Rome. The Circus Maximus, for instance, was consistently plagued with flooding because of such watercourses.

[9]The Tiber Island itself was the focus for extensive building work in the mid-first century B.C. Among these projects were the building of the *Pons Fabricus*, *Pons Cestius* and renovation of the Temple of Aesculapius (Haselberger, et al., 2002, p. 149). The latter two could potentially have been part of Ceasar's building works.

away from the neighbourhood of marshes (Vitr. *De arch*. 1. 4). The selection of site would seem to owe more to the consideration of a meaning-laden, ideologically charged, landscape that could enhance and legitimise new constructions.

2.3.2 The Productive Waterscape

Our understanding of the potential of this type of landscape can be assisted by looking at some of the classical sources. At a point in *De Legibus*, Cicero is showing Quintus and Atticus his private villa in Arpinum. Atticus describes the villa as being located on an island in the River Fibrenus "whose divided waters leave its verdant sides, and soon re-join their rapid currents". Furthermore, he adds:

> *The river just embraces space enough for a moderate walk, and having discharged this good-natured office, and secured us an arena for disputation, it hastily precipitates itself into the Liris; where, like those who ally themselves to patrician families, it loses its obscure name, and gives the waters of the Liris a greater degree of coolness*
>
> Cic. *Leg*. 2.3

So what we have here is a river that braids around an island and then subsequently forms a confluence with another major watercourse. The tone at the heart of Cicero's description gives us an appreciation of how these elements of the waterscape were key features of his villa; hinting at the overall symbolic and cultural significance they had for Roman people. However, the details of the passage also confirm some of the theoretical postulation of this chapter thus far. Firstly, the description of "verdant sides" takes us back to the idea of heightened nature in confluence zones. Indeed, the imagery suggests a flourishing riparian zone with lush vegetation – potentially different from the surrounding landscape. Secondly, the island is shown as "an arena for disputation"; this implies a state of transition, a place where views are debated, changed, and moulded. In addition, it invests the environment with a value of changed perspective; debate can alter one's views on pivotal aspects of life. This is something that appeared to be relatively common in other grand villas. Hadrian built an island enclosure at his villa (at Tivoli), which is a miniature dwelling complete with baths, latrines, a peristyle and enough space to segregate sleeping,

working and eating for a small number of people (McFarlane, 2003, p. 142). Pliny constructed an island *triclinium* for his villa (at Sperlonga), complete with retractable bridges to aid privacy of conversations (Ricotti, 1987).

Returning to Cicero, there is an acute appreciation of the river's flow as it passes the villa. The Fibrenus is described as a fast flowing river that has a noticeable coolness; when it combines with the Liris it gives the larger river new properties and characteristics. Indeed, both flows are given individual identity and are compared to an aspiring *novus homo* (the Fibrenus) and an established patrician family (the Liris). The subsequent union may retain the name of Liris, but the flow is of a very different quality. In many ways, this passage shows Cicero utilising this charged waterscape to present his own ideological image; he was a *novus homo* who had to make careful alliances, with established patrician families, to cultivate his own power.

Lastly, but perhaps most intriguingly, this scene has much in common with the example of Rome. Atticus notes “how bravely [the island] stems the waves of the Fibrenus”. The image of a ship is seen as an obvious link to the Tiber Island of Rome (Spencer, 2010, pp. 68-9); a travertine and tufa walled embankment at the South East of the island had the shape of a ship's prow (Haselberger, et al., 2002, p. 149). The link implies a similar conception of the environmental circumstances of Tiber Island (a place of water confluence) but also highlights its ideological value as a landscape.

Neither is Cicero alone in appreciating the value of such an environment. In *De Re Rustica*, Varro supplies us with a detailed description of his villa at Casinum. The location of the building again forms a striking parallel with the previous example:

> *I own, near the town of Casinum, a stream which runs through my villa, clear and deep, with a stone facing, fifty seven feet wide, and requiring bridges for passage from one side of the villa to the other; it is nine-hundred and fifty feet in a straight line from the island in the lowest part of the stream, where another stream runs into it*
>
> Varro. *Rust. 3.5.9*

So, again, we have a villa that is (at least partly) constructed on an island, providing an intimate association with a river and a nearby confluence (where the Gari meets the Liris). Varro even makes reference to the running theme of 'heightened nature' by deeming the

area a fitting place to locate his aviary of exotic birds. In this example, we also have explicit mention of numerous bridges that link the estate; presumably these would also have been a feature of Cicero's residence at Arpinium. These structures harness and unite the complete landscape of the villa, incorporating the water flow into one's experience of the estate.

The evidence provided above illustrates that association with dynamic waterscapes could help project the power of individuals. Tiber Island, in the centre of Rome, with all its ancient traditions and immediate associations could be seen to provide enough symbolic power for any replication to be interpreted as a profound statement on a private estate. However, what we see with the villa examples is actually production and enhancement of other identities, by manipulation of the meaning-laden water-flow. Cicero uses the transitory nature of the waterscape to seemingly emphasise his own power within a political system that revolved around the prestige of a few old patrician families. His placement of the villa in the flow of the Fibrenus appears to usher the river from obscurity into the renowned waters of the Liris. By associating his construction with the beneficial change the Fibrenus makes to the Liris, he would have rooted the villa within the general understanding of the landscape. The Liris is one of the main rivers in Italy and was venerated in a similar way to the Tiber. It would have been charged with ancient significance, myths and traditions of the past. Causing a change in its character would have been a powerful statement; similar to Cicero's impact in Rome, despite his unorthodox rise to prominence.

For Varro, the effect is perhaps more about emphasising the deep-rooted association with his own territory at Riaparum. He is known to have spent most of his life in the area, and presumably would have identified strongly with the landscape. By placing his villa within the Rapido (Gari), near the confluence with the Liris, he emphasises the power and prestige of his own territory as well as his personal legitimacy in relation to the ancient significance of Rome (represented by the powerful flow of the Liris). On a personal level, he could also be expressing his own influence in both locations.

2.3.3 Law and Water

The *Corpus Agrimensorum Romanum*[10] gives us an insight into a general legal perception of landscape, which could well have translated to policies enacted in new provincial territories. This document represents a combination of authors from very different time periods (straddling the whole Roman period) a fact which leads to direct repetition, with later authors compiling legal references from the past. Nevertheless, it is interesting to note that water is referenced continually throughout the text (Dilke, 1971, p. 104). Furthermore, many of these references highlight a distinct ambiguity in the perception of watery landscapes, which results in a consistent arena for dispute between landholders vying for power.

Indeed, the action of flooding and changing river flow is an issue of great dispute. Frontinus (8. 5) notes the example of an old river bed which, through the creation of an island due to flooding, has had its current forced in a new direction. Most rivers would have been public property, but a nearby landowner could now try and claim the old river bed as part of his land; this would inevitably lead to dispute with the person who had been disadvantaged by the new river course. Similarly, Urbicus (39. 28) highlights the disputes that arise when flooding deposits soil, and other materials, on nearby land. Seemingly there was often disagreement as to whom this new soil belonged, or who was responsible for removing the waste, especially if it was blocking the river. In the face of such violent fluvial action, many of the authors emphasise a common practice to make the river, and an area around it, a neutral zone that is public property (41. 35). This meant that if flooding changed the landscape, it did not necessarily inconvenience private property. In some ways this would have created a type of legal liminality for such watercourses with no firm sense of associated ownership.

There are seemingly changes throughout time in respect to these areas; at some points they are presented as *subseciva* (land that would not be included in centuriation). This is potentially germane because at different points all this land was owned by the Emperor himself - Vespasian and Titus are both examples (Campbell, 2000, p. 345). This would appear to invest a degree of importance in this land. There are also some allusions to *subseciva* being land that remained in native hands in territories conquered by Rome. This is, of course, intriguing considering the Iron Age associations we have noted in relation to

[10] Note that the references below refer to the Campbell (2000) translation of the *Corpus Agrimensorum*.

such landscapes in temperate Europe. It may also emphasise the role of the bridge, tying different properties together over a central transitional zone. Indeed, when bridges are mentioned in the *Agrimensores* it is often in association with *trifinium* or *quadrinium* (places where three or four separate territories come together).

There is one reoccurring example that many of the authors of the *Agrimensores* use (Frontinus, Urbicus, Hygenus) when writing about fluvial action; it highlights the power of river islands to re-define landholdings, with particular reference to the Po. There is an acknowledgement that a violent river could often create islands, either within its flow or by changing course and braiding around land. The majority of rivers were deemed public property so there appears to have been much dispute over who would own these new land formations. Some rulings declare that if this new island was created from your own land (and can be identified as such) then it will remain your property; similarly if a river braided around a piece of land it could remain in the care of the original landowner. However, there are other cases which involve the forceful movement of land, so as it adjoins a neighbour's holdings, this could have resulted in a change of ownership. Furthermore, even if one maintained the ownership of land that had become an island, it would have had a very changed nature. The majority of rivers remained public land and were protected from any alterations on behalf of private landholders. As such, it perhaps became more of a symbolic extension of local power, showing the reach and influence of a landholder (potentially into the traditional territory of one of their neighbours).

The running theme of watery landscapes, changing and dictating power relationships, is very apparent within the *Agrimensorum*. It illustrates that, in a legal sense, these areas were contested and valued by landowners. Perhaps some of this importance is derived from the above assertions of ideological and religious value to these areas. That notwithstanding, the legal evidence adds to a picture of value in the Roman perception of waterscapes. As such, the relationship of these zones with settlement could be derived from a more complex rationale than previously thought.

2.4 Italian Towns and Local Waterscapes

Interestingly, a number of the prominent towns of Roman Italy were sited within dynamic waterscapes. There is no doubt that many of these settlements had key practical requirements (such as active port locations) that required perseverance against unsuitable

conditions, in the face of potential economic gains. However, the examples below do also substantiate the idea of a pronounced symbolic and ritual currency to water, which can be tied into the architectural features of the town; bridges appear to have been one feature that wove water into the fabric of the urban experience.

2.4.1 Towns on the Po

The *Agrimensores* (discussed above) underlines the violent riverine landscape of this region. The Po and its tributaries are described as watercourses that could rapidly reshape their surrounding landscape, with the sudden appearance of river islands being a relatively common occurrence. The towns of the Po represented the heartland of the region known as Cisalpine Gaul. While the original 'Celtic' tribes of the area were defeated by 222 B.C (long before the Imperial period) the region perhaps represents a closer linking point to the circumstances of Roman conquest in Britain than other areas of Italy. The Roman colonies of the Po would surely have had to interact with traditions and associations very similar to those attributed to contemporary temperate Europe.

Ward-Perkins (1974, p. 29) notes how this Po Valley area represented Rome creating towns as an ideal expression of its principles. He compares the region to a testing ground where the Romans learnt the techniques needed to expand their urban form across Europe. Of course, unsurprisingly given the date of this publication and the prevailing paradigms, Ward-Perkins conceives the Roman Imperial presence in Northern Italy as one based around economic efficiency and political imposition. It is often noted that the land of the Po Valley was subject to more far reaching reorganisation than any other area in Italy (Witcher, 1998; Williams, 2001). The unparalleled use of centuriation around the new towns of Piacenza, Parma, Brixellum, Bononia etc suggests an efficient parcelling out of territory to maximise industrial agricultural aims. However, Purcell (1990) has emphasised how this treatment of the Po valley is far from simply a matter of economic expediency; it can, in fact, be seen as a profound symbolic statement based on the traditions of manipulating water to exhibit power. Too often people conceive of such reclamation of watery landscapes as Rome neutering and subjugating the natural world, but the account of the Po in the *Agrimensores* hints at the opposite. By reclaiming the marshes around the great river and its tributaries one could utilise the area for agriculture and various

landholdings; but the legal accounts suggest that, if anything, this exaggerated the power of the Po. Indeed, settlement and centuriation of this area meant that the river was more deeply intertwined in the arena of Roman concern than it had ever been; it was not an enemy vanquished and subjugated, but rather an opponent more thoroughly confronted. The Po remained a powerful force that could affect the towns and landholdings of the region (as testified in the *Agrimensorum* and confirmed through environmental data) and could consistently test the endurance and legitimacy of such settlements in the landscape.

The effect of this may have been that this northern region of Italy maintained some local 'Celtic-style' associations with water itself. By deeply intertwining the new Roman urban form into the waterscape one would make a profound statement within such traditions. Draining marshes does not mean the water of the Po disappeared; instead, it was manipulated and guided into new forms. Canalisation could actually have made more confluences and fusion points within the waterscape, leading to more braiding and interaction with settlement. If the Po Valley represents a blueprint for Rome's treatment of the Empire, then it must be one where the manipulation of water plays a prime role in the conception of the urban form. Moreover, this profound interaction with the medium underlines the potential hybridity with which we may even conceive these Italian towns.

2.4.2 Minturno (*Minturnae*)

One of the most studied towns of Roman Italy is that of Minturnae (Minturno). Located in southern Lazio on the bank of the Liris (Gargliano) it was originally a free city before being defeated in the Second Samnite War in 314BC. The region represented a stepping stone into Campania for Roman expansion southwards from the heartland of Latium (Livi, 2006, p. 90). The site has a continuity of settlement from this early point through to the sixth century A.D, as shown by numismatic evidence (Frier & Parker, 1970, pp. 107-8). From the perspective of this chapter, it is intriguing to note the geographical setting of the town. Minturnae was placed on the Liris in proximity to its river mouth into the Mediterranean. Indeed, it may well have been a zone where smaller streams, originating from the nearby mountains,[11] met the Liris as the Torrente Ausente does today.

[11] The Monti Aurunci and Ausoni to the east, and the massifs Roccamonfina and Massico to the north and south (Livi, 2006, p. 92).

There is clear evidence for pre-Roman religious activity in the surrounding areas at Monte D'Argento and close to the mouth of the Liris. The first of these represents a coastal cult site situated at a high point overlooking the sea. There is activity from the seventh century BC onwards into the Roman period; votive offerings are found throughout this time period (Livi, 2006: 104). However, perhaps more important, is the Sanctuary of Marica on the right bank of the Liris (Garigliano) some 700 metres from the mouth of the river. Salyer (1947, p. 411) highlights the observations of the original 1926 excavators, who mentioned the remains of this religious site as being located on an island of solid ground in the expanse of marshes. Indeed, this sanctuary apparently played an important role in the story of the famous Roman general Marius as he fled from Sulla; he had to negotiate the religious rites of the area before he could move on (*Vell*. *Pat*. 2. 19. 2; Plut. *Mar*. 39-40). The deity Marica is thought to have been an archaic water goddess whose name links her to marshy areas (rather than being directly involved with the nearby sea). Modern archaeological work, however, has shown this to be the site of a rather large temple complex with multiple buildings and potentially many additional deities [12] (Livi, 2006, p. 111). The enduring popularity of the sanctuary is underlined by the large number of votive offerings that have been recovered (Livi, 2006, p. 111).This sacred area seems to represent a zone where salt water and fresh water came together. Bearing in mind all that has been said above, it is exactly the sort of locality where one would expect veneration and a heightened relationship with nature.

The town of Minturnae is located just upstream (1.5 km) of this sanctuary and thus is deeply invested in the same meaning-laden landscape. The Via Appia enters the settlement from the east and crosses the Liris on the *Pons Tirenus*.[13] This structure was discovered during archaeological survey in the 1970s, when a concentration of large wooden piles was found on the west side of the river (Brookes, 1974, p. 43). Further exploration led to the complimentary find of a large concrete mass on the opposite bank. Both of these discoveries were in line with the projected route of the Via Appia from the centre of Minturnae, thus it seemed logical that this was the Roman bridging point over the Liris. Moreover, a high concentration of metal artefacts was found within 25 metres of the piles. Many of these finds were bronze and represented a great variety of items including: keys,

[12]Republican period worship of Hercules has been postulated by Morel (1988, p. 58) and other deities such as Isis and Sarapis are potentially present in the Imperial period (Mingazzini, 1938, pp. 934-935).
[13] A bridge that is also attested by Cicero (*Att*. 16.13.1)

bolts for locks, ornamental fittings for leather or wood, needles (for sewing and repairing nets), medical/toilet instruments, bronze jewellery (rings, fibulae, hairpins, necklace fragments and bracelets) and small cast figurines of various deities. Furthermore, a total of 1747 coins were recovered in the same deposit (Brookes, 1974, p. 45). These finds make up much of the numismatic evidence referred to earlier. While interpretation of such everyday items can often be problematic, it has largely been accepted that this assemblage represents a concentration of votive deposits into the water (Ruegg, 1995, pp. 68-73). Furthermore, a concrete platform was discovered and a (possibly associated) togate statue; it has been suggested that this could be evidence for a river side shrine (Brookes, 1974, p. 45).

All of this activity around the bridge shows that the special nature of the waterscape was not purely isolated to the nearby shrine. Indeed, the people of Minturnae seem to have perceived the immediate area of the town as an important place to engage with the rich mythology of the nearby river, and to actively construct it. One could argue that the wooden pile structure of the bridge is located at—and adds to—a point of flow change in the river. The area of the 1971 survey around the wooden piles shows a change in depth from 3.5 metres to 9.5 metres. This six metre difference from the weed line into the central river is created by a rocky slope (which is probably one of the reasons why it would have been difficult to build a masonry bridge here). The main structural elements of the bridge were physically rooted into this transitory zone and could well have emphasised its special nature. As outlined above, the bridge would have given a greater perception of the river itself; an individual would be able to see a change in depth and speed. Being more aware of the rivers attributes in this way allows one to relate the action of placing something in the river into the wider context; you can see that the water will pass by the supposed riverside shrine and within a few minutes will be flowing past the sanctuary at the mouth of the river.[14] It ties the ritual waterscape into this architectural element, physically and psychologically associating it with the meaning-laden flow of the river.

However, as was discussed earlier in this chapter, the bridge also channels the land based perspective of an individual in certain directions. As mentioned above, the *Pons Tirenus* ushers the Via Appia into the town of Minturnae, forming the *decumanus maximus*

[14] The Liris is particularly fast flowing here, without a seasonal change in depth. This is another practical reason why the construction of a masonry bridge would have been a difficult undertaking (Brookes, 1974, p. 45).

for the colony (see fig. 4). This means the straight line perspective from the *Pons Tirenus* would have led directly into the monumental heart of the settlement.[15] While the town had quite an extensive Republican *forum* complex on the north side of the Via Appia (Livi, 2006), there was further building work undertaken in the Imperial period. After becoming an Augustan colony, a complex consisting of a theatre, porticoes, and temples to Divus Julius and Concordia Augusta were constructed around the existing temple of Jupiter. Lomas and Cornell (2003, p. 36) describe this development as a whole to be almost a monument to Augustus; also noting the close parallel in form with the *Forum of Augustus* in Rome. Such patronage of a town so deeply rooted into a watery environment and rich with related associations and rituals is an intriguing concept in itself. Yet, the direct line that the road takes from the *Pons Tirenus* into this highly symbolic area of Imperial power would surely have linked the two in the perception of the individual.

As one dwelt on the bridge casting a votive object into the river (and engaging with the meaning of the waterscape) you may also have been aware of the impressive monumental vista of the Augustan *forum*. In Minturnae, this could very well have been a matter of direct sight (the settlement is low-lying), but even knowledge of what lay over the horizon would link the bridge to the main structures of the town in the mind of the individual. The combined effect of this is that the bridge becomes a fusion point between the meaning-laden flow of the surrounding waterscape and the ideologically charged architectural elements of the nearby town; it is a liminal construction that draws in the surrounding meaning of both the 'natural' and 'man-made' worlds, aiding a fusion of the two. This link is important because it could have legitimised the new Augustan elements within the pantheon of local traditions, leading to a more prosperous relationship between the incoming populace of the newly created colony and the people already living in the area. Indeed, the constant need for upkeep of the bridge itself also meant that it forged an on-going link to the past.

[15]Added to this, the *cardo maximus* also seems to cross a causeway type structure before it enters the town. This probably meant the road crossed a marshy area north of the town itself, creating another point of engagement with the watery environment.

2.4.3 Pesaro (*Pisaurum*)

The founding of a colony at Pisaurum may well have been republican, but Augustus certainly sent new colonial residents to the town in his reign (Harvey, 2006). However, it is worth mentioning this town because it is the location of another reference to the aforementioned goddess Marica (Harvey, 2006, p. 213; Salyer, 1947, p. 410). The town sits on the east coast of Italy in the modern region of the Marche, and is at the mouth of the ancient river Pisaurus (modern Fano) into the Adriatic Sea. Indeed, the location is very similar to Minturnae, with a nearby mountainous region that would have emphasised the watery nature of the site in antiquity. Again we have a confluence between sea water and fresh water that could potentially derive special meaning. Furthermore while there is little in the way of island forms in the modern day, the delta-like environmental setting of the town suggests a strong possibility that they could have been present in antiquity. There is also evidence that an Augustan period bridge was built over the river, forming a crucial crossing point for the Via Flaminia (O'Connor, 1993).

The dedication to Marica is one of a series of inscriptions that were found in Pisaurum.[16] Harvey (2006) has noted that the deities mentioned in this collection all relate to the central areas of Latium and Rome. They were part of the traditional Latin identity, and their appearance in Pisaurum may have been a colonial reflection of an antiquarian imperial taste and interest. Harvey (2006, p. 135) notes that this could have filtered down from an Emperor like Antoninus Pius, who carefully cultivated the veneration of Latin icons/deities (such as Mars, Rhea Silva, Romulus, Aeneas, Anchises and Scanius) by featuring them on his coinage. However, with this in mind, we surely also have to consider the siting of the town itself. If there was an intention to mimic the symbolism of Rome, then the deeper relationship with the river (in imitation of the Tiber?) could have been important.

2.4.4 Rimini (*Arminium*)

Just north of Pisaurum another town was located in a similar watery setting (see fig. 5.). Arminium (modern Rimini) was founded at the mouth of the Marecchia River and a confluence with the lesser Ausa River. Thus the settlement is again the site of a fusion

[16]Mater Matuta, Juno Lucina, Jupiter Latius among others.

between fresh and salt water, with potential for flooding and marshy areas which could have resulted in river islands. Again, this is a town which is blessed with patronage throughout the Imperial period. Augustus constructed a monumental arch, a theatre and a notable bridge across the Marecchia (Keppie, 1983, p. 187). The arch of Augustus was constructed in 27 B.C. to celebrate the completion of works on the Via Flaminia. Interestingly, the road would have crossed the ancient course of the Ausa just before the monumental arch meaning the Ponte sull'Ausa was in the proximity (O'Connor, 1993, p. 85). While the bombing of this area in the Second World War led to the destruction of this minor bridge, it would originally have been a feature of the entrance to the Roman town. The positioning of the arch probably infers that the Ausa was considered as a town boundary, which of course can often be linked to various rituals in the Roman tradition. However, at the same time, the arch visually frames the vista of the town and links it to patronage of Augustus. While crossing the bridge one would probably gain the ideal perspective of the arch itself, hence linking the waterscape of the Ausa to the monumental achievements of the Imperial town. In fact, Holland (1961, p. 292) cites the placement of the arch as in direct association with the bridge, as a joint statement in the Janus tradition.

The aforementioned bridge across the Marecchia (the Ponte d'Augusto) was commissioned by Augustus, near the end of his reign, and was subsequently finished by Tiberius.[17] The appearance of the bridge was carefully considered, with the line of the deck emphasised by projecting cornices on ribbed supports. Furthermore, the decorative niches with superimposed pediments have been built into both the upstream and downstream faces of all the piers. The arches are semi-circular, apart from the central span which does not rise as high (O'Connor, 1993, p. 84). The result of this is a striking, powerful looking bridge that has a profound visual impact on the waterscape. The reflection of the bridge is often extremely prominent and almost completes the imagined continuation of the semi-circular form. It would stand to reason that such a visual effect would emphasise the flow of the river itself (as when there was a reflection the image would suggest water flowing into or out of a pipe or orifice); higher or violent waters could disturb/resist the harmony and symmetry of the reflective image. Also, faster flowing waters would interact with the

[17] It carries an inscription that records it as 'given by both emperors' (Ashby & Fell, 1921, p. 190).

numerous pillars (parting violently or foaming around) highlighting the power of the natural element and the Roman construction.[18]

Both of these enduring monuments were constructed on the *decumanus* of Rimini and thus are directly related to each other. This central road also passes over the *Fosse Patara*, which was a canal type structure that could have been used to provide water for the various amenities in the centre of the town.[19] Movement through the town, then, is defined by the act of crossing water. Moreover, this has been entrenched into the urban experience by considerable imperial investment by different Emperors.

2.4.5 Pisa (Pisae)

Mainly known for its later medieval history, the town of Pisa was also the location of an Imperial Roman colony. On the east coast of Italy, the town is situated on the right bank of the Arno but in a large delta area where both this river and the Serchio empty into the sea. Keppie (1983, p. 173) notes that, lagoons, lakes and canals have been found in such profusion, Pisae could easily be envisaged as a Tyrrhenian Venice. Indeed, it seems the hydrological characteristics of the area were so dynamic in the Roman period, that there could have even been a point of confluence with the Serchio (Benvenuti, et al., 2006, p. 872). In addition, there is ample evidence to suggest that, throughout the entire Roman period, the settlement would have been subjected to frequent catastrophic floods (Benvenuti, et al., 2006, p. 874). These fluvial events were so powerful that they shifted the course of the river Arno, forcing it into different channels.

The environmental setting of ancient Pisae seems to mirror the previous examples, but the comparative power of the rivers involved meant an even greater challenge for sustained settlement. The usefulness of the location as a port is, of course, a primary reason to maintain the town. However, the nature of the fluvial activity meant that this economic activity was often fraught with danger, as evidenced by the numerous shipwrecks that have been discovered in the area (Slayman & Lattanzi, 1999; Benvenuti, et al., 2006, p. 875). Despite this it seems that the town experienced marked vitality in the Roman period and

[18] It is worth noting that the natural course of the river has been diverted. As such, modern pictures do not give an accurate gauge of the potential violence of the flow.
[19] One is reminded of the various rituals regarding water and shop keepers – sprinkling on food before sale (Edlund-Berry, 2006).

was the subject of patronage from Augustus, Nero and possibly Hadrian. The latter two both seem to play on the watery theme with the "*Bagno di Nerone*" and a Hadrianic spa (Pompeiano, 1999, p. 227). While poor survival limits what we can say about the Roman town, the natural environment provides another example of dynamic waterscapes correlating with important settlements in Italy.

2.4.6 Benevento (*Beneventum*)

The town of Beneventum is often described as one of the most prosperous settlements within Roman Italy. Located at the junction of the two principal arms of the Via Appia, it would stand to reason that the settlement would gain prominence. Indeed, it was an obligatory point of passage for various emperors (or other members of the Italian elite) travelling to southern Italy or the eastern provinces. Patterson (2006, p. 110) notes how the classical sources inform us of visits from Augustus, Tiberius, Nero, Vespasian and Domitian [20] . The monumental works of Hadrian and Trajan are also visible in Beneventum, the arch of Trajan being one of the best preserved monuments of its kind. While many historians and archaeologists emphasise the significance of the roads, Beneventum was also located in a tangled web of rivers (see fig. 6). The town was surrounded by water, located on the confluence of the Calore Irpino and the Sabato, and required five different bridges to facilitate access to the central areas. Obviously this would have granted the town another dimension of economic connectivity. Yet, Beneventum is also in the same region as the aforementioned Minturnae; the two are linked directly by the Via Appia and this may be of significance in terms of the ideas and interpretations forwarded in this thesis.

The arch of Trajan is the most prominent monument still extant in the town. The arch celebrates the completion of the Via Traiana and the emperors *alimentaria* scheme (the latter of which is evidenced on the arch reliefs). However, in the central reliefs of the country-facing side of the arch, there are two distinct representations of reclining river gods. The identification of these two personifications has been far from definite, but the general consensus is that they represent two rivers in the East, the Tigris and Euphrates, or the Danube and the Euphrates. Of course, this is a logical interpretation considering

[20] Suet. *Aug*. 97-8, Tac. *Ann*, 15,34, *Cass*. *Dio*. 65. 9. 3.

Trajan's military achievements at the time of construction. Merill (1901, p. 51) debated that they should, in fact, be interpreted as smaller tributary streams; he suggests the Tibiscus and Alutus, which were rivers that surrounded Trajan's base of operations in Dacia. Merill (1901, p. 51) also notes how the Danube is probably alluded to by the representation of a bridge in the background (referencing the bridge of Apollodorus of Damascus in Dacia).

These are interesting interpretations, but they have been divorced from any real relationship to the surroundings of the arch. The road leading through the arch (the *Via Traiana*) would have probably crossed a small confluence before entering the city and meeting the structure. The depictions of river deities are on the country facing side of the monument and so they would have been seen after crossing the bridge when entering Beneventum. Furthermore, the *Via Appia* (joined to the *Traiana*) crosses the Ponte Leprosa on the other side of town, near the main confluence of the Irpino Calore and Sabato. So, either side of the monument, the road is associated with confluences. As a result, while Trajan is undoubtedly alluding to foreign conquest on this monument, it seems in keeping with the overall theme of the reliefs to highlight this local link, and therefore the effect of his victory on Italy. It would appear rather naïve to suggest that people in Beneventum would look at the representation of a river confluence and not think of their own similar surroundings.[21] This layered reference to rivers could further the overall goals of Trajan, explaining a universal Roman rule which he has extended throughout Dacia and beyond, as well as symbolically entrenching the idea of Beneventum as the access point to the East.

2.4.7 Other towns

Lucca is not far from, the aforementioned, Pisa and thus shares proximity to the Serchio River. The previously stated violence of the Serchio in the Roman period makes the siting of Lucca interesting; it is situated on an island within the river (Keppie, 1983, p. 174). Firenze (Florentia) is intimately related to the nearby river Arno. The main medieval bridge of the town (the Ponte Vecchio) is now a famous tourist destination, but it would have had a significant Roman predecessor (Hardie, 1965). The settlement received a

[21]Work of archaeologists such as Tilley (1994) and Petts (1998) emphasize the importance of fluidity in the experience of landscape and monuments. A monument such as the arch could have many different audiences, with different allusions to cater for these.

colony from Augustus and was located in the waterlogged Gandolfino plain, which would have required extensive reclamation before any centuriated landscape could have been created (Keppie, 1983, p. 175). Bologna (*Bononia*) lies between the Savenna and Reno rivers and again received patronage in the Imperial age. There is little archaeological evidence available owing to continual building on this site. There is, however, epigraphic evidence that testifies the construction of an Augustan period bathhouse (Keppie, 1983, p. 188).

2.5 Summary

A wide-array of sources have been consulted to gain an understanding of Roman beliefs pertaining to bridges, confluences and islands. These elements appear to have been important on various levels and they are often found together. The case of Rome is a particularly interesting example, with the Tiber Island playing a key role in the symbolic heart of the city. Additionally, the wider Italian examples show that waterscapes could have been a key element of other towns or, indeed, notable villas. However, the purpose of the section is not necessarily to be conclusive; rather, it is to highlight that the beliefs of Roman Italy are, in many ways, very distant from our own modern perspective. Indeed, in a general sense, there is actually a great deal in common with the traditions of temperate Europe outlined earlier. This means that even if one emphasises a heavy-handed colonial influence in the provinces, there is still ample scope to interpret wider meaning for these phenomena of the waterscape. Moreover, if one champions local influence there may have been a dynamic mixing of traditions pertaining to these areas.

2.6 Evidence from towns of Roman Britain: Case Studies

The work of Rogers (2008) has already highlighted how, like the Italian examples noted above, many of the towns of Roman Britain were situated close to water (perhaps too close by modern standards). The traditions and beliefs associated with water in the prehistory of temperate Europe mean that any such interaction between the town and environment could have had a profound effect on the conception of the settlement. The mixing of these local associations and incoming continental ideas would also surely have been a factor. As outlined at the start of this chapter, the special nature of confluences, islands and bridges

(and their interaction) is well established in Britain before the Roman period. As such, their appearance in conjunction with prominent towns warrants further scrutiny.

2.6.1 London (*Londinium*)

With the above ideas in mind, a closer look at Roman London can provide some tangible evidence for this approach. Underlying the modern city, Londinium was placed within a landscape fundamentally defined by water. In this area, the Thames is known to have been joined by at least three minor rivers – the Walbrook, the Fleet and the Lorteburn. In addition, one must note how the Southwark area was formally composed of many low lying islands. Added to this, the mouth of the Fleet and Walbrook would have been characterised by a number of eyots. Tidal and broader (at over 300 metres during high tide) than it is today the Thames at this locality will have been a striking setting. As a result, Roman Londinium possessed all of the water features to which this chapter has given prominence.

It is often said that Londinium was a new site built for commercial purposes with no origin in the Iron Age (Todd, 1989, p. 79; Perring, 1991, p. 1; Rowsome, 1998, p. 35). This is a somewhat misleading description as, while no recognisable 'town' like settlement was in existence, there was certainly activity on the site dating back to the Bronze Age. By the first century A.D., this location on the Thames was seemingly a point on the border of around five tribal territories; therefore its meaning does not necessarily need to be quantified in terms of structural remains. The clearest archaeological evidence from prehistory is in the form of structured deposits relating to the water of the Thames and the marshy islands of Southwark. The amount of human skulls and metal finds (Bradley & Gordon, 1988) recovered from the Thames seems to denote ritual meaning for the area. Furthermore, Southwark also harbours evidence of Late Bronze Age and Iron Age activity; close to the later Roman bridging point a ring ditch was discovered in association with the cremations of at least eight children or juveniles (Heard, et al., 1990, p. 610; Brigham, 2001a, p. 10). There is little evidence of *in situ* burning, but the numerous spreads of charcoal and cremated bone suggest nearby pyres (Brigham, 2001a, p. 10). In addition, an area of 'compact silty loam' may represent the last remains of a mound covering this

central feature. Later Iron Age evidence is also apparent, with an unusual inhumation burial found at 124 Borough High-street (Heard, et al., 1990, p. 610). The position of the body, with legs drawn apart and head raised, seems to be a carefully structured arrangement. Unusual positioning of the human body in burials has often been seen as evidence of heightened significance (Lambot, 1998).

The main Roman site of London was located on the opposite shore of the Thames. However, this island area of Southwark was certainly addressed by reclamation, water channelling, Roman building and occupation, with a range of evidence now known that is relevant for this study. Excavations at Tabard Square, Long Lane, have uncovered a large religious precinct immediately adjacent to the southern island of Southwark (Durrani, 2004). Furthermore, there is a potential religious function for the monumental structures at Winchester Palace (Rogers, 2011b, p. 213). This is supplemented by interesting finds, including a marble figure of Neptune, limestone figures of a Genius, and a native hunter god (Merrifield, 1983, p. 188).The figure of Neptune is also relatively early in date, possibly being a first century example of sculpture. In addition, an inscribed altar, part of a tombstone and the lid to a funerary chest were also uncovered (Heard, et al., 1990, p. 617). These were found under the Southwark Cathedral which has a long history and could potentially be an example of a Christian place of worship directly overlaying an earlier Roman religious structure. Finally, there are also numerous Roman wells (which will be discussed in more detail in the next chapter) that were associated with extraordinary metal finds, unusual animal bone assemblages and complete pottery vessels (Merrifield, 1987; Beasley, 2006; Seeley & Wardle, 2009).The evidence of these wells and the Neptune sculpture serve to illustrate the watery associations of Southwark throughout the Roman period.

The Roman Thames bridge seemingly had three incarnations (representing different phases of the structure), but they all occupied the same area close to the modern London Bridge (Brigham, 2001b, p. 30). The early evidence for this ancient crossing was found as a result of the nineteenth century London Bridge re-building project. The work of Smith (1841), to both retrieve and catalogue the evidence dredged up in the modern building process, has left us with a significant record of archaeological material associated with the ancient crossing. Most of the work regarding this structure has centred on the practicalities of construction (Milne, 1985). However, Smith noted a series of wooden piles and a

concentration of Roman coins associated with the apparent supporting structures of the bridge. Rhodes (1991) extrapolated this antiquarian evidence and produced a reconstruction of the likely site of deposition along the ancient bridge. He notes how this scene bears an uncanny resemblance to the archaeological evidence recorded at the crossing of the Liris at Minturnae, suggesting the change in depth and location of a shrine being potential reasons for the deposits of London.

It seems the acknowledgement of a Roman bridge to have ritual meaning is, in many cases, the end point for analysis. In fact, the interpretation of bridge deposits seems to largely isolate the phenomenon, never really considering what this type of activity could be referencing in the wider landscape. Rhodes (1991, p. 184) offers the location of a shrine as the *reason* for the coin deposits. But what is the reason for the shrine at this point? Curiously the change of water depth is offered as an alternative to the shrine, when it is surely feasible to see this natural reference point as the beginning of any ritual. Moreover, this point on the bridge would seem to be a place where both the complete waterscape and the urban constructions either side of the river could be appreciated by the human viewer. In terms of the natural vista, one would surely have been able to appreciate the confluence of all three smaller watercourses (Fleet, Walbrook and Lorteburn) with the larger Thames.

Furthermore, increasingly our picture of the Thames waterfront in the Roman period is one characterised by monumental constructions. Rogers (2011b) has argued how the port structures of London were far more than simply practical constructions. He alludes to how the timber quay at the St Magnus House/New Fresh Wharf site was a monumental construction with five tiers of large oak beams held in positions by a framework of braces and piles (Miller, et al., 1986, p. 8). Of course, such a robust structure would have been required to accommodate the commercial traffic of a settlement on the scale of Roman London. However, negotiating this deep interaction with the local waterscape could have been a complex dimension of these more visible economic activities. This idea of sanctioning such activity could be reflected in the find of over 400 unused samian vessels including cups, bowls and lion head *mortaria* in the fill of the aforementioned building (Miller, et al., 1986, p. 49).

Another monumental feature that would have been apparent from the bridge was the complex at the site of modern Cannon Street station. The archaeological evidence relates to numerous components of different dates including some kind of pool and temple structure

(Milne, 1996). This is coupled with the nearby Huggin Hill bath complex and the later 'Allectan Palace' development. At the latter, the evidence for free standing structures, such as a monumental arch relating to various deities, reflects the importance of the waterfront (Hill, et al., 1980; Williams, 1993). It has been noted that the first structure in this area was a temple of similar size and layout to the example dedicated to Sulis Minerva in Bath. The entrance to this enclosure would have been facing east (towards the *forum*) but the monumental riverside facade made it a presence on the waterfront (Bateman, 1998, p. 49). This would have created a link towards the *forum* from the waterscape, the latter of which could feasibly have been part of veneration in the complex. Thus the area lining the Thames had a potent mix of religious and ideological meaning, which would have been central to the conception of the town.

All of these disparate elements of the waterscape/waterfront could feasibly have been appreciated from the bridge (see fig. 7); even if this was simply a matter of association from one's own knowledge of the town (so even if the Fleet could not be directly seen, people would have known when looking upstream that it joined the flow of the Thames). However, there is also the aforementioned straight line perspective that the bridge would have given the individual. Some 300 metres north of the bridge, the road continues straight to the Roman *forum* and *basilica*. These constructions were truly colossal in their scale, the second incarnation of the *basilica* was 52.5 metres wide and 167 metres long (Marsden, 1987, p. 38). However, the building work also involved the deliberate dumping of around 20,000 cubic metres of materials to elevate the structure (Marsden, 1987, p. 39). This would have been a gargantuan undertaking and has been portrayed as an effort to dominate the surrounding landscape. Creighton (2006, p. 106) , for instance, notes how intervisibility between the *forum* and bridge could have emphasised official procession; with ceremonial crossing symbolically re-conquering the territory. However, it seems plausible to suggest such a procession could be less about aggressive domination of the landscape, and more related to an exhibition of acceptance and legitimacy. This spectacle could be more about producing a functional hybrid identity (respected by the majority), rather than simply repeatedly proclaiming the victory of Rome.

With this in mind, when we consider this bridge its special nature cannot be limited to simply acknowledging the mere act of ritual deposition. Rather, it is what this represents on a wider scale. The act of ritual deposition implies a moment of stillness and reflection

(for the participant) on the bridge; an individual must prepare and execute the physical action, but also contemplate the reason for it. The latter undertaking would surely centre on the long-held importance of the waterscape. The former, hints at a moment when one would appreciate the wider visual associations of the bridge over this exceptionally broad expanse. As such, the experience of the bridge potentially creates ideological unity; it links the traditional areas of Iron Age significance such as the Walbrook and Southwark into the Roman scenography of the monumental waterfronts and the nearby *forum*. Indeed, even if an individual is solely concerned with the waterscape during the act of ritual deposition, the subsequent movement towards the monumental Roman town would hybridise the experience.

However, the Thames and its bridge are just one part of a dynamic waterscape within the town. The Walbrook is associated with a high volume of skull finds that have a broad date range, possibly stemming back to the Bronze Age (Rogers, 2011a, p. 70). Moreover, the fact that many represent young males, and appear to have been significantly altered (had mandibles removed) suggests prehistoric ritual activity (Marsh & West, 1981; Bradley & Gordon, 1988).[22] The special nature of this watercourse seems to endure throughout the Roman period. The third century *mithraeum* (Shepherd, 1998) is thought to be one of a cluster of temples that would have been present in the Middle Walbrook valley (near modern Bucklesbury House); demarcating a religious presence up to Late Antiquity. A sculpture of a river god was recovered from this area; according to Toynbee (1962, Plate 35, no. 29), the style suggests it was made in the reign of Antoninus Pius or Hadrian. Added to this, charred remains of arcaded timber panelling and deposition of a face urn were also recovered from the area (Wilmott, 1991). In addition, Henig (1998, p. 232) has suggested a shrine of the Dioscuri and Bird (1996) has shown evidence for cult worship of other exotic deities such as Sabazios. The worship of both Mithras and Sabazios often involved water, with snake imagery linking to more traditional deities like Aesculapius (Bird, 1996, p. 120). Furthermore, a great deal of metalwork has been recovered from the Middle Walbrook area, with a strong preponderance of dress/personal items deposited throughout the first and second centuries (Crummy & Pohl, 2008, p. 212). Merrifield and

[22] There have been challenges to this interpretation – most notably Knüsel & Carr (1995) – but there still remains a general consensus that many skulls discovered from the Walbrook represent ritual deposition.

Hall (2008) have seen this as evidence for a continuation of the aforementioned votive tradition.

It is important to note that this area required extensive and continuous land reclamation during the Roman period; meaning that the *mithraeum* would have been built on rather insecure ground (Rogers, 2011a, p. 212). In addition, the Middle Walbrook represents the tidal head of the watercourse, so it would have been an area where there was visible difference in flow. Progressive reclamation of the area could have led to braiding of the river channel and the creation of island type areas; it is possible that the *mithraeum* itself was bounded either side by water. Intriguingly, this zone of activity is framed by the creation of two Roman bridges over the Walbrook (fig. 8). Merrifield and Hall (2008) have connected these structures with the on-going ritual activity of the area. They portray the role of the bridge as reactive – people would have made offerings to placate the deities of the river (perhaps to prevent destructive tidal forces). Yet, as there is an established history of deposition/veneration in this area in the Pre–Roman period, it would make more sense if we conceive the bridge as an active structure, manipulating and possibly enhancing the perspective of this meaning-laden environment.

This interpretation is reinforced by the two roads beyond their crossing of the Walbrook. Their passage over the River Fleet also coincides with key features of that watercourse (fig. 8). The northerly road crossed the river at the point where the channel widens, which again would seem to be a tidal head; the more southerly road would have crossed between two eyots that had formed in the mouth of the Fleet. Again these points represent places where the flow of water would have been visibly affected. Added to this, Crummy and Pohl (Crummy & Pohl, 2008, p. 219) have highlighted a series of possible structured depositions involving toilet instruments, similar to those found in the Middle Walbrook, close to a jetty on the southern eyot of the Fleet. Such small items are known to have been used as *ex votos*, and their good condition suggests they were seemingly not discarded as rubbish (Crummy & Pohl, 2008, p. 218). Furthermore, there is also a later construction of a large octagonal structure, thought to be a temple, on a hilltop overlooking this area of the river (Crummy & Pohl, 2008, p. 219). It seems possible then to consider these bridges as structures that are enhancing the meaning of an area already conceived of in special terms. Indeed, as with the Thames bridge, the crossing points of the Fleet and Walbrook could have played a significant role in the ideological unity of the settlement.

It has often been highlighted how the street plan of Roman London is uneven west of the Walbrook (Perring, 1991); something which has been touted as reflective of the mixed population of London (Millett, 1996, p. 36). However, a contributory factor to this arrangement could have been a conscious decision to build these bridges at significant points, as part of an overall ideological scheme. As a result of this, the primary routes into the centre of the settlement would have woven the prehistoric associations with water into the emerging monumental scheme. In this regard, it is also worth noting that these two roads would have been littered with some of the most impressive buildings of the town. Blagg (1996, p. 45) has made reference to this, pointing out that the 'Allectan Palace' and the Huggin Hill bathhouse would have been seen on the southerly road; while the Cheapside Baths and Amphitheatre could have been readily apparent on the more northerly route. We cannot underestimate the powerful effect that such a combined experience could have had on an individual. Indeed, it is possible to see how this could create a sense of legitimacy for a new foundation such as Londinium, with architectural elements of the town intertwining themselves within the historical ethnoscape of the region.

2.6.2 Canterbury (*Durovernum*)

Wacher is among those who have cited Canterbury as the first *civitas* capital in Britannia (Wacher, 1995, p. 187). With this assertion comes a host of problematic inferences that have characterised the understanding of the area. Foremost among these is a sense that the south east of Britain was more receptive to an incoming Roman 'identity package' than other areas of the country. The writings of Caesar have helped to crystallise this way of thinking, with his observations regarding the similarities between those in the south east and their Gallic contemporaries across the channel; as opposed to the uncouth populace that could be found further inland (Caes. *Gal*. 5.14). Of course, Caesar's minimal forays outside the south of the country do not really give us a sense of reassurance about the accuracy of such statements. In many ways, these observations are representative of possible bias in the Roman world view; the further north one gets, the more alien life will become. To an extent, the core periphery models of the last thirty years also promote this idea of a more continental, more Romanised, south east region. It stands to reason that the Canterbury area probably had increased connectivity to the continent. However, if

anything, this should heighten the complexity of settlement within the Stour valley; rather than making it seem more familiar, or more 'Roman'.

Traditional discourse has interpreted Canterbury's relationship to the Stour as, almost entirely, practical. The river would have been navigable up to Roman period settlement; thus, in addition to easier road access, the valley bottom site was a logical location to create a regional centre. Indeed, the role of Canterbury as a key strategic point, leading to the principal military supply base at Richborough, is a primary part of the interpretation of both Wacher (1995, p. 191) and Frere (1967, p. 22). Yet, while military motives seem to proliferate historical accounts of Roman Kent, the story of Canterbury's development would appear to be characterised more by local factors.

The recent discovery of a large Iron Age settlement on the site of the University of Kent (directly overlooking the Stour valley and modern city of Canterbury) is adding to our picture of Iron Age occupation of this landscape. Taken alongside the hillfort site at Bigbury, there are now several known settlements that would have been close to the eventual site of the Roman town at Canterbury. In light of this, the river valley location becomes conspicuous by its potential as a central place. This interpretation is furthered by the unusual characteristics of the Stour at this point. The site of Canterbury coincides with rather dramatic braiding of the river, with the creation of a large island feature (in addition to smaller eyots), that remains today. These are the type of conditions that have been emphasised, in this chapter, as being fundamentally significant for people in the Iron Age.

There certainly appears to have been significant occupation of this landscape, and some scholars have suggested this consisted of an organised *oppidum* (Wacher, 1995, p. 190). However, this interpretation may owe something to the consensus around viewing prehistoric settlements as proto-urban stages of later Roman towns (Haselgrove, 1989, p. 10). One thing that is easier to discern is the central place of the braiding Stour within the narrative of Iron Age and Roman occupation of the area (see fig. 9). One of the crossing points of the river, close to modern Whitehall road (at the London Gate), coincided with evidence of a number of buildings, pits, coins and cremation burials (Weekes & Seary, 2011, p. 6). There is little substantive evidence for the ritual meaning of this crossing point, but it would seem logical considering the fundamental importance it held in traversing the valley landscape. As with London, conditions were right here to create a bridge but such attributes may well have led to veneration in the past. The on-going analysis of the

Westgate Garden area of modern Canterbury may further such interpretations. Already this has suggested a prehistoric presence just along the Stour at Toddler's Cove.

Across the other side of the Stour, underlying the central areas of the Roman town, evidence has been found of a notable triple ditched enclosure with associated roundhouses (Blockley, et al., 1995, p. 37). Rather than serving a defensive function, these ditch features have been interpreted as regulating movement within a scattered settlement (Blockley, et al., 1995, p. 37). A number of coin moulds were also found during the excavation of this site; suggesting either a mint, or sophisticated metalworking, happening in the vicinity (Blockley, et al., 1995, p. 9). Moreover, there has also been a suggestion that the Roman temple precinct, close to the bank of the river, was preceded by an Iron Age religious feature of some sort (Wacher, 1995, p. 193). Movement between these two areas of occupation, on the east and west banks of the Stour, could have been a key feature of settlement. Indeed, the intervening space between them would have been the marshy, flood prone, island zone, which had been formed by the braiding river. These attributes may have encouraged use of the place as a meeting point. Coming from either of the high ground settlements, people would probably have had to move through the braiding zone before reaching any religious focal point on the east side of the Stour. Movement across the waterscape may have been a key feature of ceremonial processions, as Creighton suggests in regards to Verulamium (Creighton, 2006, pp. 124-130).

This liminal landscape is incorporated completely into the Roman town, despite notable practical drawbacks. The western and south-western parts of the town, for example, were particularly subject to flood events, becoming uninhabitable during the third century (Rogers, 2008, p. 47). Excavations at St. Mildred's Tannery have uncovered a number of Roman era buildings in this flood prone area, but very little in the way of definitive structure types. One of the more intriguing of these is a large aisled building that was located close to the eastern ford of the river (Pratt, 2009, p. 231). Its function is hard to discern, but it was sizeable and appears to show signs of continued use when nearby buildings were being abandoned due to flooding (Pratt, 2009, p. 232). While it does not necessarily fit the profile of a temple, it is close to the river and the central religious area of the town. There is a possibility that this structure could be linked to the conception of the local waterscape. On the western crossing, close to the Iron Age activity mentioned above,

a small bathhouse has been discovered; its meaning will be discussed in a later chapter, but we should be wary of separating it from the local waterscape.

These points notwithstanding, the Roman town appears to embrace much of the same logic discussed in relation to the Iron Age settlement. The main road to London is postulated to have maintained an alignment with the previous local track-way, exiting via the London Gate. In addition to the main road (from the Westgate), the settlement was characterised by the act of moving through the Stour's influence. The monumental features of the Roman town (the *forum*, temple precinct, public bathhouse and theatre) are built in a cluster on the eastern side of the river (fig. 9). In many ways, their presence just amplifies the importance of crossing water, and how that act is pivotal to the overall experience of Canterbury. The maintenance of fords may also have meant the visual spectacle of wet footprints processing into these central areas, further underlining the presence of nearby water.

The discovery of the Iron Age settlement on the University grounds may also add to this interpretation. If one sees this newly discovered area of occupation as intrinsically linked to the lowland site at Canterbury, then movement between the sites would have been through modern St. Dunstan's; excavation over a number of years has revealed extensive Roman period burial in this area (Weekes, 2011). While such activity is common outside Roman towns, this side of the town appears to have been far more popular than the other external points of the settlement. Part of this is inevitably the importance of the road to London, but there is also a possibility that this continued activity is fossilising the importance of the route to the higher ground. The ancestral importance of this route could have made it a particularly suitable place to bury the dead. This interpretation would further entrench the Iron Age sense of space within the experience of Roman Canterbury.

2.6.3 Lincoln (*Lindum Colonia*)

Lincoln was originally established as a legionary fortress in AD 48 and by around AD 70 – 80 it had gained the status of *colonia* (Wacher, 1995, p. 132). There is a perception that the *coloniae* of the provinces were created consciously as archetypal Roman towns (Wacher, 1995, p. 17). As a result, this has been seen as a reason to analyse these settlements in predominantly tactical and economic terms; the more 'Roman', the more likely a modern

rationale would fit. In the case of Lincoln, the settlement was originally located on a hill, so was defensible; it was placed on a major glacial gap, a vital supply route into the north; it had links to the river network through the Witham, so could be a centre for trade. These are good practical reasons for the location of such a settlement (and all undoubtedly played a part in the siting of Lincoln), but the landscape of this area cannot be fully explained in practical terms. Indeed, the Roman name of Lindum roughly translates as 'Dark Pool' which suggests an important symbolic link with the nearby Brayford Pool (Rivet & Smith, 1979, pp. 392-393).

The Witham is steeped in meaning throughout prehistory. It has already been noted how prominent causeway features at Fiskerton, Washingborough and Brigg are examples of the special reverence afforded to the local waterscape. Furthermore, there are numerous Bronze Age barrows that are similarly linked to the flow of this river. This illustrates a long-lived, but changing, relationship to the Witham within the larger landscape (May, 1976; May, 1988; Stocker & Everson, 2003, p. 280). It may also be the source of the tribal name the Corieltauvi, which has been interpreted as "the land of the people of many rivers" (Tomlin, 1983; Breeze, 2002). Combine this with the fact that deposits at Fiskerton, and surrounding areas, continue into the Roman period and one must start to consider a more nuanced approach to the siting of Lincoln.

Lincoln is located on the banks of the river Witham at a confluence with the Till; within this area the river channel widens to form the Brayford pool (see fig. 10). In this body of water, evidence has been found of Iron Age occupation on a few sandy islands (Darling & Jones, 1988; Steane, et al., 2001). The original Roman fortress (and subsequent *colonia*) was built on a hill overlooking this watery site, but within a few years occupation had extended down towards the Pool. The situation in a glacial gap meant that establishing a settlement was problematic – the low-lying valley was prone to flooding and the clay hillside was riddled with springs. Yet, in many ways, this combination of features meant the site was a nodal point in the wider waterscape. The Brayford Pool was not just the joining of the Till and Witham, but also the fusion of spring water from the steep slope. Added to this, the Pool was the 'dark heart' of a larger marshy and liminal landscape, all of which could be witnessed from the high ground of the later fortress.

Perhaps unsurprisingly, the main evidence of Iron Age occupation has been located on islands in the centre of the Brayford Pool (Jones & Stocker, 2003, p. 26). This consists of a

number of roundhouse features that, considering their liminal location, were probably the centre of ritual activity. While this does not amount to substantial occupation of the landscape, the structures may indicate the wider importance of Lincoln as a meeting place. These dwellings are paralleled by small-scale activity on the nearby hilltop (where the fortress was built) that will be discussed further in the next chapter. It is possible that movement (or procession?) between the low and high ground could have been part of the veneration of the waterscape.

Moving into the Roman period a bridge (the Wigford Causeway) was built across the islands, linking both shores of the Witham (fig. 11). The aforementioned tradition of ritual causeways in the immediate landscape surely implies this is far more than a practical structure in the town. Jones (2003a, p. 97) has declared that this waterfront is a key place to consider when exploring the issues of 'Romanisation' in Britain. He suggests that the potential domination of this ritual site within the Brayford Pool could be a strong ideological statement made on the part of the colonising Roman force. This is quantified, in his view, by the free role afforded to Lincoln as a *colonia* rather than civitas capital; it could have been located anywhere because Leicester was the heart of the territory. While this type of aggressive 'post-colonial' discourse can be compelling, it perhaps undermines the strength of local beliefs and the extent to which they could mix with incoming associations. Indeed, rather than replacing and dominating the local beliefs, Roman Lincoln could have been more defined by a sense of their amplification.

It is tempting to view the Wigford causeway as an imposition on a religious landscape; giving it the same value as a modern overpass constructed in a scenic rural landscape. In contrast, one could see the causeway as an active addition to this meaning-laden waterscape. The bridge would have maintained a sense of liminality, being part of the transition between shorelines. However, as previously mentioned, it would allow people to dwell and appreciate the complete scope and breadth of the Witham. Furthermore, the way in which the Lower City at Lincoln expanded towards the waterfront is also an interesting part of the equation. While the Upper City was the original site of the *colonia*, and possessed the *forum*, the lower part of the town essentially became its monumental heart (Jones, 2003a, p. 89). Within this area, temples, bathhouses and a prominent fountain (potentially part of a temple complex) all line the main passage of Ermine street after it has crossed the river. The bridge forms the first stage in this transition into the central urban

space, and ties the liminal element of crossing water into the overarching experience of the town. From an external, strategic, point of view this could physically legitimise the new town within the landscape. It also places the urban development of Lincoln within a framework of development spanning back into prehistory. Monumentalisation of ritual sites in the late Iron Age is not uncommon, so this development of Lincoln would not necessarily have been viewed as something alien to the local populace.

2.6.4 Leicester (*Ratae Corieltauvorum*)

At Leicester we see a similar pattern, with Iron Age settlement in the St Nicholas Circle area on the east bank of the River Soar (Cooper & Buckley, 2003, p. 31). Early excavations at the Jewry Wall site uncovered significant pre-Roman pottery (Kenyon, 1948, p. 24) and elsewhere (Bath Lane, St. Nicholas and the West Bridge area of town) other elements of settlement such as fragments of flan trays used in preparation of Iron Age coin blanks (Clay & Pollard, 1994, p. 72). Evidence of Iron Age pits and gullies in the St Nicholas Circle area and at 51 Thornton Lane suggest the presence of roundhouses (Rogers, 2008: diagram 32). Certain finds (especially the imported pottery) demonstrate that the settlement already had exceptional importance in the Late Iron Age and so its progression into a Roman *civitas* capital was a natural evolution. The central St. Nicholas Circle area eventually became the site for the monumental heart of the Roman town; the *forum* and the Jewry Wall baths are both notable features (see fig. 12). Furthermore, the one confirmed temple of the town is found in this zone, close to the river (Wacher, 1995, p. 359). This has been loosely interpreted as a *mithraeum* and thus, as with the aforementioned Walbrook example, one can potentially link this to water veneration. However, some writers are unconvinced by this interpretation and feel it could equally be a shrine to a deity such as Bacchus (Henig, 1984, p. 95). This potentially opens up the interpretation to any number of local deities that might be linked to the nearby water.

At this point the Soar (like the Stour in Canterbury) braids to form an island. There has been a suggestion that on this small strip of land, between the two arms of the river, a fortlet was established (Clay and Pollard, 1994). Yet, evidence for this is really limited to a length of military-style ditch and is not necessarily conclusive evidence of sustained occupation of this area by the Roman army, rather it may be defining a significant

enclosure of some sort (Cooper & Buckley, 2003, p. 33). Regardless, the bridging of this area would certainly have formed the western entrance/exit to the settlement and, therefore, would be an unavoidable part of the urban experience linking the waterscape to the aforementioned central features.

2.6.5 Cirencester (*Corinium*)

Corinium was the third largest walled town area in Roman Britain. However, its location in relation to the River Churn, the Daglingworth Brook, and the surrounding hills, is distinctly impractical. Reece (2003, p. 277) notes, intriguingly, how the town is located directly in the path of floodwaters coming down the valleys at a bottleneck (see fig. 13). This rather illogical site choice is further undermined by the lack of good building ground; certainly in terms of constructing a town as big as Corinium was to become. The pre-Roman site would have consisted of a narrow island, with a gravel spine, bounded by the two watercourses, which met to form a marshy swamp at Watermoor (Broxton & Reece, 2011, p. 5). Clearly extensive reclamation would have been required. It has been suggested that the Churn and the Daglingworth Brook would have both been canalised, and separated to flow around the town, before meeting south-west of the settlement (Broxton & Reece, 2011, p. 5). Any advantage for defence would certainly have been outweighed by the continuous effort required to stem floodwaters, especially during the winter months.

In conjunction with the above, Reece (2003) has highlighted how Ermine Street takes two notable deviations on its immediate approach to Cirencester. The first of these (when the road crosses the River Thames) could be explained as practical; a suitable crossing point was selected. After this, the road returns to the original projected course, which would have intercepted Fosse Way at a, seemingly ideal, site to the north-east of later Corinium. However, around five miles from the town the road deviates again into the flood prone area where the town was eventually built (see fig. 14). In addition, the other primary road approaches from the south-west and curves in a highly irregular manner before entering the town. As the whole island area was gridded with no diversions, it has been suggested that the only reason for this road taking such a path would be if the straight route was blocked on exit (Reece, 2003, p. 278). The only other notable landscape features that could be in the path of the best-fit courses of Ermine Street and Fosse Way are the Tar Barrows.

Creighton (2006) has acknowledged the possibility that the avoidance of the Tar barrows was a respectful acknowledgement, potentially legitimising the new settlement by linking it to ancestral symbols of power. Taking this further, while it is logical that the Tar Barrows could have played a pivotal role in the positioning of Cirencester, they may be just one part of a wider 'special' landscape. With all that we have considered above, the siting of the town on this island form could conceivably be just as potent symbolically as respect for the nearby burials. The recovery of a relief depicting a reclining river deity is further evidence of a mixing of traditions. Toynbee (1962, Plate 37, no. 31) describes this particular sculpture as stemming "from a classical source, but the spirit and expression reveal a Celtic carver". This is one example of how the Roman symbolism of water is being adopted and adapted by the northern European hand, combining the associations inherent in both traditions.

In general, the sculptural remains from Cirencester (and much of the Cotswolds) are far more copious than those found in other areas of Britain. One of the most prolific figures depicted in such work seems to be that of Mercury. He is generally seen as one of the most popular deities in both Gaul and Roman Britain (Webster, 1986). However, the eight separate depictions of the god found in Corinium perhaps deserve close examination. The primary interpretation of Mercury is, as his name implies, as a deity of commerce. Webster (1986) sees this as the root of his popularity in the northern provinces; commerce had increased after Imperial conquest and, according to Webster, there was no real native deity overseeing this 'Roman' activity.

However, Mercury was a highly adaptable deity who shared many attributes with other Roman and temperate European gods. Holland (1961) makes the assertion that the ancient god Janus sometimes merged with the idea of Mercury/Hermes; the former also being presented with the *pasestos*. This is due to the less emphasised characteristics of Mercury as a god associated with gateways, bridges and other forms of transition. It is also worth noting that as the understanding of Janus became more blurred by the Imperial period, these transitory places/objects of worship could have been further identified with Mercury. Emphasising these Janus-like characteristics could also cast new light on the popularity of Mercury in the northern provinces.

Scholars have often interpreted the numerous occurrences of Mercury in Corinium as part of its mercantile strength; both Wacher (1995, p. 312) and Salway (1981, p. 584), for

instance, emphasise commerce as a particular focus at the site. The transitional and liminal nature of the topography perhaps also links with the other associations of the deity outlined above (e.g. places like bridges and gateways). The most impressive sculpture of Mercury recovered from Corinium happens to have been found at the Bath Gate (Wacher & Pamment-Salvatore, 1998, p. 51). As a result, this sculpture is associated with very Janus-like provenance, being part of a gate/bridge entrance. Indeed, it echoes the relationship Holland (1961) asserts between the arches and bridges in Rimini. The acknowledgement of Mercury at this point seems to emphasise his liminal characteristics.[23] Also of interest is that a statuette, presumed to be Mercury, was found in the Watermoor area of the town (Henig, 1993: Plate 20). Therefore, it may have been situated towards the Silchester Gate and river confluence.

Added to this, the deviations of the roads can also be understood in their relationship to the river Churn and Daglingworth Brook. The deviation of Ermine Street from the south-east meant that it required potentially two bridges/fords to enter the city. The second of these would have been located at the presumed confluence close to the Silchester Gate. The projected crossing point of the bridge would have been directly over this fusion point between these two bodies of water; something that is hard to ignore when the road has taken such a definite change of course. In addition, as Ermine street exited Cirencester in the north it would have been bounded by the two rivers, so maintaining a profound relationship with water. Furthermore, the Late Iron Age oppida complex at Bagendon lies in this trajectory, possibly enhancing the meaning and experience of such a journey. The significant deviation of the Fosse Way also seems to bridge the two bodies of water at potentially interesting points. According to current reconstructions, the Bath Gate and Verulamium Gate crossings would have been located at the point where the Daglingworth Brook and river Churn are at their most distant from one another (at least in terms of their journey around the town). This was accentuated by the Roman period canalisation.

Such interaction with water does not have to compete with the interpretation of Reece and Creighton, relating to the Tar Barrows. Indeed, as we have observed with other examples, the bridging of water could tie together many features of the surrounding landscape. In this regard, the Verulamium Gate could have been equally as grandiose as

[23]Mercury is also notably associated with the Balkerne Gate area in Colchester (Crummy, 2006) and also the Walbrook *mithraeum* in London (Toynbee, 1962, Plate 31, no. 20). This perhaps furthers the idea of transitional elements of Mercury's character were acknowledged and worshipped in Roman Britain.

the Bath Gate (if not more so) and appears to have been associated with a masonry bridge (Wacher, 1995, p. 312; Wacher & Pamment-Salvatore, 1998, p. 37). This is obviously the closest crossing to the Tar Barrows and thus could feasibly have been part of a main processional route. [24] Be that as it may, the creation of a Roman settlement in this area did not mean that the prehistoric landscape was forgotten. As with other examples, the crossing and manipulation of water may have been a primary example of hybridism within the urban landscape, fusing both incoming and local beliefs.

2.6.6 Colchester (*Camulodunum*/*Colonia Claudia Victricensis*)

Colchester was certainly among the most important towns in Roman Britain; as the centre of the Imperial cult it was a settlement of primary ideological focus (Wacher, 1995, p. 118). Neither did this significance suddenly appear in the Roman period; principally from the late Iron Age onwards, this was an important site, possibly reaching its peak of influence during the reign of the Catevellauni leader Cunobelin. Increasingly, scholars have looked at this late Iron Age ruler as an equivalent to the client Kings elsewhere in the Empire (Asia minor particularly), whereby he was deeply familiar with Roman practice and symbolism on the assumption he was socialised in Rome as a child/adolescent.[25] Roman period buildings such as the Temple of Claudius appear to be features planned by the central Imperial authority, but this familiarity local rulers had with Rome does place urban development within a dynamic context. These factors are inconsistent with seeing Roman Colchester in black and white terms of 'Roman' and 'native'.

The immediate topography of Colchester is another example of a settlement being woven into a wetland context (see fig. 15). The town is located on a type of peninsula formed between the confluence of the Colne and Roman River (Hawkes & Hull., 1947, p. 3). Down river from Colchester the Colne empties in the sea; within this estuary area, Mersea Island was a focal point for prehistoric burial.[26] The Iron Age oppidum at the Colchester site was stretched over this landscape with, what archaeologists have often deemed, an important industrial site at Sheepen (Hawkes & Hull., 1947; Niblett, 1985;

[24]In the same way Esmonde-Cleary (2005) has envisioned the road from Gosbecks to Colchester.
[25]This is seen in both coinage (Creighton, 2000) and also in the layout of nearby Gosbecks – potentially Cunobelin mimicking the Roman fort style (Creighton, 2001, p. 8).
[26]Burial mounds would appear to continue to be a feature of this location into the Roman period (Warren, 1915).

Crummy, 1997), some 0.75 km north-west of the Roman town centre. Willis (2007a, p. 121) has highlighted how the Colne was particularly dynamic at this point, where several streams drain into the main river. This would have meant that the floodplain was wide with the potential for areas of standing water (Rogers, 2008, p. 78). The Sheepen site also aligns to the lowest non-tidal part of the river, indicating a transition in the waterscape. Indeed, Willis (2007a, p. 121) mentions that all of these elements, in addition to providing for industry, would have created a landscape rich with religious and symbolic meaning; this is something reinforced by the proliferation of temples constructed here after the Boudican revolt (Hull, 1958; Crummy 1997). Sheepen would also have served as a fording point of the river (Hawkes & Hull., 1947, p. 4), which in itself perhaps adds to the symbolism of the area.

The continued prominence of this meaning-laden area as Colchester developed must be part of the discussion regarding the development of the town. Certainly there is evidence that Colchester may have drawn a water supply from the Sheepen springs (Crummy, 1984), linking the areas on the basis of water. The interaction of the Roman bridges also could bear meaning. Hawkes and Hull (1947, p. 4) noted that the high-tide mark of the Colne was located opposite the Roman East Gate, where it is presumed the eastern Roman road crossed the river. The northern entrance to the town is preceded by another crossing, which could also reference a significant point in the river. After this, the Colne curves northwards and meanders into the Sheepen area, the Roman crossing possibly acknowledges this change in the river's nature.

2.6.7 St Albans (*Verulamium*)

As with Colchester, the site at Verulamium (modern St Albans) was pre-dated by an established settlement in the Iron Age. The oppida complex of Verlamion stretched over the valley of the Ver, with potentially seven major occupation sites in the immediate vicinity of the Roman town (Niblett, 1999, p. 406). The best investigated of these are Gorhambury (Neal, et al., 1990), Praewood (Wheeler & Wheeler, 1936) and Folly Lane (Niblett, 1999). According to Rivet and Smith (1979, pp. 498-499) the name Verlamion refers to a 'settlement over [or by] the marsh'. All of these sites were at points that overlooked the river Ver and the marshy zone through which it passed (Creighton, 2006, p.

124). Anthony (1970) noted how the river would have occupied different water channels over time and there is evidence for other streams in the area. We may not have firm evidence for river islands, but the marshy nature of the area always holds the potential for such land forms. Furthermore, the path of the Ver through this area could have been seen as a meeting point between a flowing river and the more stagnant waters of the marshes.

The importance of the local waterscape has been confirmed with the discovery of pre-Roman activity in the vicinity St. Michaels. Directly adjacent to the marsh, this area almost certainly held a central importance in the wider landscape; the concentration of metalworking debris and deposits are unparalleled on other sites in Verlamion (Niblett, 1999, p. 411). Furthermore, nearby evidence has been found for a crossing point of the Ver (see fig. 16). Three rows of timber uprights have, somewhat misleadingly, been named the 'timber tower', but are generally interpreted as part of a brushwood track-way, perhaps in association with a gate (Niblett, 1999, p. 410; Niblett, 2005, p. 65). A large number of small items, thought to be votive offerings, were found in the river peat close to the crossing. A small plaque depicting a river deity was also found nearby (Niblett, 2001, p. 87). This causeway across the marsh led up to the Folly Lane temple complex, which has been acknowledged as a pivotal site in the local landscape. Indeed, Creighton (2006, p. 127) details how it was directly, and purposefully, linked to the St Michaels enclosure. This direct projection from the high ground subsequently dictated the street plan of the Roman town.

The Roman *forum-basilica* was eventually built over the St Michaels enclosure, and thus maintained the prominence of a straight-line perspective to Folly Lane (see fig. 17). Creighton's discussion emphasises how the continued importance of Folly Lane dictates the monumental urban landscape of the Roman town; the bathhouses, *forum* and theatre all seemingly respect the landmark and become part of a processional route towards it (Creighton, 2006, p. 127). However, what seems to be underplayed is the fundamental role that engaging and crossing the water had within this conception of both the town and temple complex. In this regard, Esmonde-Cleary (2005) has also made reference to the continued importance of the Ver in later Christian accounts. In the *pasio* of Alban there is direct reference to people thronging to the bridge as the future Saint approaches. To gain access to the other side, Alban walks upon the water. This is a key part of his eventual beatification, as it represents a miracle but also marks the journey to his death at the nearby

arena. The Christian habit of appropriating important symbolic concepts and local myths means such a reference cannot be underestimated. Alban's crossing is a miracle that hints at a tradition from antiquity. We could even postulate that this alternative route Alban uses could be close the original crossing of the 'timber tower'.

In summation, Creighton notes how in Verulamium the relationship between monumental features of the Roman town and prominent Iron Age features has an overarching unity that is not seen somewhere like London. In fact, the role of London bridge directly linking Southwark to the central Roman *forum* bears a similarity to the direct nature of Verulamium's links to Folly Lane. Both are combining areas of pre-historical significance to Roman monumental features, with the mutually significant medium of water establishing the symbolically receptive middle ground.

2.6.8 Other Towns

As Rogers (2008, p. 73) details, in terms of Britain's twenty-one leading towns, only Caerwent lacks a deep physical relationship with water (fig. 18). Among these there is a definite confluence at Caistor-by-Norwich where the Tas and Yare meet (Wacher, 1995, p. 243), a place which we have already noted as having prehistoric ritual meaning (fig. 19). Chelmsford would have similarly overlooked the confluence of the Rivers Can and Chelmer (Drury, 1988, p. 1) (fig. 20). At Carmarthen, the town would have been situated within the estuary of the River Tywi (James, 1993, p. 95) and therefore could well have been considered another important confluence between fresh and saltwater (fig. 21); Winchester was deliberately built on a Tufa island in the floodplain of the Itchen (fig. 22) (Rogers, 2008: 47); Exeter was founded at a point where three islands were present in the Exe (Henderson, 1988) and would appear to have used this area to bridge the river (fig. 23); Wroxeter was by the side of the River Severn (complete with a river island still present today), had the Bell Brook running through the town and was certainly the point of a ford (fig. 24) (White & Barker, 1998). The settlement at Brough-on-the-Humber (Petuaria) does not possess particularly extensive archaeological remains for a likely *civitas* capital, but it was located on the corner of the Yorkshire Wolds besides the wetlands of the Humber (fig. 25). Moreover, a mosaic at the nearby Brantingham Villa depicts eight river goddesses, in reference to the numerous tributaries of the huge

catchment that drains into the Humber (Liversidge, et al., 1973). Even those towns with no clear association to a definite confluence or island were often located at points of river braiding, or river meander (Aldborough, Chichester, Dorchester, Gloucester, and York)[27]. Silchester is one town that lacks a prominent river, but it was founded close to a number of small brooks and is well known for its underground water (fig. 31) (Boon, 1974, p. 85). The result is that over half of Britain's most prominent Roman towns show clear evidence of association with types of islands and confluences; while the remaining number hint strongly at the possibility of such circumstances in their local waterscape.[28]

2.7 Discussion

Bridges have often been portrayed as the harbingers of economic prosperity and practical Roman determinism. Any ritual associations have been viewed as almost reactive or isolated practices to appease gods or ease passage. However, it has been shown how bridges can alter the human perspective on a waterscape – enhancing the sensual perception of flow and even changing the physical current of the water. At dynamic points in rivers where confluences or islands (perhaps a combination of both) are apparent, the creation of a bridge could represent a deeper interaction with the water flow than any other 'man-made' structure. In some ways, the ritual deposits we associate with these constructions, in an Iron Age and Roman context, has perhaps belied their importance as active features within the urban arena.

In the Roman towns shown here, the bridges frequently lead central roads over water into the monumental heart of the settlement. Indeed, the often direct nature of this journey, for the individual, links the experience of crossing the bridge to central symbolic areas of the Roman town. There is a distinctly Roman essence to building bridges, engaging with Purcell's (1990; 1996) ideas about the history of water management in the Mediterranean. The constant challenge of resisting and manipulating water flow is something inherent within these incoming traditions. Yet, at the same time, in Britain, these structures have their own established special relationship with water – where the changes in perspective and perception provided by a bridge are integral parts of the Iron Age world view. An

[27] For diagrams of these towns see figures 26, 27, 28, 29, 30 respectively.
[28] It is also worth noting the continuance of this pattern in Roman Gaul, where prominent towns such as Paris, Amiens, Autun, Meaux, Metz, Trier, Bescanon, Sens, Melun and Lyon are all sited close to islands (Ingate, 2008).

accurate gauge of the power of bridges within Roman towns must acknowledge this complexity of meaning. In many ways, the consideration of bridges is an ideal tool for demonstrating hybridity, moving beyond simple labels of 'natural' or 'man-made'; Roman or native; land or water. Their construction could in fact have been an entanglement of all these and countless other, more ephemeral, associations.

This approach can have a profound effect on how we understand towns in the province. Lincoln, for example, is often interpreted as an archetypal Roman settlement that was imposed on the landscape by a foreign power. Even as archaeologists have discovered Iron Age ritual activity associated with the water, they have then focused on incoming Roman domination of these beliefs. The Wigford causeway is viewed as a stark illustration of this thinking, bridging the liminal island features of the Brayford Pool. However, this approach seems to ignore the local affinity for causeway structures and their interaction with the River Witham. On the other hand, envisioning this activity as simply a matter of direct native continuity is hardly satisfying either; after all, we know the army were certainly an early presence on this site. The solution is emphasising the multiple functions and associations that could co-exist in the construction of the bridge. Just as practicality can sit alongside ritual, incoming ideas of manipulating water could easily be fitted into a developing framework of local belief. In other words, the Wigford Causeway could be about controlling experience of the waterscape (for the benefit of the new town) but, at the same time, could have been perceived as something of a familiar development by the local populace. In effect one could note the amplification of local meaning by the incorporation, and legitimisation, of incoming 'Roman' ideas.

2.8 Conclusion

This chapter has sought to outline the complex and hybrid relationship that Roman towns had with rivers in their immediate territory. Too often this has been presented as a straightforward exploitation of the natural environment, fulfilling a fundamental goal of strengthening the economic infrastructure of the province. While there is almost certainly merit to such arguments, we over-simplify urban development by endorsing them in isolation. The strong water traditions of prehistory, identified in many parts of Britain, cannot be ignored in this discourse. Neither can they be explained as just a target for 'Roman' appropriation and domination. The similar beliefs witnessed in Italian contexts

imply there is a far more nuanced perception of the urban relationship to water in the Roman period that, even in Italy, was markedly influenced by local variability.

Areas of river confluence, and the islands they often produce, have been presented here as nodal points within larger, meaning-laden waterscapes. The construction of bridges is often the most direct link forged between a nearby town and these focal points. Acknowledging the layered meaning of these structures and the complexity of the relationship they forged with a surrounding waterscape is an initial step forward in exploring the role of water in the towns of Britain. It moves us away from clear-cut definitions that limit the function and meaning of such structures based on accepted convention. The observance of votive deposition, for instance, can be a valuable indication of ritual importance. However, its absence in the context of a bridge does not mean that the structure should only be viewed in practical terms. This chapter has emphasised that the physical engagement of a bridge with a waterscape and the altered perspective that it could create may have been just as symbolically and ritually profound. Moreover, this means that the occurrence of bridges at key points could have changed the way people experienced certain elements of Roman towns, furthering the hybridity of central urban spaces.

Yet, this chapter is merely a starting point in a more profound analysis of the Roman urban waterscape. In some ways, it serves as an intermediary topic when compared to the increasingly 'Roman' urban features of the forthcoming sections. While bridges have clear precedent in a prehistoric setting, organised urban water supply and bathhouses have been portrayed as detached from the traditions of the local provincial landscape. However, as with the treatment of bridges in this chapter, it will be argued that the association of such structures to water creates problems for such simplistic notions of defined cultural ownership and function.

Chapter 3: Wells

3.1 Introduction

This chapter aims to analyse the meaning of wells within the urban landscape of towns in Roman Britain. Undoubtedly, these features had a variety of practical functions including providing water for drinking, cleaning, cooling, and industrial processes. However, unlike in some of the later sections of this thesis, there is a general acknowledgement that this type of feature held ritual importance in both the temperate European and Roman traditions. Much of this consensus stems from enduring practices of votive deposition in wells and pits throughout Europe. Yet, there is a danger that such 'special' behaviour is considered in isolation in urban contexts, without pondering links to the surrounding landscape and waterscape. A consideration of this wider impact can also force us to question the significance of wells/pits without such tell-tale evidence. Indeed, this more ethereal side to well-worship is debatably a more relevant factor to us when assessing the role such features played in their functioning 'life' within a settlement. Too often we resort to one dimensional activity defining wells. In towns, this often boils down to them being practical in life with a ritual closing, or practical throughout until no longer functioning. Yet, even the most basic well would have constituted an interaction with (previously concealed) natural forces resulting in additional layers of cultural complexity to the feature. Exposing these additional dimensions of rationalisation within the past is a crucial aspect in assessing the importance of wells within urban contexts. Therefore, this chapter will try and study a broad range of 'significant' wells, rather than focus on a particular practice or type of deposition. As a result, it is hoped that this analysis can explore the potentially deep integration of these features within the urban experience and their role in the construction and recreation of cultural practice and expression.

.

3.2 The Modern Inheritance

If there is one area of water management and supply that still harbours non-practical connotations to the modern audience, it is that of wells. Certainly in Britain, the idea of the wishing well continues to be a prominent element of superstitious belief that is passed

down, almost unknowingly, even to the modern generation. No doubt the continued prominence of these beliefs owes a lot to Christianity, which has obviously endured and transmitted meaning from antiquity to the present day. Indeed, it is regularly stressed how many 'pagan' wells were appropriated by the Christian faith in an effort to stem heretical practices. Strang (2004, p. 88) notes how Christian festivals were frequently timed to coincide with well-visiting rituals and churches were also built over these structures; for example, the abbey at Cerne Abbas was constructed on such a site.[29] Other wells were simply rebranded with an appropriate Saint linked into the local lore, moving from 'magical' to 'miraculous' (Strang, 2004, p. 89). If such transition was difficult to achieve there was also the possibility that wells would have been translated into the extensive narrative of Christian evil (e.g. demons and the devil).[30] The pre-Christian identification of these areas with an underworld was not necessarily negative, but it was easily woven into the fabric of Christian belief so as to inhibit the pagan worship of such sites (Sauer, 2011, p. 507). Of course, such thorough appropriation hints at the strength of pre-Christian worship of these sites, which will be discussed in due course.

However, away from the direct influence of Christianity, there is also a sense that wells have become more a feature of fiction than reality for the modern audience. They are part of a pastoral tradition that is generally only experienced through books, films or folklore. Some have argued that this is a product of nineteenth century Romanticism, which has actually manipulated the view expressed above of continuity in well worship through the ages, so as to facilitate a link to antiquity (Döring, 2003; Walsham, 1999, pp. 241-242). The well-dressing ceremonies that still endure in Derbyshire, for instance, were part of this revival movement, which looked to this type of activity as a positive contrast to the industrial inner city life in Manchester and Sheffield (Palmer & Palmer, 2000, p. 42). Nevertheless, it would appear rather cynical to proclaim such examples as entirely responsible for a false continuity with the past. After all, for every example of this revival (based on classical learning), there are well traditions that appear rather untouched by such

[29] There are numerous examples of this such as Holywell (Hunts), which is dedicated to St John the Baptist and stands above a well and existed before 1007; St Bride's, an eleventh century church just outside London, which was aligned on an artificial well or cistern and cut through the remains of a Roman building; the 'Old Church' at Cokethorpe (Oxon.) which is dated to A.D. 958 and possesses a curative well (Blair, 2005, pp. 377-378). All of these are churches of the Early Middle Ages and seem to have potential for interpretation of their importance before the establishment of the Christian buildings.

[30] Indeed, there seems a degree of inconsistency (to be expected) in the treatment of wells within the Middle Ages. Some will have been assimilated into the rationalisation of the Saints or the Virgin Mary, while others will have been frowned upon by Christian authorities (Blair, 2005, p. 477 and 481).

intervention. In 1837, for instance, John Cole (1837, p. 7) wrote that "aged people" maintain that the town of Wellingborough (Northamptonshire) was named because of its numerous healing wells. He also references Michael Drayton's earlier seventeenth century work the *Poly-Olbion* which refers to Wellingborough in association with these wells. This would appear to confirm that there is a long-lived tradition reaching back further into history.

Perhaps the most helpful aspect of any revival is that it indicates the beginnings of a detachment of the well tradition from the urban space. In many ways, the abstract or supernatural parts of the well tradition have managed to endure in the collective consciousness because there is no practical equivalent in the modern town. Indeed, piped water, bathhouses, sewers, fountains and bridges all have their modern forms; wells are an archaic throwback that cannot truly be equated to a twenty-first century urban rationale. It could be debated that this gives us the opposite theoretical problem to many other elements of the Roman waterscape; we are perhaps more likely to ascribe supernatural values to these structures because of our own folklore and beliefs.

This familiarity with the special nature of wells may be a prime reason why they have been one of the few elements of Roman urban water supply to be questioned in a non-practical sense by archaeologists. The idea of votive deposition within these structures is something of a given since the early 1980s and the work of Ralph Merrifield (1987). For once, there seems to be a degree of agreement that these water structures were concerned with more than just the pragmatic supply of a resource to different settlements. Of course, most of this has been tied to the interpretation of these characteristic votive items that have been found in well/watery contexts (Merrifield, 1987; Bradley, 1990). Yet, while votive deposition is always going to be the prominent evidence for ritual meaning in wells (and will inevitably be dealt with in this chapter), there is possibly a great deal more potential within the study of these structures that is not so obvious to the archaeologist.

Indeed, if one looks through some examples of wells that are still considered special in the modern age, you can appreciate the great breadth of significance they can generate. For example, there is a well at Oundle (Northamptonshire) that is said to drum on fateful occasions in history, such as the death of a monarch (Cordner, 1946, p. 27). This well both triggers a sensory reaction but also has an ideological link, of sorts, to the monarchy. The well at Routing apparently gives warning of an approaching storm; as such, its power is

almost elemental. The well at Chipping Tawton (Devon) is known for being dry in the summer but, despite this, will fill with water before some great calamity (Cordner, 1946, p. 26). Some other wells have also acquired a type of identification with certain people; so the well at Harpham (Yorkshire) drums preceding the death of a member of the local Quinton family (Cordner, 1946, p. 27). All these wells could loosely be bracketed under the heading of "prophetic", but they are varied in their 'powers' and their forms of expression. The fact that the lore behind these particular examples survives to this day, in an increasingly secular country, perhaps goes some way to showing the belief invested into the structures over the years. However, from an archaeological perspective, it proves the point that we must try to look beyond just the traditional ideas of votive deposits to appreciate all the meaning that such water sources could have provided.

3.3 Temperate European Tradition

As outlined previously, the veneration of water or via water, as a portal and medium for communication with the gods and other worlds, within the temperate European pre-history is widely accepted. It is logical to think that such a special conception of water would almost certainly be attributed to the type of underground water that is harnessed by a well. In line with what was said above, Webster (1995, p. 452) debated that much of the reason why wells have become part of the ritual corpus of the British Iron Age is because of an overreliance on medieval Irish literary sources, rather than distinct archaeological evidence. This is a worthy criticism and highlights the fact that we are often dealing with more ambiguous evidence in the pre-Roman era, with pits and shafts occurring with different deposits and differing concentrations.

The work of Ross (1968) and Wait (1985) constitutes the two large scale surveys of Britain. The former certainly emphasises examples from different periods (as Webster infers) to support the argument, but does clearly have significant evidence branching across the 'Belgic' area of Britain. Indeed, both contributions plus the significant work of J.D. Hill (1995a) put emphasis on votive items being deposited in these features during later prehistory. So there is an accepted tradition of people in Britain seemingly venerating shafts that have been dug into the ground; this is also reflected in many other places in

temperate Europe.[31] While not all of these pits or shafts would have served as wells, it is often hard to differentiate. This is the case at Newstead, Borders, (a Roman period example that provides a convenient parallel) where many of the pits are considered to be wells, despite not necessarily possessing the structure apparent in other Roman examples (Ross & Feachem, 1976, p. 232). One should note that these types of structures would have contained water at a certain point; obviously piercing the water table (and forming a proper structure) creates a more enduring presence, but rainfall and flooding could equally transform relatively 'primitive' pit into a water-bearing feature.

In line with this, it is worth mentioning the work that has been undertaken on prehistoric pit alignments. This type of monument seems to emerge in later prehistory and consists of a series of pits dug to form rows. These have been largely enigmatic types of pit for the archaeologist, seemingly lacking any obvious practical reason for their institution. However, a number of authors have made the link between these features and water (e.g. Pollard, 1996; Willis, 2006; Rylatt & Bevan, 2007). Rylatt and Bevan (2007) noted how, in their experience on site, these pit alignments would naturally fill with water through rainfall and remain for some time as pools of water. The result is the creation of a reflective monument that separates itself from the landscape by manipulating the water (Rylatt & Bevan, 2007, p. 221). Through examination of pit alignments at Kilvington (Nottinghamshire) and Gardom's Edge (Derbyshire), Rylatt and Bevan have postulated that the main role of these monuments was to hold water thereby altering traditional boundaries within the area. The close association of these structures with rivers strengthens this idea (Pollard, 1996); it suggests their construction, in the Iron Age, could have been a profound reaction to changing landscape conditions and a method of defining liminal zones. Essentially, communities may have created these monuments so they would be inhabited by a nearby water deity, a traditional force of power, in order to legitimise land arrangements. This may have had an effect on the perception of other nearby communities, but could also be an expression of appeasement to placate a river deity that is encroaching upon the land through flooding. These monuments would certainly be a vivid demonstration of the influence a river could exert on its surrounding landscape. They

[31] Ross (1968, p. 285) highlights votive pits at Libenice (Czech Republic), Lossow (Germany) and Poitiers (France).

would also make it easier to interact with the water, instead of entering the dangerous full flow of a river.

While these monuments are unlikely to be found in a Roman town, they are another aspect of the reverence of ground water that has been subject to little analysis despite being widespread in later prehistory. Perhaps the most intriguing element of this is the sensory appreciation of these pits and the possibility that they could be linked to a nearby water deity. This type of analysis moves us on from the rather isolated treatment of votive deposits, into the more ethereal spatial links such features could have had within communities of the past. Rylatt and Bevan (2007, p. 223) quote Bradley (1993, p. 116) who notes how "new developments are more secure where they are invested with the authority of the past". For them, this is the process of how pit alignments were manipulating an older traditional power (in the utilisation of the water) thereby legitimising the new monument and possible land division.[32] However, moving into the Roman period it is highly possible that such processes could have continued to develop and found themselves expressed within the new urban form. This may have played a part in the creation of a new hybrid sense of place in the Roman town.

3.4 Roman Tradition

3.4.1 The City of Rome

In many ways the study of wells in urban contexts within Roman Italy has been underemphasised by archaeologists. The emergence of aqueducts as monumental elements of water provision meant that by the Imperial period many towns were not in need of a copious underground supply. Looking from a standpoint of calculating and analysing water supply, this means that wells would be a rather minor contributory part of any study within a significant town. A detailed examination of these structures within Italy could be enriching on many levels, but clearly falls outside the remit of this thesis which looks to focus on Roman Britain. However, what needs to be emphasised is the prevailing attitude that people in the Mediterranean had towards wells, or perhaps more generally, underground water.

[32] This may have supplemented similar arrangements with naturally occurring pools and water channels in the area.

The most obvious acknowledgement of well worship within the Mediterranean tradition was probably the *Fontinalia* festival within the Roman religious calendar (Varro. *Ling*. 6. 12). Held on the 13th of October, this is often thought of as a festival associated with springs; yet it also involved wells being dressed with garlands and objects thrown into the shafts (Scullard, 1981). Further festivals such as the *Furrinalia*, the *Neptunalia*, the *Camenae*, *Juturna* and perhaps *Carmenta* could also have been involved in the appreciation of underground water sources (Edlund-Berry, 2006, p. 168). This gives us a general sense of the widespread respect that would have been entrenched by a series of annual celebrations in Rome and beyond. The festivities around the wells would perhaps be framed by nearby buildings (possibly by procession into central areas like a *forum*); these may have even been temporarily altered to befit rituals of the particular festival. Furthermore, the materials needed to dress the well, or deposit within it, would need to have been made (or purchased) somewhere, possibly in the immediate community. If so, then these items may have had a local flavour to them, possibly being manufactured to suit the attributes of a particular well. Consequently, these festivals could have been profound opportunities to forge links within the community and project values to outsiders.

The watery nature of the *Forum* in Rome itself has been outlined previously. However, one of the most mysterious monuments within this space is the *Lacus Curtius*. The name implies a lake and this is probably a reference to the earlier prevailing conditions in the area during the archaic period. Yet, the actual structure that developed, and has been preserved to this day, resembles a pit or well; the latter seems more fitting giving the name and geology of the area. Little is known of the real purpose of the *Lacus Curtius* but it seems to have maintained a ritual importance well into the Imperial period. In fact Suetonius tells us that, to show appreciation for Augustus, "all conditions of men...each year threw a small coin into the *Lacus Curtius*" (*Aug*. 57.). This may hint at a similar veneration of pits/wells within the central Roman tradition. Yet, just as importantly, it also shows how in the Imperial period such a traditional ritual focal point became an ideological tool.

3.4.2 Underground Water – Wells and Springs

In an antiquarian survey of all the wells and springs of Rome, Smith (1922) notes how the two terms are not easily separated within any language. After all, a well is usually perceived as a structure that taps an underground aquifer; while the spring represents a natural occurrence of the aquifer at the surface. Conceptually, there seems very little reason to differentiate the value of the water when a well and spring are located nearby. While some may debate the spring is a natural phenomenon, and therefore could have held more significance for those in the past, the reality is that they would also have often been dug out and given a structural framework. In the case of the Roman period, this could have turned a spring into the source of an aqueduct. In an urban context, the spring would have become every bit as much an example of a hybrid phenomenon as a well.

Vitruvius further emphasises the practical link between spring and well. Indeed, his description of how one would locate a suitable site for a well highlights the complex process involved in such a task. These appear to border on the ritualistic. One of his recommendations, for example, involves the placing of oiled bronze bowls in trial pits and covering them in reeds so as to draw out the moisture (*De*. *arch*. 8.1.4). Perhaps more significantly, he also outlines how when a well taps a spring many shafts are to be dug, and connected underground with tunnels (*De*. *arch*. 8.1.6). So, in this case, we can see how the 'man-made' well can increase the natural flow and yield of a spring.

Vitruvius is not alone in giving us such a description, Seneca mentions the sinking of wells on three occasions during one book of his *Questions on Nature*. In the first he is disproving the idea that rainwater could account for the appearance of underground supplies. He describes how in a dry area a well could be sunk to a depth of 60 or 90 metres and still find "living water" (*Sen*. *Q Nat*. 3.7.3.). The use of this term is interesting because it is often used in the description of springs and water concerned with ritual in the Roman belief system. The second mention occurs when Seneca regales how "the wells and lakes disappeared, because the land ceased to be tilled" on the Island of Crete (*Sen*. *Q Nat*. 3.11.4). Again, we are given an example where the wells are taken together as 'natural water', thus equally as befitting of veneration. The third example continues this noting how "some wells are full for six hours and dry six alternately"; the explanation, according to Seneca, being the similar source of these wells and rivers, which also run dry at some points during the year. The final reference confirms a sense of purity for the well, in

parallel to natural elements such as the sea, by explaining how some wells have been known to "throw up not merely mud but also leaves, and bits of crockery and any other filthy things that have accumulated in them" (*Sen*. *Q Nat*. 3.26.6). This implies that some wells had the power to cleanse themselves and reject unwanted materials. The purifying attribute could be a reason why it was deemed appropriate to sprinkle well water on food before sale in Rome (Edlund-Berry, 2006). So, not only does Seneca link wells directly to other elements of 'natural' or 'living' water, but he also distinctly confirms a purifying aspect that engenders a sense of importance similar to that accorded to a spring.[33] This purity of well water is also mirrored in the direct references Pliny makes on the subject noting:

> *From what source then shall we obtain the most commendable water? From wells surely, as I see they are generally used in towns, but they should be those that the water of which, by frequent withdrawals, is kept in constant motion*
>
> (Plin. *HN*. 31.23).

Therefore, the idea that well water has a commendable purity is emphasised, but also the fact that it is living, moving, water like that of a spring.

The other key aspect that is communicated in these accounts is a sense of wells being subject to that same personified nature which has been mentioned previously. There appears to be a number of occasions where a certain action was needed otherwise a subsequent reaction would be seen in the well. So if the fields were not tilled appropriately the wells and lakes would disappear; or if water sources were subject to extensive refuse they would reject this material through the wells. Even Seneca's account of wells being full and dry alternatively for six hours surely conjures images of mischievous water deities with their own agenda. These accounts reflect that the act of well construction may have involved a degree of negotiation and balance with the natural world if one was to secure an enduring water source. It reflects the possibility that any failure was probably not seen in purely practical terms, but also as a product of not satisfying/placating the local deities responsible for the water. This suggests the possibility that a number of unsuccessful wells in a certain area may have had a negative effect on the perception of the space in ritual terms (or the opposite positive effect of successful wells).

[33] The significance of which has been noted, but will be revisited in more detail in the next chapter.

In summary, it is clear from this review that we cannot dismiss wells as simply man-made structures that provide water. Instead, we are again presented with the idea of a hybrid structure that is placed by man, perhaps for practical use, but also can amplify a natural significance inherent in the water. In many ways, within the Roman tradition, it seems that the water of wells was viewed as the same as, or at least comparable to, spring water. Moreover, the complexity of belief inherent within these features could have had wider impact on the perception of urban space. Therefore, the occurrence of wells could be a telling marker of cultural expression within any town.

3.5 Evidence from Towns of Roman Britain: Case Studies

Evidently, from the above sections, we are presented with a strong trend in both the Roman and temperate European traditions of respect and veneration for wells. It is the point of this chapter to explore the extent to which these shared beliefs could have shaped the perceptions and experiences of the inhabitants of emerging Roman towns. What follows below is a survey of some of the most notable wells within towns of Roman Britain. This is by no means an exhaustive study of these features, which are obviously a relatively common discovery. However, what will be emphasised are examples that show a degree of cultural entanglement; these features would have been important markers of how people conceived urban space. Some of these wells have clear votive offerings but, regardless of such activity, the spatial relationship they have with other elements of the town will also be underlined. A few of the examples have no interesting deposits, but their positioning in the town is indicative of wider meaning that cannot be ignored. Essentially, the aim will be to promote these features as important parts of a hybridised urban waterscape.

3.5.1 Silchester (*Calleva Artebatum*)

When approaching the subject of wells within a Roman urban context in Britain, one has to start with Silchester, due to the scale of the evidence available in the case of this town. As noted in the previous chapter, there was no large river in the immediate vicinity of this site. Therefore, the procurement of ground water would have been an essential part of life in the Iron Age and Roman period. Subsequently, it is of little surprise that this Roman settlement has produced evidence for more wells than any other site in the province, although this fact

is tempered by the knowledge that the site is also one of the most extensively explored given its 'green field' nature and thereby accessibility to the archaeological spade. While practical requirements are obvious, there was undoubtedly a ritual element to some of these structures. The work of Fulford (2001) has synthesised much of the known evidence, meaning there is little need for re-treading the same territory. What needs to be emphasised is that within many of the central insulae of the Roman town there were wells with unusual deposits.[34]

The antiquarian excavations in Insula IV (the area of the *forum*), primarily by Fox and Hope (1893), uncovered at least four wells all with probable votive items. Among the finds were a bronze handle, two perfect pots, a lead weight, a steelyard weight, flints, coins, pewter cups, an iron stylus, two jaw bones of cattle, and dog bones.[35] These finds in wells were also accompanied by many similar deposits in pits: such as the skulls of four dogs, spurs of gamecocks and a small knife blade all found buried beneath the *forum* (Joyce, 1881). Additionally, Fulford (2001) mentions five other insulae that contain at least one well with unusual deposits.[36] One of the most striking of these was found in Insula XXIII; it contained a hoard of more than one hundred pieces of ironwork, as well as bronze vessels and two complete pottery vessels (Fox & Hope, 1901, pp. 246 - 250). Furthermore, these items were also recovered above a 1.5 metre thick deposit of black ash which would appear to suggest some sort of dramatic event or ritual burning. Regardless, in some ways this deposit is less useful because it was from a later period (fourth century). Although, in conjunction with the other evidence, it may imply enduring traditions associated with wells in Silchester.

These unusual well deposits occur in almost all of the central insulae of the town; the areas we associate as most overtly Roman and institutionalised within the town and indeed the surrounding *civitas*. They underpin the symbolic heart of the town in a very literal sense. The modern excavations of Fulford (2000) have further underlined their importance within this area from the Late Iron Age onwards. Under the Roman *forum-basilica* seven features were deemed to be wells; their initial construction was dated to the period between 25 BC – 15 BC (Fulford & Timby, 2000, p. 8), meaning they were presumably central

[34] For locations of insulae see fig. 32.
[35] The deposition of dogs in pits/wells is marked, and it has been suggested that they were seen as creatures linked to the underworld; hence their deposition could appease supernatural forces (Green, 1992).
[36] Insulae XXI, XXII, XXIII, XXVII and XXXII are all mentioned.

features of the pre-Roman settlement at Silchester. Of these seven features, four were still in use around A.D. 50,[37] and two of these continued into the Claudio-Neronian era. Another (Well F192) was probably dug around A.D. 50 and continued on throughout the Roman period. So these wells were enduring elements of this central area in the lead up to the creation of the formalised Roman urban landscape. Moreover, when coupled with the antiquarian evidence we get a sense of continuity in the creation of these features throughout the whole era of occupation.

None of the early wells seemed to produce quite the wealth of material documented in the antiquarian Silchester excavations. The most interesting of them was F423. This feature produced an exceptionally rich ceramic assemblage with a variety of Central Gaulish and Gallo-Belgic imports, stamped Arretine of Augustan-Tiberian date, and an un-inscribed Trinovantian copper alloy coin. Furthermore, other finds included a bone spindle-whorl, two perforated pottery discs, a small clay thumb-pot, a fragment of glass bowl, an iron awl, a nail, and an iron brooch (Fulford & Timby, 2000, p. 17). Perhaps even more intriguing than these finds, was the discovery of a human femur and skull in the early Roman phase of the well (Fulford, 2001, p. 548). Fulford has suggested that such a deposit is unusual because cremation burial had probably become increasingly the norm during this period. Therefore such disposal of bodies could mean other (more sinister?) activities were being played out in this area.

There is also a noteworthy pattern of deposition involving 'holed' pots; upwards of seventy examples of such vessels have been recorded from the Silchester Collection. The vast majority of these appear to have been placed in wells or pits with holes in the belly of the vessels (Fulford & Timby, 2001, p. 293). Jars made up nearly half of this number, with flasks, beakers and bowls also prominent. Some of these were substantially complete, despite being at the bottom of a deep well, suggesting careful placement. The reason for this activity is uncertain, but it could represent a type of ritual 'killing' of the vessel (multiple holes in the belly/base making it useless for procuring water). However, this practice could also be evidence of other activities carried out in association with wells. Fulford and Timby (2001) suggest a possibility that they could represent timing devices. It also appears plausible to suggest such vessels could have been used to test for well purity; a carefully holed jar could release water but retain unwelcome sediment for inspection.

[37] Wells F423, F762, F718, and F719.

Moreover, the sound of this water being released could also give a rough estimate of depth to ascertain whether more accurate measuring was required. As mentioned previously, the awareness of such attributes could be a gauge of how such a feature was perceived in the local belief system. Regardless, there is substantial evidence for this trend spanning from the Late Iron Age into the fifth century A.D (Fulford & Timby, 2001, p. 294). The aforementioned Well F762, for example, contained a grog tempered jar with a hole on the shoulder (Fulford & Timby, 2000, p. 17).[38] Of course, this would appear to imply a degree of continuity, from the Iron Age, in the practice of interacting with wells. Considering the other notable deposits in these features, it is certainly possible that this piercing of vessels was part of an expression of ritualistic action. The fact that many of the wells, like F762, were present in spaces that became central 'Roman' features (e.g. the *forum-basilica*) means one must question how people in Silchester were interpreting such spaces.

In addition, even when the Flavian era brings the establishment of a timber *basilica* structure there remains ample evidence that wells were present and incorporated into this important structure. F242 was a possible well, of around 1.9 metres in diameter, housed within a small chamber at the north end of the Flavian timber structure. This arrangement obviously means the feature was a planned part of the building and gives a sense of how wells continued to be incorporated into the highly symbolic Roman structures of the town. Indeed, the location of F242 is extremely close to the aforementioned F192 well,[39] thus perhaps showing a sense of continuity to the access to water at this particular point. Added to this, Well F501 was also in use in the nearby north-west corner of the *forum*, further associating the area with water.

Silchester is characterised by what may be thought a generous number of wells, which contained an equally striking number of probable votive deposits. The evidence still being produced from the site, illustrates that such features had enduring association with the central areas of the town from prehistory. Traditional accounts of the town have always highlighted the copious (and easy to access) groundwater as a practical advantage (Boon, 1974, p. 85). Perhaps the aforementioned traditions in both Rome and temperate Europe imply that ritual beliefs played an important part in their creation and function. Moreover,

[38] Interestingly a hole in the shoulder may not have inhibited the use of this vessel to procure water from the well (perhaps it represents a hole to fasten a rope). However, its careful placement within the shaft does suggest more than simply practical usage.

[39] Which was no longer in use during this period.

the location of these wells within the town, underpinning central ideological features, perhaps indicates a level of interaction that could have had a marked affect on the conception of urban space. Further, it may have been an important factor in the foundation of the town at this place.

3.5.2 St. Albans (*Verulamium*)

In the previous chapter it was noted how the crossing point of the Ver may have been an important element in any processional route between the Folly Lane enclosure and Verulamium. Another integral aspect of that intermediary landscape is a concentration of shafts on the slope beneath the enclosure (fig. 33). Twenty eight of these features were found south-west of the ceremonial enclosure (Niblett, 1999, p. 83). They generally date from around the middle of the second century, so they coincided with a period of intense building/rebuilding in Verulamium. At least eight of these are believed to be wells, but the lack of complete excavation means the distinction between a 'shaft' and a 'well' is not entirely clear. While the resources were not in place to fully excavate the 'well' features, their potential depth was much in excess of the other surrounding pits which were around two to three metres (Simon West, pers. comm.). Fulford (2001) notes that many of the shallower features would not have pierced the water table. However, there is potential that these shallower pits could also have accumulated rainwater (maybe via the natural run-off of the slope) and acted as a type of 'dumb-well' (Simon West. 2012 pers.comm.). Indeed, as in the case of the aforementioned pit alignments, accumulation of water in this type of recess could have had an ideological/ritual element even if it did not pierce the water table. It may even be possible that water from the deeper 'well' features could have been procured and stored temporarily in the surrounding shallow pits. This could facilitate greater interaction with the water for any associated rites, perhaps in a similar way to how a church christening often utilises a smaller basin rather than the actual fount where the water is procured.

In addition, these features also seem to be heavily characterised by votive deposits: such as human and dog skulls, plus two massive deposits representing at least thirty four cattle (Fulford, 2001, p. 210). Along with this, a number of the shafts contained complete, or partially complete, pots in both the primary fills and in the sinkages above (Lyne, 1999, pp.

299 - 302). While these features may be of a second century date, the human skull, in particular, does echo the importance of the head for ritual in temperate European tradition. Interestingly, seven of the pits also contained the remains of face pots. It is possible that these are symbolic representations being deposited instead of skulls, therefore marking a form of continued local belief. That notwithstanding, the proximity of these features to Folly Lane suggests another aspect of water interaction involved in the act of moving between the temple enclosure and main area of the town. Moreover, like the enclosure itself, this activity does not seem entirely 'Roman' or 'native'.

On the surface, the evidence of wells within the actual main town seems less prominent (Niblett & Thompson, 2005, p. 89). In some respects this is perhaps due to main excavation reports we have for the town, the mid twentieth century campaigns of Sheppard Frere and before him Mortimer Wheeler both focused on large scale problems involving primary building types, sequences and 'town history', rather than considering some of the smaller features. Frere acknowledges that there were a number of wells within the town, highlighting occurrences in Insula IV, XIV and XXVIII (Frere, 1983, p. 20).[40] All of these examples are references to wells seemingly within less public contexts. The first, in Insula IV, has only really been documented by Wheeler (1936) and is located within building 8. This wealthy dwelling dates from the middle of the second century and is well known for its hypocaust system and two elaborate mosaics, one made up of sixteen concentric patterns while the other depicts Neptune. The well was constructed in an adjoining room to this second mosaic, which gives us a sense of it being linked to the water deity.

The well is located in a projecting room on the north-western corner of the building, and would have been entered from the eastern side of the room from the adjacent veranda.[41] The total depth was around 11.5 metres which, according to Wheeler, would have been insufficient depth to gain access to water. Indeed, Wheeler made the assessment that this well was never actually in working order, despite being rather well built (Wheeler & Wheeler, 1936, p. 104). He backed this interpretation up with an analysis of the fill which, instead of consisting of a gradual accumulation of material, seemed to reflect mass filling of the shaft at one point. However, this arrangement is also indicative of some sort of structured closing that could be linked to ritual. The dating evidence stems from three

[40] For locations of insulae see fig. 34.
[41] It is possible, therefore, that the well would have been visible/less private than perhaps if it had been at another place in the household.

coins of Antoninus Pius plus a selection of pottery attributed to Antonine potters from various levels.[42] Willis (2005: 12.3) has highlighted the prominence of samian ware within the fill, and how this mirrors similar well deposits from a range of sites; all of which have been interpreted as examples of ritualistic behaviour.[43] The overall pottery sample also represents a range of items, but generally they are drinking vessels and open forms; therefore there is a sense that feasting activity could be a part of the life (or death) of the well. Another corroborating factor for this interpretation is the abundant food debris, which includes bones of ox, sheep, pig, indeterminate birds, large quantities of oyster-shells, shells of mussel and whelk, plus lobster-claws. Among this assemblage, the sea-food evidence seems striking. The lobster claws, in particular, would surely be seen as intriguing in any well context; but with the proximity to the striking mosaic depicting Neptune, complete with customary lobster claws,[44] a ritual interpretation seems inescapable (Niblett & Thompson, 2005, p. 89).

Of course, this leads to the question of why an unfinished well would require any sort of special treatment. Perhaps the mere fact that a depiction of a god is nearby would mean special precautions were needed not to offend. Yet, the potential late second century date of the fill perhaps suggests another element to the interpretation. Verulamium is known to have experienced a dramatic fire c. A.D. 155; thus it seems possible we could be seeing the supernatural or prophetic side of wells in the hasty filling of this feature. If the construction of this well coincided with the great fire then perhaps the misfortune of the owner was explained in terms of displeasing the gods.[45] As postulated above, the construction of a well would have represented a deep intervention into a different world. After such a dramatic event perhaps one would question whether such intervention was wise. Furthermore, even without such a link, maybe the fact that water was not easily found at the depth of 11.6 metres was taken as a sign that such a well was not *meant* to be dug.

The wells of Insula XXVIII are perhaps not as immediately remarkable as those in Insula IV. However, there are three such possible features beneath building 1. The first underlies room 16 and was given firm identification by Frere (1983, p. 242) and likely

[42] Wheeler (1936, p. 104) notes several examples: ALBUS, ALBUCIUS, MAGIO, MICCIO, UXOPILLUS and possibly MARCELLUS.
[43] Excavations at Heybridge (Atkinson & Preston, 1998), Oakridge (Oliver, 1992) and Chells (Going & Hunn, 1999) all uncovered wells with conspicuous proportions of samian.
[44] A style of depiction well practiced within the Mediterranean context (Clarke, 1991, p. 312).
[45] Certainly it seems that the fire spread over most of the area dug by the Wheelers in the 1930s (Niblett, 1993).

dates to the mid-first century. The other two possible features are located under room 1 and were slightly later in date. Not enough was known about them to give firm identification but they were sizeable pits that would have also encroached on the street, hence could have had a public element to them. While none of the features contain anything overly significant within their fill,[46] the nature of the building that overlies them creates some degree of interest. Building 1 seems to have been a centre for piped water at different points in its existence (as were other buildings in the insula) and possessed a substantial drain. In addition to this, there was an intriguing underground corridor which was complete with an apsed niche; this provided a focus at the end of the thirteen metre long passage that was large enough to house a life-sized statue (Frere, 1983, p. 249). It appears entirely possible that this was an underground shrine although it has no remains that directly imply either *Mithraism* or Christianity (Frere, 1983, p. 250).

While clearly we lack any evidence to really add to the picture of this subterranean feature it is interesting when one considers it alongside the wells/pits. Both the room 16 and room 1 features were only just beneath the ground level of the building; something that led to caving in of the floors in both rooms. As such, one might postulate that the underground passage resides at a similar level to these, potentially, water bearing features. It was accessed via a sloping ramp down from the street. This road would surely have been one of the busiest in the town, en-route to the *forum*, which may imply a public use of this structure. One does wonder if such a feature could have had a purpose related to water ritual. Certainly considering the location of the settlement and deposits (mentioned in previous chapter) found in the Ver it would not necessarily be out of character. Indeed, the road in question also leads to the original crossing point of the 'Timber Tower', resulting in a direct link to this putative underground shrine.

The other area that has produced wells is Insula XIV. Unlike the other two examples there seems to be a degree of continuity in the construction of these features in the immediate surroundings. In Insula XIV, pit 7 produced contents that were consistently datable to the Flavian period (Frere, 1972, p. 23). The depth of the feature led the excavators to interpret it as a possible well. The samian vessels deposited within the pit had wear on the foot-rings meaning that they did not derive simply from a pottery shop, but

[46] Probably the most notable discovery from the fill of the well in room sixteen was some samian dated to Flavian and Trajan/Hadrianic period.

were potentially used in communal rituals (Woodward & Woodward, 2004, p. 81). A number of crucibles were also recovered, which could also link the feature to metalworking and some of the ritualistic associations afforded to that activity (Budd & Taylor, 1995). Added to this, there was also an impressive series of major fragments from glass vessels (Charlesworth, 1972). This was the only pit that was fully excavated; therefore some of the other nearby features could also have been wells which further work may have established. Indeed, next to pit 4, in the mid second century, there was a pair of unusual alcoves built into the wall. These structures were associated with a miniature votive pot and were interpreted as domestic shrines (Frere, 1972, p. 57) .

In addition to the above, a number of infant and dog burials were found within the floors of the buildings; this was even the case in room 19, the same area as the slightly earlier pit 7 (Frere, 1972, p. 56). The special nature of such deposits is increasingly being noted on archaeological sites, most obviously in the aforementioned Silchester excavations by Fulford and also echoing the deposits at Folly Lane. While, unlike Silchester, these deposits do not all seem to be inside the actual pits, there is still a sense that the ground (or rather, underground) was seen as special within this area.

Similar to the aforementioned insulae, we again have an area that was greatly affected by the Antonine fire. After this event part of the insula appears to have been devoid of buildings for a long period of time. However, in lieu of such structures, there seems to have been activity of other sorts; this is logical considering the central nature of Insula XIV. Frere (1972, p. 98) notes that after the Antonine fire this area continued to be characterised by pit digging. Pit 19 was fully excavated and interpreted as a well; it had a clay lining and also was dug to a depth of four metres. Pit 14 was only emptied to about one metre but had a similar potential, also possessing a clay lining (Frere, 1972, p. 102). The continuity is what makes the activity in this area noteworthy. Over a long period of time well and pit digging was a feature and notable deposits that are often associated with ritual behaviour have been found. Even when other elements of building temporarily ceased post the Antonine fire, the interaction with groundwater continued.

In summation, the evidence from Verulamium regarding wells has perhaps been underappreciated in the academic literature. Clearly the well type features at Folly Lane are the most obvious candidates for considering the ideological impact of wells within the urban framework of the Roman town. They dovetail nicely with the strong relationship

between the Folly Lane ceremonial enclosure and the main town. This also furthers the interpretation of a processional link between the two sites put forward by Creighton (2006, p. 127). Additionally the pits seem to show a continuing tradition from pre-history, with the de-fleshed skull and face pots echoing head cults associated with watery areas. As suggested with the bridge over the Ver, the manipulation of water via built structures (in this case wells) is referencing prehistoric practice in the context of the new Roman town.

The potential of Folly Lane seems abundant; however, the other wells of the town have perhaps been undervalued. The example in Insula IV almost certainly has ritual connotations, and with its hasty backfill may echo the prophetic nature of wells quoted at the start of chapter. While the examples from Insulae XXVIII and XIV have less in the way of interesting deposits, the activity in their immediate vicinity makes them intriguing. All of these wells seem to be of a fairly short-lived nature. While there can be practical reasons for this, it is worth thinking of other explanations. The misfortune of the Antonine fire appears to have punctuated the lifespan of the town, with far reaching consequences. For the people of Verulamium a supernatural explanation of the events could feasibly have had an impact on the perception of such charged liminal features as wells.

3.5.3 Dorchester (*Durnovaria*)

Recent excavations at the Roman town of Durnovaria have confirmed that similar activity was a feature of urban life at this site. Peter and Ann Woodward (2004) have actually made direct comparisons between the evidence at Dorchester and the aforementioned sites at Silchester and St. Albans. Over the course of the Roman period, at least nineteen shafts/pits/wells were dug in the central areas of the town (fig. 35) (Woodward & Woodward, 2004, p. 72). As with the site at Folly Lane, there is a degree of uncertainty as to the true definition and role/s of these features so we cannot attribute all their value to the importance of wells. Some certainly seem more likely to be involved in water provision than others. In the second century, for example, an unusual stone-lined feature (15: fig. 35) probably functioned as a pool. Throughout the fillings of the nineteen features, there are numerous examples of near complete pottery vessels, samian bowls, black burnished ware jars/bowls, and bronze jugs (Woodward & Woodward, 2004, p. 72). As with the previous sites, there was also an exceptional faunal assemblage including the skeletons and skulls of

a large number of dogs and puppies, plus the cranium of a man within one of the deep shafts (6: fig. 35).

The main interpretation of these features has been that they represent urban foundation deposits within the tradition of Roman ritual practice, as engaged with by Rykwert (1976). It has also been suggested that the placement of wells delineated a series of sacred enclosures that could have had importance before the Roman period. Most of the pits (or wells) are clustered around what would have been the edge of these areas, with the exception of two large features which would presumably have been focal points within the enclosures (Woodward & Woodward, 2004, p. 72). The relationship these enclosures had to water worship is difficult to ascertain, after all it is not certain all these pits would have been utilised as wells. That notwithstanding, the primary public bathhouse is adjacent to these areas and has been seen as a building that was deliberately placed to engage with these features (Woodward, 1993). Therefore, while it is important to recognise similar votive deposits at other sites (such as Silchester), the precise meaning, resonance and impact that these wells/pits had with regard to the experience of key urban structures may have been uniquely local.

3.5.4 London (*Londinium*)

Evidence for wells in London is probably the most copious and diverse among all the towns in Britain (see figs. 36 and 37 for locations of wells mentioned). Three large Roman wells were found, in recent years, at Gresham Street in the area of the modern City of London (Williams, 2003; Blair, 2002; Blair & Hall, 2001). These structures would have provided a significant amount of water for high demand parts of the city, such as nearby bathhouses. From within the wells, the remains of sophisticated lifting equipment have been recovered, leading to numerous theories as to how they functioned. Indeed, a better understanding of how such Roman wells were constructed, how machinery such as lifting devices were designed and of how much water the wells could yield has been/is a primary goal amongst archaeologists; in part, this is due to the long running debate on whether London needed an external water supply (Wacher, 1978; Wilmott, 1982; Williams, 2003). While this is obviously a fascinating line of thought, stemming from the fact that these lifting devices are rarely recovered anywhere in the Empire[47], we cannot underplay the

[47] Cosa is the one other place where archaeologists have recovered these bucket-chains (Blair, 2002).

diverse social reaction that could have characterised the introduction of such technology. As with many elements of Roman water supply, archaeologists seem to have been pulled into a familiar cycle of casting these wells as achievements of Roman ingenuity that would have been received as an improvement to the situation of London. However, one needs to acknowledge that such thinking is predicated on a neutral value being ascribed to water. As evidenced in previous chapters, this is plainly not a feature of either Roman or Iron Age traditions that were coming together in Londinium, especially in these areas close to the Walbrook.

In some ways, the faults of trying to understand these structures by using modern engineering have been exposed by the process. Blair (2002, p. 516) noted, fairly early in the project at Gresham Street, how a massive team of engineers and mathematicians were engaged in trying to recreate the lifting devices of the wells. At the same time, he acknowledged that such modern techniques would not have been available to the Roman worker. On the surface, this seems to be merely an acknowledgement of Roman achievement, but it underlines a crucial realisation; when creating these wells Roman builders were not simply thinking in terms of equations and data. They would have been drawing on their traditional engineering/craftwork techniques; on their past personal experience; on their knowledge of certain materials (which may have had 'special' properties); and, of course, on the blessing of their gods. The last factor is surely crucial when we think about the explanation of failure. Indeed, while we may interpret the ultimate failure of these wells as having resulted from the 'trial and error' nature of their construction, it was not necessarily the view taken by the populace of London at the time; who may have been more likely to attribute this failure to divine intervention. This is somewhat corroborated by the fact two of these wells appear to have been in use at the same time; so there was not a sense that one was a definitive second version of the other.

In this vein, Gerrard (2011) recently analysed the assemblage of two late Roman wells (albeit not on the same scale as those found at Gresham Street) at the Draper's Garden site in the Upper Walbrook area. At the bottom of these features was a remarkable collection of copper alloy, lead alloy and iron vessels, as well as an interesting faunal assemblage (Gerrard, 2011, p. 552). This rich assemblage of items obviously led archaeologists to interpret the well as being part of marked ritual activity. However, Gerard (2011, p. 563) is keen to point out that finds such as an iron bucket binding, may appear to be entirely

utilitarian (and thus tell us less about beliefs), but should not be underestimated. He notes how these elements could have possessed significance because of their long association with the function of the water source. It is possible that the length of time these items were part of the functioning well may have imbued them with importance beyond the more immediately impressive items found at Draper's Gardens. Such an interpretation clearly has an effect on our conception of the monumental wells in the Middle Walbrook. The advanced lifting equipment recovered, which has been the focus of intense engineering and scientific postulation, could have been invested with just as much meaning as traditional 'votive offerings'. Blair (2002, p. 513) makes a point of emphasising the careful craft involved in producing the water cups, obviously the part of the well mechanism most intimately related to the water itself. It seems plausible to suggest that such items may have accrued a status beyond the mundane confines of practicality.

Of course, the counterpoint to these thoughts centres on the destruction of these structures. Analysis of the two larger well shafts has shown that both were the victims of rather calamitous ends. The first seemingly collapsed in on itself due to structural weakness; the second was probably destroyed in the Hadrianic fire of London (Blair, 2002, p. 512). Considering that the items we describe as votive offerings are often found in wells as a product of a structured backfill (perhaps involving a ceremony of sorts), we really do not necessarily possess the right circumstances, in this case, for comparison. Furthermore, the unfortunate circumstances that befell the structures have to be viewed through the perspective of a superstitious audience. It is possible that the events leading to the destruction of the wells could have been perceived as proof of a supernatural intervention, in a similar vein to the ideas discussed involving the Neptune well at Verulamium. It is plausible that this could have reaffirmed a sense of difference for these examples (in contrast to other wells in London). Such unprecedented interaction with the underground water of the area could have been perceived as an intrusion on a scale that would be unacceptable for the gods; the demise of the monumental wells may have been viewed within this rationale. The fact that there is no attempt to repair, and that one well is not a direct replacement of the other, also fits this theory. Furthermore, the third well in this area is known to be later but is notably smaller. This line of thinking opens the way for interpreting this as a return to a more familiar scale of water interaction.

While there are many examples of wells throughout the city, an area around modern Queen Street seems to have been continuously used for this purpose (Wacher, 1978, p. 107). In geological terms, it was a zone located on the terrace of the westernmost of the two hills on which the Roman city was built. Wilmott notes (1982, p. 5) that the combination of the London Clay being at a higher level, and the overlying gravels being less thick, created an ideal situation for access to the underground water. Combine this with the apparent lack of votive deposits and it is not hard to see why this area has been perceived in strictly practical terms. Wacher (1978, p. 107) makes the assertion that the water could have been used for public provision. The nearby site at Watling Court appears to have been a heavily populated residential area, which would have required a continuous water supply. The main point that is emphasised within Wilmot's report is the idea that this area could have been pivotal in the overall water supply system of Roman London (Wilmott, 1982, p. 16). Nevertheless, concentrating on these issues has perhaps obscured the wider significance of having an area at Queen Street that is devoted to water.

We are quite familiar with the idea of wells found in small groups near other buildings; these are often defined by their surroundings, or what we find in them. However, the case of Queen Street provides us with an overwhelming example of wells truly defining an area of an important Roman town. Indeed, the inference here is that people would have needed to frequent this area and interacted with the wells on a consistent basis. The association of this place with water would also have been reinforced through sensory perception; the sound of these wells, the movement between them, the various flavours of the water (perhaps some were more popular in this regard), would all have played upon the individual. This may have been a profound experience that linked the individual into the immediate waterscape, which has already been illustrated as ritually charged.

The last point here is based on the observations, made in the previous chapter, about the east to west roads crossing the Walbrook. The bridges in this area seem to demark a zone of high ritual activity associated with the stream, including the eventual creation of a *Mithraeum*. One of the inherently interesting aspects of the Queen Street site is that it fell within the bounds of these two roads, near to the main flow of the Walbrook. The known Roman roads in this area would have run close to the Queen Street site. A concentration of wells here seems to add to the intimate relationship this area of the town had with water. Indeed, as has previously been discussed, the bridges of London would have linked the

urban experience into the waterscape; this concentration of wells would seemingly have enhanced this connection for individuals making their way to the main *forum* of the town. This close association with the important Middle Walbrook area suggests that we perhaps do not necessarily need votive deposition in these wells to envisage them as playing an important role outside water provision. If we think about the celebration of the aforementioned *Fontinalia* festival, the impact of the Queen Street area could have been significant. The concentration on well-dressing and spring veneration would have meant this area at Queen-Street, with its accessible ground water, would have been a hive of activity. It would have been a processional focal point for all those entering the settlement. Therefore, at the very least, it would have become one of the most important points in the urban landscape on one occasion each year.

There is one well in this area that appears to possess a traditional votive deposit. A human skull was found in layer two of well 22 (Wilmott, 1982, p. 9), which obviously recalls pre-historic type deposition in watery contexts (not least the Walbrook). It is interesting that this particular well actually cuts through the gravel cap into the London Clay, an exceptional example among the wells of Queen Street. On a practical level, this would have meant water from the gravel could flood into the well, providing a substantial amount of clear water at all times (Wilmott, 1982, p. 5). Yet, it is also worth noting that well 22 is probably the closest of these structures to the Walbrook, perhaps linking with the similar pervasive behaviour of prehistory (e.g. Bradley & Gordon, 1988; Lees, 1988). The profile of the well presents a deeper intrusion into the London Clay, which could be seen as a more profound interaction with the other world found beneath the ground. Furthermore, in a very stoical sense, the extra effort required to delve deeper could have resulted in more meaning for the structure in its working lifetime.

Equally, however, the increased depth of this structure could have meant it underpinned all the other wells in the area on a symbolic level. Perhaps an offering deposited here could link to all the others because of their relative proximity. The appropriation of one area for a concentration of wells and pits within a town is not a regular occurrence. As such, it is hard to know whether the source of the water would have been conceived as coming from a unified source. If this was the case, surely a deposit in one well (especially one deeper than the rest) would respect the sanctity of the underground water.

Moving across the Thames, the ritual nature of deposits in Southwark has been asserted for many years. Merrifield (1987, p. 49) highlighted the special nature of two late second century pits and a well in the area (F28-30) due to their unusual finds assemblages. Following in this vein, recent work by Seeley and Wardle (2009) has explored the environmental evidence from a variety of wells in Roman Southwark. The fill of these structures contained many unusual animal bone assemblages. Indeed, the deposition of dogs, antlers, chickens and exceptional pottery vessels together seem to point towards a ritual interpretation. Furthermore, at Swan Street there was also the discovery of an early Roman well with a partially articulated human skeleton and a number of complete pottery vessels (Beasley, 2006). In many ways, this reinforces the importance that this set of islands held in the Roman period. However, it is debatable how much the majority of these wells can tell us about the Roman period as a whole, as many of the ritual deposits are part of third or fourth century fills. They inform us of a special value to the wells, but are a form of expression that can only be attributed to the later period, and to a destructive phase of the structure. Yet, it seems logical to assume that these wells would have been considered special in life, and thus we must search for ways that this could have been expressed.

In this regard, the distribution of the wells in Southwark may be of importance. Generally they appear to occur close to the main thoroughfares that lead to the Thames crossing (Cowan, et al., 2009, p. 29). Some may have been housed in larger buildings, while others were possibly more open public features. Such grouping could be entirely due to the clustering of occupation close to the roads, but if we are already seeing these wells as ritually charged elements of the settlement in Southwark, the pattern may be indicative of wider processes. Certainly the positioning of the Tabard Square temple complex does give a possible sense of procession towards the main settlement of London. It is plausible, therefore, to think of these wells in a similar vein to the external shaft features mentioned in association with Verulamium. Accordingly, part of the ritually charged movement towards the town centre may have been an interaction with these roadside features, in addition to depositing items on the bridge across the Thames. In this vein, the earlier reference to pit alignments and their association with nearby watercourses is perhaps poignant in regards to these wells. What is particularly interesting is the idea, expressed by Bevan and Rylatt, that pits near to rivers could be linked to the deity of the watercourse.

While we have often thought about wells and their ritual deposits as a more isolated process and point specific process, it is worth considering their place within the larger sense of an individual experiencing the town and linking together elements of the urban landscape. It is possible that the wells at these select sites became the object of votive deposition because they were inherently linked to the nearby water; in both a mental sense of how individuals conceived underground water but also in terms of processing onward through the town, following an ordained and legitimating procedure.

3.5.5 Lincoln (*Lindum Colonia*)

In the previous chapter the prehistory of Lincoln, and its relationship to the surrounding waterscape, was discussed. There is an emerging consensus that much of the future work understanding the transition from Iron Age settlement to Roman town will come via a deeper study of the way this charged watery environment was treated (Jones, et al., 2003, p. 54). The first Roman imposition on the landscape came in the form of the hilltop legionary fortress, in the Neronian period. The heart of the fortress, as with all such military installations, would have been the *principia*. However, what is intriguing about this building in Lincoln is the incorporation of a well (now known as St. Paul's Well – see fig. 38 for location). This is not to say that it is unusual that a well would be located in such an area; Johnson (1983, p. 106) notes other such structures in *principia* courtyards. Yet, excavation in this area has found no proof that this well was a feature built at the same time as the surrounding fortress. Indeed, the well is an enigma that has been largely ignored in the overall interpretation of the settlement. Stocker (2003), in his reconstruction of the *principia*, notes how the large well does not hold a symmetrical position within the building and thus is less likely to be a feature built in the Roman period. It is subsequently also incorporated into the *forum* of the *colonia*, remaining a prominent feature.

Considering the lack of any eye-catching deposits, it is perhaps not surprising that this well has been given scarce analysis. Yet the suggestion that this was an original Iron Age feature that was incorporated into the Roman period settlement warrants far more attention, especially considering the aforementioned local significance of water. As outlined in the previous chapter, Iron Age settlement seems to have focused on the area of the Brayford Pool (Jones, et al., 2003). As a result, we are left with the possibility of this well being a

primary focal point on the imposing hill above the Witham. If we acknowledge, like Jones, the potential ritual significance of the well, it would certainly fit established patterns of sanctuaries on hilltops – like Nettleton on the Lincolnshire Wolds (Farley, 2011). However, what is more intriguing for understanding the development of the settlement is quantifying the relationship between water on the hill and the Witham below. Above we have seen how the conception of underground water is not necessarily something that can be appreciated in isolation. The hill that separates the Upper and Lower city at Lincoln is a steep incline, but once at the top an individual would have had some commanding views of the Trent Valley to the west and the Witham, plus potential sacred pools, to the south (Stocker, et al., 2003). The importance of such a visual link cannot be underplayed. The inclusion of the well within this picture gives us a focal point for the importance of this panoramic view going back into prehistory, and can potentially anchor the creation of the Upper city into the significance of the waterscape.

Further, the well can be interpreted as an amplifier of sorts. It created a point in the landscape where we know people would have had to stop and pause, maybe drawing water, maybe gazing down into the pit, or possibly throwing something into the water below. Furthermore, it seems possible to question the way in which this well water could have been linked to the surrounding waterscape. Was the water of this well fused to the nearby Trent and Witham on a conceptual level? Jones (Jones, 2003b, p. 111) makes reference to the hill of Lincoln being "riddled with springs". In our time such a comment is a casual summary of more complex geological conditions, but for ancient settlers this slope may actually have constituted a central point in a connected, deified waterscape. The well would have given an urban form to this vast natural force; its presence enhancing the water cycle from the high to low ground. Clearly the steep slope, witnessed between the Upper and Lower city of Lincoln, would be a catalyst for water drainage into the river below. With the creation of a well on the summit, part of this process is forced through the fabric of settlement, before filtering down into the Witham. In essence, the well emphasises a conceptual and visual link to the significant surrounding waterscape, but it also amplifies the natural dynamic of water inherent within the immediate topography of the settlement.

Taking all this into consideration, the continued presence of this well within the Roman fortress, and later town, seems like a distinctly ideological element. The Roman *forum* was built up around this well and hence the monumental statues and structures increasingly

framed the experience of drawing water (Steane, et al., 2006, p. 187). The imposition of the original fortress on this ritualistic landscape has sometimes been considered an aggressive appropriation, but the survival of the well may hint at a more informed legitimising goal. This importance may also be reflected in the continued use of this feature into the medieval period, when it became entangled with Christian meaning and, as with the church built in the *forum* area, was identified with St. Paul (Stocker, et al., 2003: 8.1.1). The other known well of Roman Lincoln, the so called 'Blind Well', was also located in the Upper city (fig. 38) and has recently been considered in similar ideological terms (Stocker, et al., 2003). While this feature was discovered by antiquarian excavations it was purportedly a massive structure that could well have supplied the bathhouse. Furthermore, it has been considered more recently as being linked to the aqueduct of the town; therefore, a more detailed analysis will follow in the next chapter.

3.5.6 Colchester (*Camulodunum*/*Colonia Claudia Victricensis*)

Camulodunum was a highly symbolic settlement in the Roman period. As the first *colonia*, and centre of the Imperial cult, the urban framework clearly possessed an ideological potency. Unlike with the other examples of towns outlined above, there have been no definite examples of Roman wells found within the central area of settlement (Crummy, 1984, p. 26). In part, this is because the town lies on a 50 metre contour that means procuring groundwater in the central areas could have been a major undertaking. Yet, such an obstacle does not necessarily preclude Roman well digging, and the evidence of medieval examples shows that it was certainly possible (Crummy, 1984, p. 26). Burgers (2001, p. 58) rightly notes that large areas of the modern town could still be concealing wells that would further embellish the overall picture of water supply. The recent change in archaeological focus in Colchester, to the periphery of the Roman urban area (e.g. Crummy, 2005), may result in this picture remaining unclear for the foreseeable future. On a conjectural level, it is worth noting that there are a number of springs within the town that may have been tapped in the Roman period with well structures (fig. 39) (Crummy, 1984, p. 27).

The lack of examples within the central area is debatably compensated by the intriguing examples found in the immediate surroundings of the Roman settlement. Instances of wells

have been noted at Middleborough, between the North Gate and the Colne; Sheepen, a site mentioned as possessing key significance in the Iron Age and Roman period (Hawkes & Hull., 1947, p. 53); and Chiswell, close to the road leading into the Balkerne Gate (Crummy, 1984, p. 26). The wells of Sheepen are interesting because they are associated with an area that is increasingly being interpreted in ritual terms, with at least four temples built in the Roman period (Hull, 1958). Traditionally these features have been linked into the proposed industrial activities happening at the site, but it is possible that our developing knowledge of the area may alter this interpretation.

The evidence of Middleborough provides us with an intermediary between this area of prehistoric significance and the established Roman town, in a location that seems to have been consumed by the flood plain of the Colne, with areas marked by standing water (Willis, 2007a, p. 121). Indeed, the three wells that have been discovered in Middleborough were located close to the road which left the North Gate en-route to Sheepen itself (fig. 40); thus they are potentially involved in a similar processional link to that postulated between Folly Lane and Verulamium. As with examples in Lincoln and London, it is not the contents of these wells that proves interesting, but instead their spatial relationship to areas of interest in the immediate landscape.[48]

In this regard, it must be noted that the wells seemingly went out of use some time in the late second century; predating this activity the area is associated with a Flavian-Trajanic pottery kiln (Brooks & Crummy, 1984, p. 182). As discussed earlier, such craft work cannot necessarily be conceived in wholly practical terms and is an intriguing forebear that mirrors similar production associations with other wells mentioned above. The wells do not seem to be part of this process within their lifetime, but project continuity between elemental associations of the area (first fire then water); such transformation of purpose might have been a logical progression for people at the time.

A few elements of the surrounding area could cast the wells in a more interesting light. The excavations at Middleborough revealed marshy topsoil from the Roman period that suggested rather waterlogged conditions (Brooks & Crummy, 1984, p. 179). The extent of this is best evidenced in the measures taken to reinforce parts of Building 71 from flooding. The subfloor of Room 4 was built on a thick clay layer, but was subsequently

[48] The wells themselves are timber-lined but there are no significant archaeological finds of note (Brooks & Crummy, 1984, p. 182).

clay lined twice to overcome the problems of water inundation (Brooks & Crummy, 1984, p. 179). Nearby, Room 5 was raised higher to avoid flooding but the problems seem to have persisted, as evidenced by the timber drains that lead back to the building from the nearby street (Brooks & Crummy, 1984, p. 179). The watery association of the buildings in this area is debatably strengthened by the reoccurring motif of sea monsters in the 'Wrestling Cupids' mosaic of Building 70 (Smith, 1984, p. 170).

Furthermore, the Roman street discovered in proximity to all these features (leading from the North Gate of the *colonia*) raises some interesting questions. Brooks and Crummy (1984, p. 183) note how this road is essentially split into two parts, with the road taking a sharp turn towards Sheepen around the point of the aforementioned Buildings 70 and 71. After this, the most important difference between the two sections of road is an apparent difference in usage. From the North Gate to Building 71 there is evidence that the road was subject to repeated resurfacing; resulting in an accumulation of metalling to a depth of well over 1 metre (Brooks & Crummy, 1984, p. 183). Beyond this point the road changes in a manner described as "awkward" by Brooks and Crummy (1984, p. 183) because the surface was shown to be at most 0.65 metres thick. The evidence therefore seems to imply that the westward section of the road (heading towards Sheepen) was used far less than the preceding stretch from the town.

This seems an odd revelation for a main route out of the important *colonia*. It is entirely possible that the westward extension was an unpopular route among a selection of similar thoroughfares. However, the potential meaning inherent in both the Colne and Sheepen is perhaps reason to question this interpretation. The comparative wear of the road suggests that this route was not necessarily being used by continuous commercial traffic; which is fairly out of sync with traditional conceptions of Sheepen as an industrial area. If, on the other hand, Sheepen possessed a more religious/ritual focus, as mooted in more recent accounts (e.g. Willis, 2007a, p. 121), then perhaps this road could have formed a more sanctified processional route. This would be similar to Esmonde-Cleary's (2005) theory of a processional link between the nearby site of Gosbecks and the new Roman period town. Perhaps this westward route was less about commercial transport and more about individuals moving towards Sheepen with ritual goals in mind.

The three Middleborough wells are of course part of this scene. Their presence seems increasingly strange if we see the road to Sheepen as devoid of traffic. Indeed, they do not

seem to be associated with any building; nearby test pits proved to be barren during the excavation (Brooks & Crummy, 1984, p. 156). Combine this with the fact that the kiln, located on site, was seemingly out of use by the time these structures were created and a rather enigmatic picture is formed. The circumstances of the excavation, with contractors stumbling upon the wells while removing earth, means that the evidence has mostly been destroyed. Even so, what has been recovered is proof of a neatly constructed oak lining for one of the wells (Brooks & Crummy, 1984, p. 182). This betrays a degree of care in the building process that indicates this was more than a peripheral structure. Furthermore, there is evidence for these wells being carefully placed within the underlying gravel, which gives a sense of permanence and planning. Surely any pit in this waterlogged area would have provided water; but there is a definite sense of procedure involved in these examples.

These wells will probably be relegated to a small reference when people discuss the Roman water supply of Colchester. Yet, their appearance on this little used road, en-route to Sheepen, perhaps betrays a greater significance. Bearing in mind the examples of other towns such as Verulamium and London, where wells seem to punctuate the experience of people moving through significant landscapes, it is entirely possible that these wells could have served a ritual function over any serious provision of water for the nearby settlement. It is interesting to note that suspected wells at the Chiswell Meadows area occur in a similar position on a route out of the main *colonia*.

Overall, the picture of Colchester's well supply seems to be rather incomplete. The fact that no such structures have been found within the town walls stands in contrast to many of the other settlements analysed; yet, this could be a product of different archaeological imperatives. Regardless, the evidence of Sheepen, Middleborough and Chiswell provides us with a degree of similarity to aforementioned examples. While we cannot draw upon unusual deposition (as with Verulamium), the larger framework of significance inherent in the former bounds of the *oppidum* suggests external wells could still relate symbolically to the conception of the town. On the surface, the wells of Middleborough seem uninteresting. Yet, their positioning along a sparsely populated riverside road, leading to Sheepen, raises questions about their purpose.

3.5.7 Leicester (*Ratae Corieltauvorum*)

In the last chapter it was outlined how the St. Nicholas circle area of Leicester has provided evidence to show an interaction between the Roman town and its waterscape. The suspected '*mithraeum*' has already been mooted as potentially linked to water rituals within the area. However, immediately outside and to the south of this building, a well was also found (see fig. 12); but this has been largely ignored in the analysis of the immediate area (Pollard, 1998, p. 353). Indeed, Wacher (1995, p. 359) makes a note of the feature but does not elaborate any further. This is remarkable as the well produced an exceptional collection of pottery, with a high proportion of beakers, many of which were virtually complete (Pollard, 1998, p. 353). The assemblage was largely of a third century date, but that does not preclude a long life before this well went out of use; in fact, the build-up of pottery may have been part of a closing ritual that is similar to examples mentioned above. The proximity to the *'mithraeum'* and the contents of the well mean it is entirely reasonable to envisage this feature being a prominent part of any ritualistic behaviour in the vicinity. The large sample of beakers may suggest that the act of pouring water, perhaps into the well, or transferring it elsewhere, could have been a particular focus. Clearly, the activities happening in the temple would have had an impact on the conception of this particular feature. The role of water in *Mithraism* has been outlined above and thus this feature fits the general criteria for such a structure. Of course, there is the possibility that the temple could have been dedicated to a different deity (Wacher, 1995, p. 359). The nearby recovery of a figure that appears to be a water deity, plus the possibility of an unusual cult figurine of Mercury (whose depiction may have been combined with a local god) could equally be viable options (Pollard, 1998, p. 355).

Regardless, this is another example of a well located in an important place within a town. The proximity to the crossing, and the primacy of this zone in the Iron Age, creates further intrigue with regard to the conception of the St. Nicholas Circle area in the Roman period. The sculptures recovered from the immediate surroundings seem to incorporate a Celtic style, thus it is worth postulating whether any ritual use of this well could have been predicated on a more local rationale. *Mithraism* itself was not necessarily an early import to Britain, so could have been woven into more traditional rites. At the same time, the debate regarding a firm interpretation of the temple structure raises the question of whether

the true purpose was related to some sort of water cult, an interpretation strengthened by the proximity of the bathhouse with its associated water supply.

3.5.8 Cirencester (*Corinium*)

Neil Holbrook notes that the discovery of small domestic wells is a frequent find in Cirencester (Holbrook & Salvatore, 1998, p. 25). As discussed in the previous chapter, the location of Cirencester lends itself to wells, with accessible water resources. In a general sense, Insula V of Corinium has drawn many parallels to the aforementioned Insula XIV at Verulamium (Holbrook, 1998, p. 209). This is due to the nature of the structures, which have been interpreted as a row of shops/workshops. Yet, this similarity stretches further in that Insula V at Cirencester also has a notable well structure. Indeed, located in shop 3, it was also originally capped by a monolithic well-head, the height of which was subsequently raised by a further two courses of stones (Holbrook, 1998, p. 201). The objects recovered from within this feature were four pieces of lead pipe, three *tegulae mammatae* and the skull of a horse (Holbrook, 1998, p. 204). The lead pipe suggests a wider water infrastructure in this area and the potential that this source could have been systematically tapped to reach a wider clientele. However, the horse skull echoes some of the other pit deposits found in Verulamium, Silchester and Dorchester. As with Insula XIV at Verulamium, the suggestion that craft work could have been taking place within the area could also be important in understanding the well.

Excavations in Insula VI have concentrated upon the large, presumably public, building that dominates the area opposite the *forum* (in Insula I). It was constructed around the middle of the second century and comprised of a central courtyard, 56 metres across, flanked by wide corridors on the south-west, south-east and north-west sides. A colonnaded portico flanked the frontage onto nearby Ermin Street along with a possible internal portico along the north-west range (Timby, et al., 1998, p. 129). An unlined well 0.3 metres in diameter and 2.4 metres in depth was cut into the courtyard of this building (Timby, et al., 1998, p. 133) . The curious nature of this well is increased by the general consensus around this structure being a *temenos* (Timby, et al., 1998, p. 140). While there are no artefacts that could further the interpretation of the shaft, its small size may suggest some sort of purificatory function within the *temenos* area.

A final set of wells worth analysing were found during excavations by Cotswold Archaeology between December 2002 and January 2003, at the meeting point of Insula IV and VII (Brett & Watts, 2008). Here an area was discovered that has been interpreted as a garden; the excavators reached this conclusion through the analysis of soil deposits and the form of nearby buildings (Brett & Watts, 2008, p. 73). Within this garden area two wells were discovered dating to the same period (late first to late second century A.D.). One of these (366) produced a number of oxidised flagons, some of which were substantially complete (Brett & Watts, 2008, p. 74). The excavators put this down to accidental loss, but their appearance echoes some of the examples from other towns above; black burnished ware was also present in relative abundance, something similar to deposits found in Dorchester. Added to this, a pit (473) was truncated by one of the wells (420) and contained scorched red clay indicative of in situ burning. This hints at other processes going on around the wells, possibly very practical (such as cooking or manufacture), but potentially transformative and relevant to the significance of the wells.

3.5.9 York (*Eboracum*)

Evidence of Iron Age activity in the area that became Roman York (Ebacorum) has proved consistently elusive. As such it has been hard to get any sort of picture of the transitional phases of occupation that can be seen in other prominent towns of the province. Nevertheless, to the east of the town, at Heslington East, on-going excavations have unearthed a series of noteworthy Iron Age discoveries. This site is inextricably linked to water, with a number of springheads located in the area that has been explored by archaeologists. Unsurprisingly, there have been a number of wells, or sustained 'water-holes', that have been unearthed in relation to settlement. The most significant of these (in area A1) seems to have been in use during the Bronze Age through to the Roman period (Ottoway, 2010, p. 20). Moreover, a number of important, seemingly cultic, finds have been discovered in association with this feature. The most striking of these was a human skull, which still contained an impressively preserved brain (Ottoway, 2010, p. 11). In addition, the discovery of a Late Bronze Age hollowed-out wooden cylinder and a fourth century Roman coin hoard have also been interpreted as showing sustained ritual type activity in relation to the 'water-hole' (Ottoway, 2010, pp. 20-21). There was also a further

small Hadrianic coin hoard that was found close to another springhead (Ottoway, 2010, p. 21).

In fact, as excavations continue the multi-period association with water features is becoming increasingly apparent. The Kimberlow Hill area of the site appears to have been a particularly rich area of underground water, with watercourses probably running down the slope to form a pool. A Roman stone-lined well was found on the high ground over looking this zone. Furthermore, there is copious evidence for Bronze Age water features, ranging from unlined pits to more formalised wattle-lined wells (Chapman, et al., 2012, p. 298). As yet there is no evidence on a comparable level to the skull mentioned above, but as the excavations are on-going, the significance of small finds is yet to be completely discerned. What can be ascertained from these excavations is a distinct tradition involving well construction within the environs of the subsequent Roman town. The continued respect that appears to have been afforded to, principally, the 'water-hole' feature is particularly relevant when we consider the conception of wells in Eboracum. Also, it is very possible that similar evidence is obscured, or has been destroyed by, the substantial post-Roman activity and accumulated layers of York.

While Iron Age features of this ilk are not apparent in the town, archaeologists have found a substantial timber-lined well; this dates from approximately the second century. It was located at modern Skeldergate (fig. 30 for location), close to the bank of the Ouse (in the *colonia* area of the town), and is remarkable in terms of its preservation. The well extended some 6 metres and produced a number of well-preserved finds (Ottoway, 1993, p. 90). The most relevant, for this discussion, was a collection of around 20 shoes in the lower fills (MacGregor, 1978, p. 61). Such deposition may appear unremarkable, but it has been linked to a pattern of votive offering in temperate Europe and beyond (van Driel-Murray, 1998). Indeed, van-Driel-Murray has postulated that the liminal nature of the foot, as an extremity of the body, is something that perhaps lends itself to identification with watery contexts like wells. Moreover, she has also outlined how the deposition of shoes could increasingly (during the Roman period) become a substitute for the human sacrifices of prehistory (van Driel-Murray, 1998, p. 138). Considering the skull from Heslington East has been interpreted in sacrificial terms, it is possible that the Skeldergate well could still be fundamentally linked to Iron Age rites despite its later construction.

The potential significance of such water features in this area of Britain is also strengthened by evidence from nearby Shiptonthorpe. This Roman period settlement was built around the important road that connected York and Brough-on-the-Humber. Some of the structures discovered by the recent excavations would appear to show an interesting entanglement of local and imported building techniques, combining the British roundhouse with a more continental rectangular form. Millett (2006, p. 311) has described this as a good example of cultural hybridity and even suggested the orientation of these buildings could have been a deliberate acknowledgement of their mixed cultural genesis; the rectangular sections appeared to be addressing the Roman road, whereas the circular aspects were seemingly more hidden from view when on the primary thoroughfare. That notwithstanding, the most intriguing feature of Shiptonthorpe was an early fourth century 'water hole'. Despite the obvious practical functions, as with the example from Heslington this pit appeared to be strongly associated with ritual activity (Millett, 2006, p. 315). This was evidenced by the deposit of a number of complete ceramic vessels in the primary fill. The faunal assemblage was also striking with a series of skulls (bull, stallion and two dogs) as well as a pair of cattle mandibles and a horse's front right leg (Millett, 2006, p. 314). Further to this, after the water hole had been filled in the fourth century, there continued to be an association with animal remains with an additional five burials (four pigs, a young cow and a calf) deposited over the area where the water hole had once existed (Millett, 2006, p. 314).

While this is a late deposit at a peripheral site, it does bear comparison with the Heslington features mentioned above. Moreover, as a roadside settlement, the activity at Shiptonthorpe may be indicative of the spread of ideas from the important symbolic centres concentrated on in this thesis. This road led directly from York, through Brough and onward to Lincoln; the evidence from the former and latter towns perhaps suggests potential for undiscovered water traditions closer to the Humber. The character of the settlement, with an important mixture of local and continental building techniques perhaps further underlines water as an important cultural meeting point throughout the Roman period.

3.5.10 Other Towns

Chelmsford (Caesaromagus) has produced evidence for a number of votive shaft deposits. Outside the town a full horse burial was discovered in 1987 (Frere, et al., 1988, p. 458). Added to this, to the north west of the *mansio* there was a disused well (see fig. 20), with a number of new shafts dug into it, housing the skeletons of at least seven foetal lambs, a horse skull, raven and cat bones (Drury, 1988, p. 9). These animals (particularly the horse) echo Iron Age tradition, even if Caesaromagus lacks a defined prehistoric precedent. This feature was associated with a probable temple structure, so could have played some sort of public role within the life of the town. However, the lack of archaeological evidence at Chelmsford makes further interpretation difficult.

At Canterbury (Durovernum), excavations in the Marlowe Car Park revealed evidence for late Iron Age occupation. This consisted of a triple ditched enclosure surrounding two roundhouses (Blockley, et al., 1995, p. 27); among these features were a collection of pits and at least one firmly identified well (fig. 9) (Blockley, et al., 1995, p. 41). A fine group of tinned-bronze horse harness trappings was found in the upper fill of one of these pit features (Blockley, et al., 1995, p. 44). Apart from this, the finds were not suggestive of any particularly special activity taking place. Nevertheless, it will be outlined in subsequent chapters how this area became a focal point for water in the Roman period. In fact, the bathhouse was one of the most important features of the Marlowe excavation. Therefore interactions with groundwater at an early date, in this area, could have played a role in the subsequent form of the Roman town.

At Caerwent (Venta Silurum) there are a number of wells that contained suspicious deposits. The aspect of these features that differs from many of the above examples is their appearance close to houses. These are the sort of wells that one would usually interpret as being inherently practical; they would have served the daily water demands of the households in their proximity. Yet the list of objects discovered in these wells has much in common with those found in towns like Silchester. A well to the east of house VI N contained three fragments of a human skull, several ox skulls, other bones, pieces of pottery and fragments of a bucket (Ross, 1968, p. 262). Likewise another, to the east of House VIII N, housed the skulls of five dogs; a large dog skull was also found in a similar feature near House IX. Ross (1968, p. 262) also mentions another two wells that contained

pewter jugs, a seated deity and a collection of iron tools. A pewter plate ornamented with a wheel was also recovered; it seems possible that this could be referencing a Celtic deity like Taranis. Indeed, in general these finds are in line with the consensus of Iron Age type votive deposits, suggesting we may be detecting residences belong to people local to Venta Silurum.

Ross also notes three wells at Wroxeter (Viroconium) that she deems as being potentially of ritual significance. Again, the examples she refers to are derived from early twentieth century excavations, therefore we do not necessarily have precise records of what was discovered. The finds included ox bones, an iron axe, iron knife blades, a pair of bronze tweezers and a number of whole pots (Ross, 1968, p. 274). These wells were found in the Bushe-Fox excavations of 1912-14 which studied the area just south of the *forum*. This seems to have been made up of houses and shops; so we again see a zone where there would have been practical reasons for a well. It is somewhat uncertain whether these items represent an expression of Iron Age beliefs, but the weapons are debatably the most vivid in this regard.

3.6 Evidence from Carrawburgh

While this thesis is concentrating on a number of prominent Roman towns, in the case of wells it is worth briefly highlighting activity at the fort site of Carrawburgh (fig. 41). This site lies between the forts of Chesters and Housesteads, around 25 kilometres to the west of Newcastle-Upon-Tyne. The ground west of the fort was marshy, owing to a convergence of springs and small watercourses. In this area a prominent well was discovered. The location of the feature has led archaeologists to interpret its initial purpose as a drainage feature built to siphon off some of the groundwater from the area, so as to facilitate the completion of a *vallum* (defensive earthwork). After the fort was established, Allason-Jones and Mckay (1985) see the purpose of the well moving away from practicality thanks to the beliefs of incoming soldiers. Along with the discovery of a nearby *nymphaeum* and a *mithraeum*, the well was found to contain a mass of coins and other objects of bronze, bone, pottery, glass, lead, leather, jet and shale. In addition, all but one of the inscribed stones bore the name Coventina. While the spelling was often different, it is clear that a single deity was being acknowledged within the well. The depiction of the goddess in a characteristic reclining pose implies this was certainly a water deity. Furthermore, it

appears likely that it was derived from the local population and adopted (in some form) by the incoming soldiers. The interesting aspect here is that, presumably, the fort represents an area where there was distinctly less opportunity to interact with a large resident local population (as opposed to some of the towns mentioned above). Yet, even here, we have evidence for an entanglement of beliefs linked to underground water.[49] Moreover, this example underlines how reverence for certain water features does not preclude their practical function.

3.7 Discussion

The above sample of wells provides enough evidence to assert the significance of these features within urban contexts. There are a series of examples that manifest 'classic' votive offerings, and are almost certainly involved in ritualistic activities of some sort. As one would expect, there is not necessarily a definitive type of item that links all of these wells/pits together, but instead a general appearance of similar artefact types. The metalwork, found in Silchester and Southwark, obviously links well with the known traditions present in Britain before the Roman conquest. Perhaps, in some ways, this is what one would expect to find; it is a particular trend that has been woven into popular folk-lore. It must also be noted that many of the wells from these two areas, that contain metalwork, were of moderately late dates. As such, it becomes increasingly hard to link these examples into previous Iron Age traditions; even if the activity was actually indicative of the strength of tradition.

However, there are also a number of wells/pits with deposition of interesting pottery or animal bones. Samian ware, for instance, is notable in many of the wells highlighted above; it is also often accompanied by other wide-form pottery types. This material culture is sometimes also combined with a high frequency of animal bones, some of which may be particularly significant. The well at Verulamium is a good example of this type of depositional practice and could be signalling the involvement of these features with a continuation of the Iron Age ritualistic feasting culture. Furthermore, it may point towards the conception of wells as particular focal points for hybridity and liminality within the

[49] Similar reverence of wells has also been noted at Newstead Fort, with a number of unusual deposits – even complete human skeletons (Ross & Feachem, 1976)

townscape. If the well was a gateway between worlds, perhaps items equally betwixt defined perception were seen as suitable deposits.

The occurrence of samian may seem inexplicable but, as an imported 'Classical' ware with uncertain function for the indigenous populations of provincial extremes, it could be seen as rather liminal. However, the known trend of dog skulls appearing in wells and pits could be a far more prominent acknowledgement of such a value. After all, the dog would have been something of a liminal (or hybrid) animal, that would have been particularly visible in antiquity; it was neither completely wild (like its wolf relatives) nor completely domesticated (certainly it would fend for itself if required). In addition it is known to play the role of a guardian in the classical tradition (e.g. Cerebus), meaning it would have been associated with entrances and transition. Perhaps these attributes made dogs a particularly suitable offering for rituals involving wells. One could perhaps make a similar observation about horses; the remains (and paraphernalia) of which also seem to be prevalent in these contexts. Of course, there is also a strong 'Celtic' tradition involving that animal, and thus, potentially a host of beliefs that could have led to deposition of equine related material.

However, concentrating on these 'tell-tale' deposits of material culture is fraught with problems. Firstly, we grossly underestimate the potential of these features by isolating them. Too often we explain votive offerings as a means to an end, without casting our nets wider into the possible reasons for their appearance. Not only does this objectification of ritual activity limit analysis of wells that possess classic votive material, it also severely limits the acknowledgment of diversity within such behaviour. Water is such a sensory phenomenon that votive offerings were probably only one of the many ways in which people appreciated it in the Roman period. The '*forum* well' at Lincoln is a relevant example of the drawbacks inherent within our approach. It has no real deposits of note, but it nonetheless could have been a profound expression of beliefs concerning water in its immediate landscape. The positioning of this well on high ground, above a particularly active springline, with visual links to the important Brayford Pool area, and within a wider landscape rich with examples of water veneration, makes it debatably more important for archaeologists than many celebrated 'votive' wells in other locations. There is also the important issue of how enduring wells were conceived in the past. A great deal of the votive deposition we encounter is part of the act of closing a well. Therefore it is possible that these deposits could be related to essentially negative events in the life-cycle of the

feature (i.e. it stopped working). A well that maintained a good source of water, over a long period of time, may have accrued various different associations but never required dramatic closing because it was so successful.

3.8 Conclusion

This chapter has sought to establish the relevance of studying wells as fundamental parts of the important urban waterscapes established in the previous chapters. Their portrayal in archaeological literature is often polarised towards either practicality or, at the other extreme, marked veneration. Principally a well is judged on the appearance of key votive type items; if they are not apparent then it is generally seen as a practical element of water supply. It is an intriguing fact that such judgement is not equally made about springs; they are continuously interpreted as features with ritual resonance, even when a lack of direct archaeological evidence is apparent. This difference in treatment is a product of separating the well and the spring on the basis of one being 'natural' and the other 'man-made'. However, as seen above, this separation is not easy to locate in the past. The classical sources seem to have been at pains to highlight a sense of universal importance for water. Certainly many of the attributes given to springs are also found within the definitions of wells. Moreover, there is also the reality that many springs would have been harnessed with a structural framework, which would not appear to have altered people's perception of them at the time.

With these ideas in mind, even in a Roman context, it becomes more sensible to assess wells as being linked to a wider waterscape; they were hybrid features that elude strict definition as 'natural' or 'man-made'. In this way, like the bridges of the previous chapter, these features could be key interaction points with the meaning-laden flow of water through settlements. Subsequently, it also anchors their meaning within the local conception of this element; something that is manifest in the Roman army venerating 'Celtic' deities at such points. As a result, even a well without clear votive deposits, could have had a profound effect on the surrounding urban space. The use of this water in nearby buildings or activities could also have been affected by the beliefs attributed to the well. This casts the decision made by some British towns, such as Silchester, to predominantly use well water as a choice not merely borne out of expediency.

With wells being potentially an access point to a symbolically powerful waterscape we can see how motivations behind their construction and use could also have been hybridised. In places like Lincoln, strong incoming influences may have used (and amplified) the local importance of wells to establish a degree of legitimacy among the resident population by incorporating them into key points of the upper city - in addition to appeasing their own strong religious connection to underground water. At other settlements like St. Albans or Silchester, we may be seeing more locally driven incorporation of wells but into the framework of new incoming structural forms. By acknowledging these hybrid attributes to wells we can start to appreciate the impact they had on their surrounding context and subsequently move away from a strict definition of their worth based on the recovery of accepted votive type items.

Chapter 4: Aqueducts and Piped Water

4.1 Introduction

The aim of this chapter is to extend the logic of the thesis further into the realms of 'man-made' water. While the wells of the previous section were examples of water procurement, the construction of aqueducts/conduits is the form of supply we most associate with the Roman town. This chapter will look to critique the logic of separating these features from the natural significance of water that has already been outlined. It will be argued that by separating 'man-made' and 'natural' water we are actually relying on a modern rationale rather than seeking an understanding of the past. By breaking down this false dichotomy, we can view this water as another meaning-laden flow that was bound into the fabric of urban experience. Furthermore, the conscious manipulation of water that these structures represent can help us to break down the preconceived associations regarding water consumption within Roman settlement. If the waters conveyed by aqueducts were accorded similar value as that given to the rivers and springs from which they were sourced, the dissemination of the water throughout a town may have been hugely significant beyond its readily apparent practical importance. Moreover, the meaning attributed to such water could have been influenced by local prehistoric beliefs. With this in mind, we can further understand how local waterscapes could underpin the perception of individuals experiencing a 'Roman' town in Britain.

4.2 Background

In the previous chapters, there has been an exploration of urban interaction with over-ground river water (bridges) and underground sources (wells). It has been outlined how both of those elements of the waterscape have suffered from (slightly different) legacies of archaeological interpretation, but are unified by the general sense of projecting modern values of water onto the settlements of the Roman era. The conception of the role aqueducts played within settlement represents the epitome of this approach. On a basic level, the study of Roman towns has often been drawn towards monumental archetypes; the baths, *fora* and theatres have served to define towns as 'Roman' as well as dictating

their relative economic and political importance within the Empire. This is illustrated well in the work of both Wacher (1975; 1995) and Rivet (1958); authors that have become gateway sources for anyone wishing to gain a general understanding of urban life in Roman Britain. The analysis of aqueducts thus satisfies the traditional pursuit of elements of imperial largess and monumentality. However, in our literature they have represented more than just scale; they are a vivid example of technological sophistication, a concept inseparably intertwined with our modern perception of civilisation. Indeed, the classic imperial justification of Empire, which claims an improved standard of living and prosperity as a perk of occupation, is most intimately related to such technological advances. In this regard, the provision of a water supply has been portrayed as a functional requirement for the full transformation to a Roman way of life. So the aqueducts have been seen as primary 'enabling' structures that moved civilisation 'forward'. Subsequently, the introduction of piped water in the Roman era has been bookended by periods of 'backwards existence' in prehistory and the medieval period. As such, the study of these features is a vivid example of how teleological theoretical approaches remain entrenched within the psyche of many archaeologists and historians.

The construction of roads within the Roman Empire represents a similar technological achievement that has been portrayed as enabling 'higher living'. However, the provision of water remains an issue that the 'First World' often reaffirms as its enviable advantage. Indeed, is there a more pivotal term than 'running water' in constructing our definitions of civilised urban living? We are bombarded with messages about the 'Third World', with its lack of water supply creating a situation whereby disease, poverty and danger abound. Charitable organisations inform us how one simple water pump could miraculously alter the situation of a whole settlement. There is undoubtedly an element of truth to the power of water to nurture life, but this is not a rapid process. Indeed, this portrayal of water is fundamentally linked to the aforementioned alienation from the procurement of water in nature (section: 1.10). In this Third World scenario, we are often shown natural water as muddy and disease-ridden. In contrast, the water from newly installed pipes/pumps is seen as glistening 'good' water that is bountiful and pure. There is no sense of where this new water came from, or how the pump will be constructed; it is all presented to us in rather miraculous fashion. While such campaigns clearly have good intentions, they also serve to highlight some rather stark trends in Western thinking. The first, is that a separation of a

'man-made' water and a 'natural water' is created, with the latter taking much of the negative baggage. The second is that, because of the lack of relationship to the means of water production, we actually devalue the population living in the settlement. By inferring that this water is easily found, we question the independent ingenuity and organisation of the community in question. The result is a strong example of how thoughts regarding water continue to have a hugely colonial tone.

Certainly when you combine these sentiments, it is no surprise to see that the interpretation of aqueducts has not necessarily expanded in scope. Their appearance in Roman towns often seems to be cast against the lack of such structures in pre-history, thus almost underlining the supposed epoch change. Furthermore, we have even tried to explain the fall of the Roman Empire as a miscalculation in such systems, making them out of lead (Waldron, 1973; Nriagu, 1983). Here they are shown almost as the alpha and omega; the beginning and end to the civilised Roman way of life. This has even led writers to question the 'Roman-ness' of British towns based on the technological sophistication of their water supply, or lack-there-of. Therefore primarily the subject has been bound to dialogues of Romanisation. This has obviously become increasingly problematic over the last twenty years as the theoretical dialogue in Roman archaeology has increasingly sought to distance itself from such approaches (Hingley, 2000; Hingley, 2001; Hingley, 2005; Creighton, 2006; Mattingly, 2006; Rogers & Hingley, 2010). Consequently, a situation has arisen where aqueduct studies have become isolated from the wider debates of the subject, with no real satisfactory explanation for their up-take in provinces like Britain. The study area has thus turned inward and looked to technical and practical elements of these structures. Indeed, Hodge (1992; 4) lamented the lack of true technical analysis on the workings of aqueducts, chiding the past efforts of archaeologists. However, it seems that twenty one years on from that contribution there could be a similar sentiment expressed about the technical perspectives which now dominate aqueduct studies. Added to this, while the emphasis on technical detail may appear to be theoretically neutral, the reality is that by concentrating on such elements we only serve to bring these structures further into the rationale of the twenty-first century.

Some may argue that this type of approach is actually due to our main classical source, Frontinus. His *De Aquaeductu urbis Romae* has become a focal point for any study of the subject. Frontinus was an engineer of sorts, appointed to maintain the aqueducts of Rome.

Therefore, writers have seen modern technical analysis as a natural extension of his treatise. The text is known as a *commetarii*, which implies a set of notes or records that could either have been for wide consumption or possibly more personal consultation (Rodgers, 2009). Traditionally writers have conceived this text as a dry systematic account of water supply in Rome (Goodyear, 1983, p. 672; Hodge, 1992, p. 16). In this regard, many have looked to the account as a sort of instruction manual that could have been consulted by people assuming the same role as the writer. Yet, as Bruun (2012, pp. 16-18) notes, if we assess the text as an administrative handbook, it is rather lacking in completeness; DeLaine (1996) has questioned whether this was actually the intention of Frontinus in the first place. Indeed, she has put forward the notion that the text could in fact have been a political statement on behalf of Frontinus, possibly even delivered to the senate as a speech. Indeed, there is a possibility that *commentarius* was in fact a *monumentum* to Frontinus' extraordinary political achievement of sharing a third consulship (DeLaine, 1996, p. 136). Instead of concentrating on the specifics of this achievement, which would naturally have to deviate to focus on Trajan (the man with whom he was sharing the consulship), the subject of the *curator aquarum* could emphasise the power of Rome and also the tradition of service to the state by great men. Frontinus could be framing his own achievement in this context. This would have resonated well with a senate which, in the wake of one of their own number (Nerva) becoming *princeps*, thought the power of their chamber was once again on the rise (DeLaine, 1996, p. 136).

This fundamentally alters the way that we approach Frontinus and his contribution to the subject. As DeLaine notes (1996, p. 139), the practical nature of the text could be much more about establishing notions of power and wonder to an audience not entirely familiar with such details. In turn, the more vivid historical sections, and social comment, make overt use of the physical element of water to frame Rome's ongoing legacy of power. This is shown in the way Frontinus describes each aqueduct of the city, noting semi-mythical origin stories, linking them to famous Roman figures, and then rationalising them as working structures in his own time. For instance, the Aqua Appia (the first of the aqueducts of Rome) was established at the time of the Samnite War, shared a creator with the Appian Way, starts at one of the famous properties of Lucullus, then joins with the conduit of Augustus, before reaching the city at the Porta Capena (famous for association between the mythical King Numa Pompilius and the Nymph Egeria) (Frontin. *Aq*. 1.5). All

these prominent names and places are combined with practical descriptions of distance, which bring the reality of the aqueduct into the present. Therefore, Rome is woven into its mythical landscape by the movement of water. With this in mind, we can possibly re-evaluate the most famous passage of the text: the comparison between the "indispensable aqueducts" of Rome and "idle Pyramids" and useless works of the Greeks (Frontin. *Aq*. 1.16). This has been widely regarded as a 'typically Roman' comment, deriding the more frivolous monuments of the East. A working monument like the aqueduct is far more in line with the image we have of the industrious and practical Empire. Yet, maybe this is Frontinus highlighting the essential active ideological power of the aqueducts themselves. Instead of monuments such as the pyramids which are limited to defining one area, the water of the aqueducts can be productive throughout the city of Rome. The powerful associations of the past can continue to be woven into the new creations of Frontinus' present. This interpretation rests on the recognition that productivity is not just limited to practical economic principles, especially not in the Roman period. Consequently, basing the study of aqueducts on practical supply is limiting in the extreme.

4.3 Evidence from Rome

To an extent, the realisation that pragmatic supply was not the sole reason for an aqueduct has been recognised. For example Hodge (1992, p. 5), in the introduction to his copious book on Roman water supply, is quick to chide the 'social historian' for putting an essentialist spin on the aqueducts of Rome; he sees them as an expression of luxury. Certainly when we look at the example of Rome it seems abundantly clear that the (eleven aqueduct strong) water supply was largely not for simple domestic consumption. It has been estimated, using the figures left to us by Frontinus, that the total water supply being provided by Rome's first nine Aqueducts (in total) could have been around 600,000 m^3 per day (Kleijn, 2001, p. 58). Considering the proliferation of additional wells and water sources that would have been a feature of any ancient city (Hodge, 1992; 5), this figure is colossal.

However, following this course of logic to its end presents us with some rather unsatisfactory conclusions. In part this is because the cost of constructing such structures would have been vast, estimated at up to three million sesterces per kilometre (Leveau, 1991; Chanson, 2004). Combine this with the need for regular upkeep, and there would

have been a massive amount of money being outlaid. Obviously then the aqueduct is the product of wealth and power; the cost of those in Rome and Southern Gaul transcending the expense of most other monumental features. If these structures provided nothing more than luxury, then one would have essentially been left with an increasingly burdensome set of 'white elephants'.

The immediate association we make with such activity is the decadent elite lifestyle often portrayed as characteristic of the Imperial period. If aqueducts were a product of this, it seems odd that we hear no voice of opposition to them. There was a tendency, on the part of some writers of the Imperial period, to portray this decadent lifestyle as a negative development away from a golden Republican era. Yet, in the case of aqueducts, the Imperial period Aqua Virgo is often mentioned together with the High Republican Aqua Marcia (Stat. *Silv*. 1.5), with both treated equally. In addition to this, the aqueducts seem to be generally free from any negative association with so called "bad" Emperors. So while Nero's '*Domus Aurea*' was seen as an embarrassment after *damnatio memorae*, his extensive reworking of the Aqua Claudia (which provided water to the *Domus Aurea*) endured without any negative repercussions.

With this in mind, it is most interesting to analyse our thought process. The concept of 'luxury' is an outcome that naturally aligns itself with an expression of power. But the way we have reached such a result is by largely enforcing our own logic on the issue. In the twenty-first century if we see vast amounts of money being spent on something with little practical value we are often slightly repulsed. Nonetheless, such feeling would be borne out of our own rationalisation of the elements that make up an aqueduct, in particular the water. As noted in previous chapters, the water of the modern world is often silent, with meaning imposed upon it; therefore it can be seen as a strict commodity or resource. As a result, we are far more inclined to see the water from aqueducts as an element concerned with economic rationale of requirement and surplus. The idea of 'waste' is only achieved if you impose defined urban requirements on the incoming commodity. It has already been shown how in antiquity the conception of water is far from this twenty-first century ideal. The underground and over–ground water of this time period seemed to be meaning-laden and was often given a personified form. Furthermore, through interaction with the increasingly urbanised form of the Roman town, we have seen how definitions of 'man-made' and 'natural' are unsatisfactory when we consider such a waterscape. If this is the

case, then it seems logical to acknowledge the potential for similar hybrid meaning being associated with the water of aqueducts. The result of this admission is that it becomes substantially more difficult to develop a concept of 'waste'. Thus, ideas of excess and luxury become harder to quantify.

In this regard, perhaps the most startling aspect regarding the analysis of Roman aqueducts is the lack of attention we have given the actual water. This may seem like a rather paradoxical comment considering the nature of the subject. However, while many archaeologists and engineers have given us wonderful and copious accounts of the structural elements of aqueducts, water has been a statistic needed to fulfil an equation. A greater exploration of the beliefs and associations attributed to water in the past could alter the way we view aqueducts; changing them from a simple sign of wealth, to an active expression of tradition and ideology. Indeed, out of all the elements of the urban waterscape, piped water could be the most valuable expression of hybrid identities. The malleable nature of its course, and its thorough interaction with so many parts of a town, could have underpinned the perception of a settlement within the minds of individuals in the past.

4.4 New Theoretical Perspectives

4.4.1 'Living Water' v 'Man-Made' Water?

As noted above, the disparity in the portrayal of Roman aqueducts, as opposed to other sources of 'natural' water, has probably been a product of an overall theoretical tendency to link the Roman era to the modern world. Primarily this is based on the rather tenuous idea of 'living water', championed by Wissowa (1912, p. 180). This is the thought that the moving water found in nature held enhanced meaning for those in the Roman world. On the surface, this seems like a different debate to the modern norm described above. Yet, according to Wissowa, the meaning of water would have been lost once it interacted with the urban landscape. Thus, the power inherent in his water is still silenced, and unable to impose meaning upon 'man-made' structures. The problem is that the literature does not give any sort of conclusive evidence to separate the water of aqueducts in this way. Indeed,

it is essentially confirming the above logic, so the meaning of water in an aqueduct becomes defined by the surrounding structure.

Fundamentally, when we look at an aqueduct we are seeing a conduit for water that in all probability starts at a spring and (eventually) ends by draining into a larger river. Another important aspect of this is that seemingly many aqueducts were flowing day and night (Kleijn, 2001, p. 37). This would have meant ample overflow from the many public fountains, turning the streets into small streams draining into a river like the Tiber; something that may have contributed to the high pavements and stepping stones across the roads found in Pompeii (Hodge, 1992, p. 341). This journey entails any number of different uses and directions for the water, but essentially it is one based on the logic of nature. Consequently, it does not necessarily follow that there would have been a radical change of meaning for water if it had travelled to the city by aqueduct. Certainly the representation of these conduits on Roman coins does not imply an erosion of meaning for this water; the most common depiction is that of a reclining deity (fig. 42), the same as representations of rivers discussed earlier in this thesis. The surrounding structures of the respective aqueducts are shown on these coins, but they are not the dominant features within either image. The reclining figure remains unbowed and strong, with no hint of eroding influence or power.

4.4.2 The Source of an Aqueduct

These observations are reinforced when we start to analyse some of the sources of Rome's aqueducts. Frontinus may be primarily concerned with the function of the conduits in the actual city, but he makes some rather intriguing comments about some of their sources. The waters of the Aqua Virgo, for example, were apparently named because they were discovered after a young girl pointed soldiers in the direction of the spring. A temple was duly established at the site, within which a painting documents the origin of the aqueduct (Fronin. *Aq*. 1.9-10). This source would appear to have been revered in a similar way to other springs. Actually, the painting within the temple ties the foundation of the aqueduct and the spring together; indeed, the building seems to have been erected to this end. There is no separation, in terms of the description, that would lead us to believe the aqueduct lessens the significance of the spring.

Another account from Frontinus is that of the Aqua Claudia; which he notes is sourced from the Curtian and Caerulian springs (Frontin. *Aq*. 1.13-14). The fact that these two springs are described with definite names suggests they are of renown; the latter clearly implies a perceived purity ("The Blue"). The strength and beauty of these springs is consequently extended to the aqueduct itself, which is described as having an almost unrivalled excellence. Suetonius follows this pattern declaring *"he [Claudius] brought to the city on stone arches the abundant founts…one of which is called the Caerulius and the other Curtius"* (Suet. *Claud*. 20). The waters of the Aqua Marcia are treated in much the same way with Pliny the Elder deeming it the "*glory of the city of Rome…among other divine bounties"* (Plin. *HN* 31.41). Martial mirrors this sentiment proclaiming "[the Marcian waters] *shine so brilliantly, and are so pure, that you scarcely suspect any water to be there"* (*Epigrams*. 6). This all comes together to suggest that these 'man-made' structures did not seem to effect the Roman perception of water.

Recently, archaeologists believe they have found the main spring source of the Aqua Traiana. Beneath a small Christian chapel an ornate chamber was found, decorated richly in Egyptian blue with ornate brickwork that would have been befitting of an imperial visit. Indeed, it is possible that Trajan may have inaugurated the opening of his aqueduct in person. Regardless of this, the discovery seems to conform to the description of the Virgo's source, in that the function of the aqueduct is mixed with painting and sculpture creating a celebration of the water source (Taylor, 2012). Undoubtedly, the Traiana's source would have been even more impressive in its prime, with statues and other decoration covering the chamber. We have no reason to think that other celebrated aqueducts would not have had comparable attention. The implication, therefore, is that the Anio Valley, where many of Rome's aqueducts were sourced, would have been littered with these chambers celebrating the birth of water from the ground.

Added to such ornate display, there was also a definite physical relationship between spring and aqueduct that strengthened their association. The common practice, at the selected source, was to create many different channels tapping the waters (Hodge, 1992, p. 77). This would have meant a series of tunnels being drilled into the aquiferous rock. The water, impregnated within the rock, would then percolate through the tunnel walls and be channelled into a main basin (Ashby, 1935, p. 95). The Marcia apparently had numerous such channels that combined to form the main body of aqueduct water. These tunnels

would reach into the stone and become unseen, enveloped by the natural world. The relationship would have been far more profound than the diversion of a single source.

Furthermore, these aquiferous rocks were not neutral elements in the Roman tradition. The remarkably changeable nature of tufa, for instance, (going from extremely soft when first formed to a more firm rock-like texture) is fascinating even with our knowledge today. Its formation by springs (many in the area of Rome) and its absorption of water would have understandably led to unusual beliefs. In fact, it has been suggested that, the use of such rock in building could have been seen as a way of transferring the sacred area of extraction to a new construction. In this vein, Davies and Robb (2002) have noted the minor tufa inclusions in Roman temples (and subsequent churches). While the concept of a completely tufa based building may seem more noteworthy, the deliberate placement of a few blocks of this rock into a building composed of another dominant material is certainly intriguing.

This idea is substantiated, somewhat, by a series of references to tufa by Ovid. In the *Heroides* (*Her*. 15), *Metamorphoses* (*Met*. 8.568) and the *Fasti* (*Fast*. 2) he makes clear mention of the rock in the abodes of river gods and nymphs. The former of these references even makes a favourable comparison between rough-hewn tufa and the finest Phrygian marble. This running theme of Ovid (Barolsky, 2005) certainly suggests a deep association between rock and water within Roman lore. In terms of this thesis, that means the structures of these aqueducts were deeply woven into a powerful natural landscape and could potentially project this meaning along their course, just as has been suggested for rivers.

4.4.3 A Confluence of Aqueducts

Conceiving the aqueducts in this fashion also casts an interesting light on some of the structural elements of the actual built conduits. In chapter two it was outlined how river confluences were particularly important parts of any waterscape. Similarly, sometimes the waters of a particular aqueduct would have originated from numerous different sources and merged together as one. One of the notable examples is the Eiserfey junction chamber, on the Eifel aqueduct approaching Cologne (fig. 43). Here waters from Uft and Weyer merge together into the main water flow in an open chamber. Hodge (1992, p. 122) suggests the

whole appearance of the structure lends itself to public visit and recreation. There is a similar feel to the Nimes *castellum*, which is the hub where the water was split for different purposes in the town (the reverse way of looking at a confluence). The construction of these elements then plays into this proposed parallel with rivers, where areas of confluence create a spectacle deemed significant.

The example of Nimes brings us to an interesting juncture. If we embrace this conception of the aqueduct as a water course that, while directed by man, maintains the significance of its source in nature, then their relationship to the Roman town becomes pivotal. The enviable literary sources we possess for the city of Rome can give us pause for thought. Firstly, while describing the Aqua Marcia, Frontinus makes an interesting reference to its controversial introduction. Apparently, the Sibylline Books were consulted and it was deemed not right for the Marcian waters to be introduced into the capital (Frontin. *Aq*. 1.7). If one portrays the aqueducts as purely functional, this episode is slightly puzzling. There seems no reason for these oracular utterances to deny the supply of fresh water and so, at first glance, it would to be an example of political rhetoric. Yet, if one emphasises the cultural associations of water, discussed above, then the first waters brought into Rome from the outside would have had massive significance. In this light, it would be understandable if a conservative document (which all such codified principles become over time) would have been resistant to such dramatic change.

In addition to this, while regaling the aforementioned story of the Aqua Virgo, Frontinus tells us that the waters of the said aqueduct first entered the city on the ninth of June (Frontin. *Aq*. 1.9-10); this detail is not elaborated on making it rather conspicuous, perhaps implying an obvious importance to the Roman reader. This suspicion is strengthened with some study of the calendar of religious festivals which indicates this coincided with the *Vestalia*, a very important occasion in honour of the goddess Vesta. As the name implies, the goddess was the titular deity of the Vestal Virgins. It has already been mentioned how this group had a ritualistic involvement with water (see section: 1.11); couple this with the aqueduct being their namesake and surely this must be more than a coincidence. It seems strange to think that opening of the Virgo would have been done quietly while people celebrated the ongoing festival. Recognition of such a conjunction would suggest some sort of intentional, culturally charged, overlap and hence an incorporation of the aqueduct into an event on the ritual calendar. To an extent, this

religious alignment may be borne out in the heavy criticism from the ancient sources in regards to illegal water tapping. However, by far one of the most intriguing pieces of evidence comes from Cicero's *Pro Caelio*. Famously during this trial, the great orator pretends he is Appius Claudius Caecus in order to admonish his descendant Clodia. In role as the famous builder of the Aqua Appia (Rome's first aqueduct), he accuses Clodia of immoral use of the water he had brought to the city (Bruun, 1997). While there has been much debate over the proper meaning of *aqua inceste uterere*, any immoral use of water surely implies an original purity that is being tainted.

Another important religious aspect of Rome's urban waterscape was the monumental sewer system, and principally the *Cloaca Maxima*. The importance of this sewer to Rome is underlined in the fact that a small part of it is still in use to this day. The vast amount of water that was brought to the city through the aqueducts was eventually channelled into the Tiber through the *Cloaca Maxima*. It was, therefore, a structure that unified these disparate waters of Rome and merged them with the Tiber. Moreover, the entanglement of 'man-made' and 'natural' water is acutely expressed in the development of the great sewer. Originally, it appears likely that the drain followed the course of a small stream running through, what would later become, the *forum* (Hopkins, 2007, p. 2). As time moved on, this feature was given a structural framework to help drain the flood-prone areas close to the Tiber. Pliny (*HN*. 36.105) notes how the early *Cloaca Maxima* would have collected water from seven tributaries. This origin as a stream is also reflected in the winding course of the feature, which remained unaltered despite later renovation in the Republican and Imperial periods; the total length of the sewer was 1600 metres, but the actual distance covered was closer to 900 metres (Aldrete, 2006, p. 171).

Given these attributes, it should not be surprising that the sewer was incorporated in the religious and mythic landscape of the city. In the *Forum Romanum*, for instance, there was a shrine to Venus Cloacina, a deity whose name is an unmistakable link to the sewer system (Malacrino, 2010, p. 174). There is also the vivid example of the *Bocca della Verità* which, despite its modern associations, was once a monumental sewer cover depicting Oceanus (Hopkins, 2012, p. 98). In addition, there have been a number of links made between the course of the *Cloaca Maxima* and other visible religious structures; Holland (1961) and Coarelli (1983) are most prominent, suggesting a distinct link between the sewer and veneration of Janus. The Imperial era adjustments to the sewer may have

also been consciously applied to directly relate the feature to important structures above ground. A detour close to the Temple of Minerva, for example, was apparently constructed in *lapis Albanus* of similar dimensions to that found in the temple itself (Hopkins, 2012, p. 190). The rarity of such adjustments to the course of the *Cloaca* makes this selection of material conspicuous. These observations clearly reinforce the view of the urban waterscape as something rich with religious and symbolic meaning. Furthermore, they begin to break down the assumption that such water is distinct from sacrosanct 'natural' water.

4.5 Aqueducts and the Law

Some general observations as to the legal perception of 'man-made' and 'natural' watercourses can help us discern a degree of entanglement between the two. The water of aqueducts was legally conceived as either public or private, in the same fashion as rivers. Some may say that the water of aqueducts was not as public as that of an equivalent river; Bruun (2012, p. 23), for instance, notes that anyone, within reason, could use the water of a public river. Obviously, as the above comments by Cicero reflect, the issue of illegal tapping of aqueduct water shows that such interaction was not acceptable. However, it would seem likely that such a situation came to fruition in order to protect the strength of flow and structural integrity of aqueducts. That being said, the same concern for flow is exhibited continually in legal cases involving rivers; where owners are found altering the course or introducing bridges that hinder movement down to other properties. Indeed, such activity forms a weighty body of rulings in the *Agrimensorum*.

Furthermore, the recently recovered inscription of the *Lex Rivi Hiberiensis* (Lloris, 2006) tells us of a tributary of the Ebro in Spain which was used as an irrigation channel. In many ways, this example shows how black and white definitions of watercourses are difficult to achieve. The *Riuus Hiberiensis* was constructed by man, but at the same time links to the Ebro like a natural watercourse. Additionally, the law outlines how upkeep of the canal would have required annual cleaning undertaken by the surrounding community. This was part of a series of annual events that paired the local administrative offices with natural cycles.

The purification of the fields took place at the end of May and was possibly the end of term for the local *magistri pagi*. The date set to begin cleaning of the canal was seemingly the 15th of July, coinciding with the Ebro's low-water period, which today separates the irrigation period for cereals and that for olives, vines and vegetable crops (Lloris, 2006). This would then become the start of a new term of local *pagi*. Consequently, it appears viable to postulate that such events may have played a role in a wider agricultural celebration; maybe this was part of an annual calendar of renewal for the community. We know that such cleansing was also required for aqueducts[50] and therefore their upkeep could have involved the community in a similar way (Bruun, 2012). Indeed, the social dimensions involved in the cleaning of such watercourses could have been understated by archaeologists. It is feasible to see such activity moulding group identities along the course of an aqueduct or canal, as people were united by the prime directive of maintaining the structure. This could have heightened the meaning for an aqueduct as it terminated in a town; not only does it have the original meaning of its source, but it also symbolises the collective endeavour of the surrounding territory.

4.6 Aqueducts and Urban Waterscapes

The main thrust of ideological arguments involving such conduits have been derived from an idea of conspicuous consumption. Yet, by acknowledging this water as a meaning-laden flow (similar to aforementioned rivers or spring lines) we have to adjust our comprehension of excess. This is particularly relevant when we consider the backlog of tradition involving water in temperate Europe. It has already been shown how many Roman towns seem to have been constructed at points of confluence and dynamism within a local waterscape. As has been mentioned, this could present challenging conditions for building and occupation. However, due to the meaning inherent within water, such places would have been hugely ideologically productive; holding significance in both Mediterranean and temperature European traditions. By conceiving the aqueduct as a similar force, it can add to this complex web of significance.

Some of the most impressive Roman aqueducts were led to towns already possessing an (often violent) excess of water. A good example is the city of Cologne (*Colonia Claudia*

[50] It is worth noting that many of the British aqueduct examples were leat style structures that perhaps bore a greater resemblance to *Riuus Hibernensis* than some of the famous aqueducts of the continent.

Ara Agrippinensium), still an important site to this day. It was built on the banks of the powerful river Rhine and, as a result of this, is always at a high risk of significant flooding scenarios (Grunthal, et al., 2006). Even with modern prediction and control methods, in 1983, 1993 and 1995 the Rhine broke its banks to wreak havoc upon the city (Disse & Engel, 2001). These are just three years in a continuous history of such events that characterise the geographical location back into prehistory (Herget & Meurs, 2010). The Eifel Aqueduct, that supplied the Roman town, is known as one of the longest conduits to have been built in antiquity and stretches from the distant mountain range of the same name, some 95 kilometres away. This huge endeavour is remarkable enough alone, but it was actually subsidising an already impressive network of local spring sources that had been tapped to supply the city with water.

Another, perhaps more important example, is the city of Lyon (Lugdunum). It was seen as the capital of the three Gauls, as well as being closely tied to Augustus and the Imperial Cult. Therefore, it was a central location of administration and religion, complete with a dedicated sanctuary to the Three Gaulish provinces (Goodman, 2007, p. 81). The four aqueducts that supplied the city have therefore been attributed primarily to the wealth of the settlement. Nevertheless, Lugdunum was also constructed on an important confluence between the Rhone and Saône rivers, both of which are known for high floods; making the town something of a central point in the waterscape. Certainly the numerous aqueducts seem to add to this feeling of centrality, fanning out in all different directions, bringing the waters of the surrounding area to a fusion point. This is also mirrored in the prominent Roman towns at Arles and Vienne. The former was characterised by its proximity to a powerful river and consequently beset by frequent violent floods (Bruneton, et al., 2001); there is even a suggestion that Roman building around the river made these conditions worse (Allinne, 2007). The latter was located close to a bend in the Rhone, at a large confluence of many rivers. Both were given a significant water supply; in the case of Vienne this has been estimated at potentially eleven aqueducts (Taylor, 2000, p. 42).

The architectural scale of these endeavours has often been commented on. Whilst this aspect of the subject cannot be dismissed, giving prominence to the water opens up a whole new area of meaning. As new elements in a wider waterscape, aqueducts could be seen as creating new confluences in the landscape; this would further entwine a settlement into its significant surrounding territory. Furthermore, by dispersing the water around a

town one could disseminate its meaning into any structure. Thus the audible meaning of water flow may have underpinned one's experience of these typically 'Roman' building forms. The other key consideration to take into account is that by moving emphasis away from the scale of the aqueduct conduits, to the water they held, one can start to appreciate the value of less impressive structural remains in Britain.

4.7 Manipulation of Water in pre-Roman Britain

By and large, the Roman aqueducts of Britain have been ignored in most studies. This is almost completely down to the fact that they were far more 'primitive' in construction to their continental cousins. Most examples seemed to have taken the form of leats (often from river sources), without the ornate arches and bridges that we see comparatively often in France. Two primary reasons have been offered to account for this discrepancy. The first is a disparity in the amount of money available to construct large works (Stephens, 1985a, p. 204). Secondly, the landscape of Britain would have been a vastly different prospect for Roman builders than that of Gaul. Logically, the dramatic landscapes that characterise many regions of France would have demanded dramatic solutions in terms of aqueduct building; the more sedate rolling countryside of Britain would have required less sophisticated techniques. Both of these points are generally true, but once again the assessment of the quality of an aqueduct is being based on the built structure, rather than the water which it bore.

Setting this aside, it is worth noting that this paucity of evidence illustrates a tension within the traditional conceptions of aqueducts; Roman Britain serves as a laughable denial of the idea that water was supplied solely for practical consumption. The climate of Britain is hardly one which engenders a lack of water; it is found in ample supply falling from the sky and beneath the ground. In fact, if we are thinking practically, the real surprise is that there were any aqueducts built in Britain at all. By the same token, ideas of luxury and largess seem to be at odds with the reality of the archaeological evidence. Consideration of these factors presents us with a conundrum; there is evidence that most of the major towns possessed some sort of aqueduct supply (Wacher, 1974), but there is no acceptable reason for their creation. Wacher has been influential in propagating this accepted line, essentially portraying them as homage to Romanisation for the less fortunate. This is predicated on the fact that most of these water conduits supplied the Roman baths and thus, to his mind, were

merely a lifestyle choice on behalf of the elite. This seems an unsatisfactory assessment when we take into account the enduring cultural associations with water that have been outlined throughout this thesis.

The acknowledgement of this cultural importance can aid us in conceiving aqueducts as an integrated part of a waterscape that held immense significance for people in the past. Edgeworth (2011) makes the assertion that rivers can often become hybrid features, mixing 'man-made' and 'natural' elements. It is feasible to view aqueducts in a similar way, interactions with water that lacked a clear definition as either 'natural' or 'man-made'. These types of interventions were already happening in the Late Iron Age. Monumental causeway structures, mentioned in previous chapters, would have undoubtedly altered the flow and the perception of a river. Even a class of monument such as the pit alignment could have had a physical and conceptual effect on the flow of water; there might even be a case for arguing that pit alignments 'encased' parts of rivers, albeit in a less physical way to an aqueduct. It has been proposed that some of these pit sequences represent cumulative layers, or additions, around a river (Pollard, 1996). Moreover, they are a relatively widespread feature of the Iron Age that coincided with areas that later became locations for aqueducts, such as Lincoln (Boutwood, 1998; Willis, 2006). The demarcation of rivers through pit alignments actually echoes the 'protective' strip of land either side of an aqueduct. Frontinus (*Aq*. 1. 127) refers to this liminal area around conduits in the countryside as a measure to protect their structural integrity and enable access. The reason Frontinus gives for this legal action is an accumulation of tombs and edifices around the aqueducts leading into Rome. So there is a sense that such incoming traditions, associated with aqueducts in the Mediterranean, would not necessarily have been viewed as completely alien to the inhabitants of Britain. Therefore the introduction of these structures is not taking place in a cultural vacuum.

Settlements of the late Iron Age are also known for monumental dyke systems, the functions of which remain unclear. The traditional consensus has been that they represented defensive works. Yet, for the most part, these features did not completely encircle nearby settlements and therefore are of debatable value in a defensive capacity. Rogers (2008, p. 80) mentions that some of them could have been used to direct and channel livestock; the importance of cattle as symbols of power and status could have been a reason for such a monumental undertaking. This raises some important questions about

how people of the Iron Age conceived the connectivity of places within the landscape. Part of the interpretation of dyke systems as outlets for moving cattle is based on the linkage these structures provided between wetland areas. The movement of animals to and from different watering holes would have been a practical necessity in a more fluid agricultural setting, where land holding will doubtless have been a sensitive and well managed matter. Indeed, writers have utilised the term 'Hydraulic communities' to describe the pattern of activities in such landscapes (Evans, 1997; Chadwick, 2007). The possibility that such actions were ritualised and monumentalised constitutes a key development in this area. It underpins the aforementioned logic of meaning-laden aqueducts in the Roman world. In a similar way, we have built structures that physically link places in the landscape. More than this, they become hybridised features that actually heighten the flow of things between places; in this case, we have animals. Willis (1999) has noted how some Iron Age enclosure systems in the North-East of England seem to have been constructed in direct relation to the surrounding environment. At times of wood surplus these large features were constructed as palisades using this material; but when it became scarce in the landscape, ditches and banks became more predominant, replacing palisades, and echoing a 'cleared' landscape of fields. The result is a man-made feature in harmony with its natural surroundings. The development was not a radical new statement, but a change that better expressed contemporary associations with the immediate landscape.

More generally, there is a consensus that people in the Iron Age were expressing symbolic boundaries that were crucial to the conception and navigation of the landscape (as with their forebears, though by contrasting means). What appears to have been underplayed is the capacity of these ditches for catching and channelling water. In the area of St Albans, the White Dyke was 23 metres wide across bank and ditch, with evidence of molluscs suggesting it was once water filled (Thompson, 2005, p. 31). Other similar features such as the Devils ditch, New Dyke, and Beach Bottom Dyke, were all within the same area, relatively close to the River Ver (fig. 16). The latter of these was a massive construction of indeterminate purpose. Bryant (2007, p. 72) has proposed that, rather than simply a boundary, it could in fact have been a processional pathway that created a forced perspective on approach to St. Michael's enclosure at Verlamion. The Ver valley would have provided a natural continuation of the Dyke and pointed straight towards the Iron Age enclosure. In addition to this, the similar Devil's Dyke could have been a link between the

rivers Ver and Lea. Finally, even if they have not presented the same sort of conclusive evidence as the White Dyke, the remains extant today provide vivid proof that, at the very least, they may have channelled surface water.

In the same vein, outside of Chichester, there are a series of earthworks that are generally called the 'Chichester Entrenchments' (fig. 44). These features have been traditionally conceived as structures relating to the defence of either a local *oppida* of the Late Iron Age or possibly the important 'palace' at Fishbourne (Cunliffe, 1971, p. 15; Bedwin & Orton, 1984). This is, in part, due to their rectangular arrangement that would seem to describe a type of shield around the area of Chichester. This is somewhat unusual because such features do not often present as a comfortable defensive enclosure area (Rogers, 2008, p. 70). Nonetheless, the work of Bradley (1971) confirmed that it was somewhat unrealistic to view the earthworks as a unified whole; rather, there were a number of stages that built up to this convenient arrangement. Despite this, he (Bradley, 1971, p. 34) still conformed to the general ideas of Frere (1967, p. 46) that the purpose of the Chichester Entrenchments was likely to have been defensive, but also to delineate large tracts of settled land. This idea of dyke systems creating a sense of ownership, or dictating power relationships through movement, has been explored by Witcher (1998) from a phenomenological perspective. Yet, one of the most interesting elements of Bradley's survey was the fact that it highlighted a deep relationship between the entrenchments and surrounding waterscape. In fact, each of the phases of development that are outlined is closely related to the pattern of rivers and to surface geology (Bradley, 1971, p. 30).

The earth work labelled EWA (ii) is the clearest example of such a relationship, running between the Lavant and Bosham watercourse. Likewise, EWC ran between the River Lavant and a watercourse that discharged into Fishbourne Harbour (Bradley, 1971, p. 24); EWA (i) seems to respect the line of a major watercourse, while also running through a wet floodplain area (Bradley, 1971, p. 20); EWD runs east from a stream that discharges at Bosham (Bradley, 1971, p. 23); NSI starts close to the Lavant before heading south towards the later town; there is even the possibility of EWI representing a small dyke running from a watercourse south of Chichester (Curwen, 1954). In addition, the dyke systems highlight at least two springs in the surroundings of Chichester. The course of EWA (ii) leaves its alignment at one point, forming a rough trapezium shape; there is evidence to suggest that a spring was located within this 'salient' (Bradley, 1971, p. 21).

Furthermore, NS5 could have linked the two long north-south dykes at, what was described in antiquarian reports as, "The Watery Line", where a spring was located (Bradley, 1971, p. 24). Both examples show significant points of deviation for the entrenchments and thus should perhaps be seen as of equal importance to the termination points at rivers. There is also a possibility that the area could have had many similar points, considering the amount of smaller streams that surround Chichester.

The link between water and the entrenchments has only really been postulated in terms of beneficial ways to limit movement or mark out space in the landscape. However, as with the examples at St. Albans, there is a possibility that we should be analysing these dykes as a conscious effort to manipulate or highlight the local waterscape. As with the features at St. Albans, periodic standing water (from rainfall) is very possible and this could probably even be observed in places today. The proximity of springs may also have created the possibility of consistent direct water drainage into the entrenchments. The two spring sites highlighted above may well have also had 'entrance' points to the earthworks (Bradley, 1971, p. 33). In this regard, the north-south entrenchments are of particular interest because they run from high to low ground; from the direction of the Downs to Chichester. It is debatable whether this could have created any consistent flow of water, but the dykes do follow a similar path to that of the Lavant. The relationship between the lowland coastal location of Chichester/Fishbourne and the South Downs to the north could have been particularly important. The Lavant, for instance, is a product of the chalk composition of the higher ground; it is known as a winterbourne river that only flows at full strength when the rainfall on the Downs has saturated the chalk water table. Consequently, the high ground was always linked to settlement in the Chichester area. Such circumstances are easily woven into local folklore and become key components in the presentation of power in the landscape. The characteristics of chalk rivers, like the Lavant, also lend themselves to such beliefs; the water is stored within the chalk, therefore retaining a consistent temperature and a clear quality not always apparent in other watercourses. The relatively high temperature can also mean on cold winter days these watercourses look to have steam rising from them.

These attributes could certainly have formed the basis of a link between the Chichester area and the South Downs based on water. That notwithstanding, there is also the fact that the Downs are well known for their dry valleys or 'coombes'. These dramatic landscape

features such as the Devils Dyke, north of Brighton (where a hillfort overlooks and is half enclosed by this landform), may be dry now but their explanation must always come back to the presence of water. It is probable that they would have been conceived as remnants of powerful rivers that once flowed through the landscape (Tilley, 2010, p. 71). The question of where this water went would surely have been a part of local legend, and might involve an acknowledgment of its presence buried within the land of the Downs. Additionally, these dry valleys are like colossal versions of the Entrenchment system. As a result, the 'man made' dykes around Chichester could be partly referencing the water associations of the higher ground. The fact that the EWA (i) entrenchment closely follows the edge of the Downland chalk (Bradley, 1971, p. 21) could be further evidence to illustrate this link.

Another well-known system of Iron Age dykes is found in the area surrounding Colchester (fig. 15). While they are not as vividly associated with water as the examples at Chichester, many of them still start or finish at either the Colne or Roman River. One pronounced pattern in the dykes around Gosbecks is the clear gap given, by all the associated earthworks, to the stream that ran into the settlement. This seems to monumentalise the flow of water within the immediate landscape. The effect of the dykes could also have been to direct more surface water down the valley into this watercourse; thus, again, creating a confluence effect. Certainly, this would have been the case for the earthworks running down towards the Roman River, such as Oliver's Dyke.

Furthermore, we know that these large ditches were also cleaned out on a fairly regular basis (Thompson, 2005, p. 32). This suggests a degree of upkeep and organisation that parallels some of the examples of rural aqueducts and canals in Italy. There is also a suggestion that some of these structures would have been locations for rituals, perhaps in the deepest parts of the Dykes (Bryant, 2007, p. 73). Moreover, some of the elaborate dyke features have been seen as part of monumental entrances to settlements or, sometimes, playing a role in linking two important places together. As we will see below, many of the British aqueducts/conduits seem to be linked to significant places in the hinterland of towns and many terminate by entrance ways. The latter could simply be dismissed as pragmatism, but the tradition of these prehistoric features suggests the positioning of aqueducts may involve a more considered referencing of past activity.

These connecting principles are worth acknowledging because they highlight a system of relation and association with which individuals in Britain could translate incoming

Roman urban features. While the aqueducts were obviously different, they may not have been something completely alien to those people who had been living in the vicinity of Camulodunum and Verulamium. On a wider scale, this acknowledgement of earthworks contributing to a waterscape, for instance, shows that we may already be seeing a distinct blurring in the conception of water (and the effect human interaction has upon it) in the Iron Age. Subsequently, we cannot start over-rationalising the construction of aqueducts in Roman Britain because they are part of a tradition in the landscape; a tradition that we have accepted as being primarily ideological and symbolic.

4.8 Evidence from towns in Roman Britain: Case Studies

Given the considerations raised above, it is possible to appreciate the aqueducts of Britain from a more informed perspective. Instead of dwelling on the technical elements of these conduits, although some explanation is obviously necessary, an effort will be made to take a more phenomenological approach to their construction. This is important because it can help us overcome the deficiencies of evidence that are manifest in Britain. By placing the emphasis on the flow of water, we move beyond evaluating these structures purely on their survival quality in the archaeological record. Issues relating to the climate and availability of suitable raw building materials may have played a prominent role in the poor survival of British aqueducts. The traditional approach would see this as an index of the relative importance these structures held for people in the past; if communities were willing to disassemble their water supply they did not perceive it to be valuable. In contrast, if our focus remains on the water, these developments may just be part of wider changes in the relationship to a particular source, something that has been emphasised throughout this thesis. Just as the way people interacted with water changed during prehistory, the Roman period and beyond would have been characterised by changing cultural associations. These factors may have adversely affected the type of archaeological evidence we possess, but the importance of water could have endured unscathed. With this in mind, the aqueducts will be analysed as part of greater local waterscapes, with their passage through the landscape and distribution within towns, providing evidence for their meaning-laden nature.

4.8.1 Lincoln (*Lindum Colonia*)

The aqueduct of Roman Lincoln has been a focus for many archaeologists investigating the town's development (Thompson, 1954; Lewis, 1984; Wacher, 1975; Hodge, 1992). Accounts have invariably concentrated on the potential source of the aqueduct and the technicalities of engineering involved in supplying the Upper city of Lincoln (fig. 45). Interestingly, nearly all these writers have discussed the possibility that the aqueduct actually did not function; recent archaeological work, however, has meant this is no longer an issue (Williams, 2006). Underlying all this is the assumption that Lincoln was a very *Roman* town, and that this was the principle reason for it possessing the best water supply known in Britain. Only recently have archaeologists begun to question whether assessing this structure in practical terms is truly the most effective route to understanding. Indeed, Jones (2003b) has highlighted how functionalist research into the purpose of the aqueduct has almost reached its practical end. Furthermore, as highlighted above, the Lincoln area was never really in need of extra water for consumption, its wells and numerous springs would surely have sufficed for this purpose.

Support for a ritual reason behind Lincoln's aqueduct is also found in the potential *Nemeton* (sacred grove) at the Roaring Meg spring. The known trajectory of the aqueduct leads in this direction. Furthermore, an inscription found in nearby Nettleham, north-east of the city, mentions the native god Mars Rigonemetos. This was part of a dedication on an arch at the entrance of a temple enclosure (Petch, 1962). The inscription was found in a secondary location but has been interpreted as relating to activity at the spring site (Stocker, et al., 2003). That being said, it is by no means certain that the Roaring Meg spring was the source of the aqueduct; others have postulated sites as distant as Otby Top (Burgers, 2001, p. 38), an important source of water in the second half of the twentieth century, north-east of Market Rasen.

An aqueduct source at Otby Top would link the town to the dramatic natural potential of the Lincolnshire Wolds, which would certainly have had their own special resonance in the local community. In particular, it is worth noting how areas such as the Bain valley are known to be 'storm traps'. A 'cloudburst' recorded on 29th of May 1920 famously deposited some twelve million tons of water in less than three hours, claiming twenty-three lives in Louth alone (Robinson, 2009, p. 75). Another dramatic account was recorded on 7th October 1960 when, a cumulonimbus cloud towering to 12,000 metres lodged against

the south-west edge of the Wolds near Horncastle. During the resulting storm 18 centimetres of rain fell within six hours (Robinson, 2009, p. 76). Such events have the power to reshape a landscape and would surely have been explained within a local set of water beliefs. Yet, the drainage of these dramatic weather events would have been focused mostly towards the west (Smith, 2009, p. 109) . As such, the creation of an aqueduct would have been the only watercourse leading out of the Wolds towards the east and the settlement at Lincoln. Therefore if the aqueduct was sourced from this locale, its flow could have reinforced a link to dramatic weather systems on the Wolds.

A third viable option for the aqueduct source, hitherto not suggested in the literature, is the next valley south of Otby Top. This is the head valley of the River Rase and it certainly has an appropriate elevation. Moreover, there is a Roman site here above a known spring source at Churn Water Heads (pers. comm. Steve Willis). The other notable aspect of this site is the fact that the springs are associated with tufa; therefore they may have been identified as being particularly important in the Roman period (as explored in section 4.4.2).

However, any of these sources would seemingly fit into the overall schema of Lincoln proposed in this thesis. By tracing the aqueduct from one of the venerated sites in the surrounding landscape to the Upper city, one again reinforces possible mental/visual links between places of watery meaning and the central places of the Roman town. It has been shown how both the bridging of the Brayford Pool and the continued prominence of the *forum* well could have been reinforcing local associations pertaining to the immediate and wider landscape. This idea of Lincoln being perceived as a nodal point, within a highly significant prehistoric waterscape, is pivotal when evaluating the aqueduct. It potentially brought new waters directly into to the Upper City and would have created a deeper physical link with the regional waterscape.

Lincoln is also said to have possessed one of the best developed sewer systems in Britain (Wacher, 1995, p. 138). Part of this system was uncovered in the nineteenth century, primarily beneath the main north-south street of the Upper city (Jones, 2003a, p. 61). In this area the main conduit was presumably large enough to be cleaned internally and was probably joined by numerous other drains from the east and west (Jones, 2003b, p. 117). Unfortunately, there is unlikely to be modern excavation of these features, as many listed buildings are found in the area. Despite this, there have been traces of the system

located close to Steep Hill, meaning it likely ran down to the Lower city and the Witham (Jones, 2003a, p. 61). This would appear to reinforce the postulated water-based links between the Upper and Lower city. Furthermore, it means that the aqueduct water, probably derived from sacred sources in the urban periphery, would have ultimately joined the Brayford Pool. In essence, this external water could have been seen as creating a new confluence with the Witham.

There have been recent discussions about the potential of the aqueduct actually feeding water away from the town, perhaps to the sanctuary at Roaring Meg (Stocker, et al., 2003; Jones, 2003b). It has been suggested that this could have been a move by the Roman authorities to physically appropriate a native sanctuary by feeding waters from the *forum* area to this site. In fact, in many ways, this would appear to be an action rather at odds with the more traditional discourses around colonisation. Again, it seems to be an idea based upon the waters from the Upper city having meaning imposed upon them by new structures of Imperial authority. Of course, if in fact the water was the defining influence, this makes the imposition of a 'Roman' identity on the external site at Roaring Meg rather dubious. That notwithstanding, with this interpretation it also becomes difficult to justify the size of the aforementioned sewer system and the various water features of the town.

4.8.2 Dorchester (*Durnovaria*)

Dorchester is a town intimately associated with its nearby river, the Frome. The Roman aqueduct (fig. 46) was a rather modest leat that tapped waters from the nearby dam at Littlewood Farm (Burgers, 2001). Stephens (1985a, p. 203) labelled this "the least satisfactory sort of aqueduct tapping the least satisfactory of sources". This comment is typical of the treatment of British aqueducts, concentrating on a narrow definition of function and ignoring local beliefs. Accordingly, despite extensive work on discovering the course of the aqueduct, archaeologists have largely ignored the potential that it could be actively engaging with important locales in the urban periphery.

Perhaps this is understandable as, for the most part, the aqueduct appears to have followed a route of least resistance. However, from the perspective of this thesis, the way that the aqueduct interacts with the Poundbury Hillfort is most interesting. Indeed, the old Bronze Age central place was situated overlooking the Frome, which would surely have

been a focal point in the wider mythic landscape of the Dorchester settlement. As mentioned in previous chapters, the Iron Age tribe of the area were known as the Durotriges, which has sometimes been interpreted as 'water dwellers' (Strang, 2004). Such an association could well have been formed further back in prehistory, when the Poundbury settlement was first occupied. Certainly people living on the high ground would have made regular trips down to the Frome, meaning the area of the later aqueduct could have had layers of meaning for local people by the Roman period. Interestingly, the conduit actually mirrors the earthworks associated with the hillfort, albeit utilising the new techniques associated with the Roman period. Such alignment cannot be dismissed because these features of the landscape (and the history they were associated with) would have been the key to how the people of Dorchester conceived their world. It is worth noting that a second phase of construction (perhaps never truly completed) expanded the conduit to twice its size in the area of the hillfort (Putnam, 1997); the practical benefits of such a development would certainly have been very limited. Internally, excavations at Wadham House and Collition Park have uncovered another contemporary conduit heading towards the Frome. This feature has been interpreted as a spillway, perhaps associated with a regulatory reservoir for water that could have been situated near the West Gate. It was a massive construction – by British standards – probably originally lined with masonry for a full depth of 4 metres (Draper & Chaplin, 1982, p. 25)**.**

As an overt display of Roman culture and sophistication, the Dorchester aqueduct is not particularly impressive. However, as a more inclusive construction, woven into the meaning of the landscape from the pre-Roman period, it is particularly potent. Durnovaria does not appear to overlay a pronounced prehistoric settlement, as is the case with some other notable Roman towns. Yet, the path of the aqueduct may have linked a number of smaller concentrations of population (including the nearby hillfort) with the newly established town. The association of these places would have been borne by the water itself, which was then filtered through the fabric of the settlement. After use in many buildings and for different activities, it was then directed back towards the Frome in monumental fashion. This symbolic water cycle could have been profoundly powerful. However, it does not follow that we have to conceive of such activity as exclusively 'Roman'. The truth is that the aqueduct could have had many different meanings and these could have all played a part in its 'function'.

4.8.3 Winchester (*Venta Belgarum*)

Similarly, a less well known leat was also built to supply Winchester during the Roman period. Once again, this is a town which is intentionally associated with a watery setting; it was partially built within the large floodplain of the Itchen. The aqueduct is thought to have started at Itchen Stoke Springs before following the course of the nearby river towards Winchester (fig. 47). It is a proposed course that appears fairly un-remarkable, but actually is associated with numerous places of prehistoric significance. Along the course, for example, Itchen Stoke, Itchen Abbas and Kings Worthy all have some evidence of settlement before the Roman period (Hampshire County Council: 'Hampshire Treasures' Database). In addition, the apparent departure from the river course around Woodham's Farm and King's Worthy is notable for its banjo Enclosure (Perry, 1966). Furthermore, the area near Headbourne Worthy (where the aqueduct veered towards its westerly extreme) is also the site of Flowerdown Barrow cemetery. The conduit would seemingly have entered the town around the North Gate area, and therefore would have had the requisite height to distribute waters to all parts of the town (Burgers, 2001, p. 43). Qualmann (1991, p. 11) suggested that deep deposits of silty clay found outside the North Gate may have marked the location of a cistern or reservoir.

Recent work located just south of this presumed gateway seems to confirm the potential of this interpretation (fig. 22). Excavations at the Discovery Centre site unearthed a channel 35 metres in length associated with a major Roman street. This consisted of a steep cut of 2.5 metres in width; the sides of which were faced with three courses of roughly-worked flint nodules bonded by a hard buff lime mortar (Biddulph, 2011a, p. 54). Measurements along the base of the channel suggest a gentle fall in height coming from the north. The general direction of this feature is from the north east to the south west, which it follows for around 10 metres before abruptly crossing the aforementioned street. This change in direction has cast some doubt on the interpretation of the feature as part of an aqueduct. Part of the problem is that dating evidence is rather sparse; the general alignment with the nearby road, and a coin from the base of the channel, seems to imply a first or second century date (Biddulph, 2011a, p. 55). If the feature was contemporary with the road then it must have possessed some sort of covering, maybe in the form of a culvert. Without strong evidence for such attributes, some have seen this channel as potentially just a roadside drain.

However, besides the suitable location, there is still reason to believe that this is the primary aqueduct of the town. The profile of the conduit seems to match up with the aforementioned discoveries outside the town, implying a continuity of scale that perhaps would not be befitting of a simple drain. Moreover, the flint-mortar construction would have been an efficient material for water retention and distribution. Also, a street side timber lined channel from The Brooks area of modern Winchester was of similar dimensions. According to Zant (1993, p. 52), this functioned as part of the large scale reclamation of the flood plain of the Itchen. The positioning of the newly discovered feature on the high ground, close to the gate, means it was probably not involved in similar activity. Therefore the large volume is conspicuous and likely confirms the interpretation as a primary water supply.

The final feature that is worth noting, relates to the nature of the road to which the conduit was aligned. The North Gate of the Roman town is generally agreed to have overlaid the north east entrance to the Iron Age fortified settlement of Oram's Arbour. The street in question has been interpreted as the main Roman road leading from this particular entrance point. As a consequence, it is no surprise that evidence has been found showing that it was preceded by an Iron Age holloway (Biddulph, 2011b, p. 179), which would have been a primary route in the landscape before the Roman settlement. The presence of the aqueduct along this route conforms to the idea, raised above, that such conduits could be used to highlight points of significance within the local mythic landscape. As a holloway in the higher ground, it is possible that the route also had some sort of resonance with water before the creation of an aqueduct; a high volume of rainfall could have occasionally transformed the sunken feature.

Taking all this into consideration, it is rather limiting to just conceive this aqueduct in terms of its structural grandeur. Stephens (1985a, p. 203) notes the "enormous disparity" in both capacity and cost between this aqueduct and its larger contemporary supplying Paris (Lutetia). Yet, the impact of this conduit from a more phenomenological perspective is surely just as marked as any comparable structure. Interestingly, there has been evidence of water distribution further towards the centre of Roman Winchester. The remnants of wooden pipes were found in Lower Brook Street running north-east to south-west. Added to this, a conduit with lead lining and an *opus signinum* covering was recovered south of Durngate (Gunner, 1849). This is close to a temple and thus the water could have been

incorporated into religious practices. So, potentially, the water of the aqueduct was spread quite thoroughly throughout the town; the pipes of Lower Brook Street indicate provision into the eastern reaches of the settlement, close to the river. If we conceive of the water taking on the meaning of the important prehistoric landscape it travelled through, then this distribution is important symbolically. It has to be questioned whether an individual in the past would have viewed the structure as something different—or 'Roman'—considering its path of prehistoric importance. Such considerations are only amplified by the fact that Winchester was already precariously positioned within the flood plain of the Itchen; therefore the addition of new water would not necessarily have been practically sound.

4.8.4 Wroxeter (*Viroconium*)

The aqueduct at Wroxeter is of a similar ilk to the above examples. It is known to have been a leat that was sourced from the damming of the nearby Bell Brook— at a point one mile north-east of the town (White & Barker, 1998, p. 99). From this point, the conduit appears to have followed the course of the Bell Brook Valley and entered the town close to the East Gate (fig. 24). The date of the aqueduct is unclear; certainly evidence of the legionary phase at Wroxeter suggests a requirement for water (baths and a possible fountain), meaning it could date from the first century A.D. However, what seems certain is that the water supply would have been at its peak during the second century building phase of the site. Wacher (1975, p. 442) has made the assertion that the conduit could have terminated at the site of an assumed Romano-Celtic temple, just north of the baths. He alludes to aerial photographs of the site which show a faint outline (possibly a water pipe) entering the area that he tentatively identifies as a sacred enclosure. There have been numerous finds of anatomical *ex votos* in the form of eyes made of gold, copper alloy and plaster. These were mostly found re-deposited in rubble on the baths *basilica* site, which possibly attests to a temple in the city specialising in the healing of eye complaints (Ferris, 2002, p. 1). Such activity is often linked to water, in various different periods, and thus the association with the aqueduct is fitting. Of course, the effect of this is to give the water of this locality a meaning outside the Roman context. Despite Wroxeter not presenting much in the way of Iron Age evidence, the water of its locality could still have been sought out for healing properties regardless of whether a definitive settlement had been established.

The majority of water supplied to Wroxeter would have been guided towards the second century bath structure. Indeed, much of the internal piping that has been found during excavation has related to the bathhouse and its various phases. Bushe-Fox (1916, p. 13) did find one conduit that ran along one of the main streets with sluice gates providing water for private residences. There is also evidence for a street fountain, which may have taken a similar form to the numerous examples found in Pompeii. The general perception of the water, within its various different states of presentation around the town, would surely have been linked to its seemingly ritualised termination point. Concordantly, perhaps this fountain also had a special resonance for people within Wroxeter.

With this in mind, one of the more intriguing areas of the town is the location of the *macellum*. Discovered within Hadrianic build up of material in the area was a fine-grained sandstone sculpture of Venus (or perhaps of a water nymph). This figure has been regularly mentioned in publication (Frere, 1984; Webster, 1988a; Henig, 1995; Henig & Webster, 2002) and is believed to be a decorative outlet for a fountain. It has been suggested that the quality of the sculpture could mean it was a central feature in the garden of the *praetorium* during the legionary phase of the town. Bearing in mind what has been said throughout this chapter, and indeed about the water of Wroxeter above, this is obviously an interesting central feature for a fortress headquarters. Yet, the later history of the area as a *macellum* makes the figure even more intriguing.

There are not many definite examples of *macella* found Britain (Rogers, 2008, p. 155). Closer to the heart of the Empire they were a staple form of building that is represented on many different sites; they are usually defined by a pattern of small rooms bordering a large open space (de Ruyt, 1983). Yet, with the British examples that have been identified there is not necessarily a uniform design. Regardless of this, there is a sweeping popular conception of them being simply markets. Undoubtedly goods seem to have been bought and sold in these areas, and thus part of their role would have been similar to the market of today. However, as has been mentioned before in this thesis, elements of blessings and rituals involving the sale of food were common place in the Mediterranean. Combine this with its communal nature, which inevitably brought together a diverse swathe of the population, and one is presented with a dynamic space that could have been conceived in various different ways. It has been noted that applying our knowledge of Mediterranean *macella* to the periphery of the Empire can be somewhat troubling (Ellis, 2000, p. 342). To

this end, the common feature of rather elaborate water supply and drainage in these buildings is of some interest.

At Wroxeter, the *macellum* had a drain and very solid foundations suggesting that a fountain was placed in the central court (Ellis, 2000, p. 342). Furthermore, as mentioned above, the Venus sculpture was found in this area and potentially indicates the presence of a legionary era fountain in close proximity. The sculpture itself had signs of wear that indicate that it was possibly re-used in the *macellum*, debatably as a primary feature at an entrance. If the water of the aqueduct was already associated with special meaning, its focus within the *macellum* area might have been indicative of further associations outside the accepted 'Roman' tradition. Certainly there is much evidence to imply the increasing ritual associations with food during the Late Iron Age (Bradley, 2000, p. 152). The idea of wet valley locations also being key meeting points in prehistory for connectivity and trade is also perhaps important. Indeed, one wonders whether, through the channelling of meaning-laden water, the everyday perception of a *macellum* may be as much about prehistoric traditions as new 'Roman' definitions of space.

4.8.5 Leicester (*Ratae Corieltauvorum*)

For many years, archaeologists have debated whether the Raw Dykes monument (to the south of Leicester) represents the remains of a water supply. Kenyon (1948, p. 41) put forward the idea after finding a few sherds of Roman pottery in association with the feature. This was combined with apparent confirmation from eighteenth century sources that suggested the Raw Dykes had once stretched towards the city (fig. 48). If it was an aqueduct, the only close source would have been the Knighton Brook, even if this is a rather small water course in the modern day (Kenyon, 1948, p. 41). However, Kenyon was writing in the context of trying to find an ample water supply for the impressive Jewry Wall bathhouse. As such, this interpretation of the Raw Dykes was still problematic. She noted how the baths were actually at a higher level to the supposed aqueduct, and thus would have been impossible to supply without a lifting mechanism. As a result, Kenyon envisioned the Raw Dykes as representative of work by an "incompetent provincial engineer" (Kenyon, 1948, p. 41), which never succeeded in bringing water to the town. This explanation is clearly unsatisfactory.

Still, the case of Leicester is so puzzling because of the large drainage features that have been associated with the town bathhouse. Indeed, Wacher (1995, p. 349) notes that major drains ran around at least three sides of the structure, implying plenty of water in the vicinity. Burgers (2001, p. 42) has put forward the idea that water could have been supplied to a central area of the town before being lifted by a tower structure; this has precedent in the Mediterranean. Nevertheless, there is sparse evidence to corroborate the existence of such a structure in Leicester. Wacher (1995, p. 350) mentions the discovery of a small ditch (1.2 metres wide and 1.2 metres deep) running north away from the approximate point where the supposed aqueduct would have entered the town. This ditch could represent the traces of distribution pipes from a terminal point close the South Gate. He also makes mention of a stone basin drinking fountain, found in 1862, on the site of 52 High Cross Street; this would have been on the main north-south street of the town. Certainly this implies the existence of a fairly advanced running water network, but it does not really aid the interpretation of Raw Dykes. Indeed, Burgers (2001, p. 42) stresses how more recent excavations between the town and the monument have not found any trace of its continuation towards the Roman settlement.

The fact remains, if the Raw Dykes was an aqueduct, it was not necessarily a requirement for it to supply the bathhouse. If a conduit reached the gate it could still have had a profound symbolic impact on the entrance to the settlement and may have served the immediate buildings in this area. In line with this, Wacher's presentation of the assumed path of the feature from the Knighton Brook to the town gate raises some interesting questions about its purpose as a landscape feature. As is the case with the above example at Dorchester, this conduit mirrors the nearby river which, in this area, had a tendency to braid. As mentioned in previous chapters, Leicester's Late Iron Age activity seems to centre on the Soar itself, moving away from previous settlements in higher areas (Charles, et al., 2000; Cooper & Buckley, 2003). Some of the first 'Roman' era activity on the site seemed to mark out a gravel area underneath the later *forum*, which could have been the crystallisation of meeting points close to the river during prehistory (Wacher, 1959; Buckley, 2000). Consequently, it makes sense that the river may have represented a key point of movement through the valley from the surrounding territories. Navigating the marginal areas around the Soar could subsequently have constituted a common prelude to meeting in the central areas that later came to form the Roman town.

The importance of marking such areas may have been part of the reason for monumental earthworks in prehistory; the derivation of the name 'Ratae' has been linked to the construction of such earthworks in the area (Rivet & Smith, 1979, p. 443). Indeed, Raw Dykes was formerly seen as a prehistoric construction, serving a similar purpose to dykes outside settlements such as Colchester. However, a Roman period aqueduct does not necessarily have to be divorced from these associations. It may have served to further highlight the central importance of Leicester in the landscape and also to delineate the zone of meaning close to the river. The area between the Soar and 'aqueduct' could well have been bountiful in natural life and rich with meaning. Importantly, the Raw Dykes does not necessarily have to have been an aqueduct that supplied a whole town in an efficient empirical sense. Other sources of water (such as the Soar itself), or an as yet undiscovered conduit, could have supplied the bathhouse and the higher levels of the town.

Likewise, it is entirely possible that such a construction did not have the practical supply of the *civitas* capital as its primary aim. Indeed, it could have been more about defining a sense of place that was clearly forming in the Late Iron Age and early Roman period. The entrance ways in the Iron Age settlements of this region are known to have been special places worthy of respect, with evidence apparent even in the immediate surroundings of Ratae (Cooper, 2006). Therefore, the association of a dyke with an entrance is not something completely out of character within the prehistoric landscape. If future survey and archaeological work cannot prove more decisively the purpose of Raw Dykes, perhaps these phenomenological lines of enquiry represent the best chance of understanding the role of this ambiguous feature in the Roman period.

4.8.6 London (*Londinium*)

The water supply of London has been a source of debate for archaeologists over an extended period. However, in light of the recent discoveries of monumental wells (Blair, 2002), there is increasingly a consensus that the town did not possess a significant aqueduct from an external source (Blair & Hall, 2001; Williams, 2003); although the dense modern occupation of the capital means that it is hard to make firm declarations on such a matter. While there may not be significant evidence for an aqueduct leading directly into the central areas of the town, a leat style conduit has been discovered on the outskirts, in

association with the River Fleet (fig. 49). It siphoned water from further upstream to the, aforementioned (see section: 2.6.1), point of the small eyots at the Fleet crossing (Spain, 2004, pp. 41-42) . This conduit has been viewed as part of an industrial zone; the power of the flow being directed into water mills (Spain, 2004, p. 47). Of course, while this area may have been involved in manufacture it also seems to have had a strong ritual meaning (see section: 2.6.1), similar to the above examples at Winchester and Dorchester which referenced significant points in the landscape.

Furthermore, the issue of water mills is a topic that needs some discussion and clarification. They invariably require the construction of some sort of channel to focus the power of a nearby watercourse. Therefore, they are frequently linked to the creation of aqueducts; the Barbegal mill close to Arles in France is a case in point (Leveau, 1996). The problem is that because mills serve the seemingly clear purpose of production, their presence can often be seen as a force to count against more ritual, or ideological, interpretations. Yet, Purcell (1990) notes how the idea of a 'productive landscape' in Italy often had more to do with symbolic processes of transformation. So, in this way, productive villa landscapes were not always located in places where a maximum agricultural yield could be attained. Sometimes distinctly unhelpful, often waterlogged, locales were selected and then transformed. This would be agricultural production, but set against the odds of an unfavourable setting. Thus the ideological potency of the villa could be greatly enhanced.

Therefore, this leat system, although patently possessing a practical function, could also have had other associations based on the significance of the area and the medium of water. Even on a surface level, one could certainly suggest that this structure may have changed the flow pattern of the Fleet; the potential significance of this kind of change has already been outlined. However, with the two bridge crossings into the town, changing tidal points, islands, and the conduit, we have a location that is defined by watery transformation; the natural elements intertwined with the man-made features, enhancing one another. The islands are a powerful liminal area respected in ritual; they are formed by the dynamic forces of the Fleet in this location; the conduit enhances the power of this flow; the mills utilise this and transform other natural elements; the bridges mirror the liminality of the islands and give an enhanced perspective over the significant water flow; they

subsequently make this transformative experience part of the journey one takes when entering the town.

With this in mind, it is worth considering the Walbrook, with its legacy of prehistoric meaning. The extent to which it actually became something resembling a leat in the Roman period is particularly intriguing. Various accounts seem to point towards the middle Walbrook becoming an increasingly canalised and 'man-made' structure. At modern Bucklersbury House, evidence has been found of continual Roman projects to maintain the banks of the middle Walbrook. This consists of large timber revetments constructed towards the end of the first century, as well as the artificial raising of both banks via a coordinated program of clay and gravel dumping. Added to this, rich organic material found on both banks has been interpreted as the upcast from the cleaning of the channel itself. This sort of activity is a small scale example of river hybridisation that Edgeworth has identified in watercourses like the Yellow River in China (Edgeworth, 2011, p. 77). However, it also emphasises the problems inherent in seeing aqueducts as entirely detached from rivers during the Roman period. The Walbrook was even being cleaned in a similar way to such conduits. One has to wonder whether, as with the aforementioned *Riuus Hiberiensis* (section: 4.5), such activity could have been linked to different festivals and celebrations.

Furthermore, the middle Walbrook area has also yielded much evidence for water piping, which would suggest some sort of local network of supply. The stream features so heavily in the topography of the valley floor that it seems plausible to think such a network would have incorporated the Walbrook as a primary source. Certainly, at various different points, there was industrial type activity in the area. The evidence for metal working is perhaps not as apparent as one would expect; but there are clear pointers towards milling activity being undertaken (Rowsome, 2011, p. 412). Indeed, a well built timber cistern was found close to the Walbrook in association with an unusual amount of quern stones. Possible piping of this water back towards the main stream could have created enough force to drive mills. Certainly the sheer amount of activity involving water in the Walbrook valley makes it an intriguing centre piece to the Roman town. Surely the effect of weaving this highly significant watercourse so deeply into the urban experience could have had a powerful ideological effect.

Indeed, while it seems unlikely that London ever received an external aqueduct, the internal network of water piping was seemingly very thorough. In addition to the piping found in the Walbrook area, there have been examples found in Southwark, in the *forum* area, and further west towards the Lorteburn (Milne, 1992, p. 23; Rowsome, 2011, p. 413). It has already been emphasised how even before Roman occupation this area was a fusion point for numerous different watercourses. The prospect of a complex network of water pipes adding to this situation is notable. Furthermore, this water would have been channelled into the very fabric of nearby buildings, meaning that it may have had a direct effect on how people experienced the structure.

4.8.7 Colchester (*Camulodunum*/*Colonia Claudia Victricensis*)

Colchester was selected as the centre of the Imperial cult in the province, possessing the impressive Temple of Claudius (Wacher, 1995, p. 116). It would probably have been the British equivalent to Lyon; a town mentioned above as a focal point for a significant amount of water. Colchester would have been located in a similar watery setting, with a close proximity to a meander in the river Colne and at least five springs within the town walls (Burgers, 2001, p. 98). As a result there were numerous potential sources for an aqueduct in the surrounding landscape. While nothing has been found on the scale of Lincoln, a smaller conduit has been discovered seemingly leading into Colchester. Towards the west, a "Claudian Leat" was discovered running from Sheepen Spring (fig. 39). This appears to have followed the natural contours of the land, and it may be linked to the significant number of Roman water-mains that have been found close to the Balkerne Gate (Crummy, 1984, pp. 115-117). Any supply reaching this area from Sheepen may also have been supplemented by water from nearby Chiswell Meadow, a place heavily utilised for this purpose in later periods (Crummy, 1984, p. 27).

In the early Roman period, the Balkerne Gate was the western gateway into the *colonia* and is best conceived as a freestanding arch. It would undoubtedly have been a monumental spectacle to those travelling on the main road from London (Isserlin, 1998, p. 126).[51] In addition to its architectural scale, it was also located on the high ground with

[51] Bearing in mind the Claudian associations of the town, it is worth mentioning how that particular Emperor also established an aqueduct as a monumental entrance to Rome. The Porta Maggiore carried the Aqua

views down into the valley of the Colne (Crummy, 1984, p. 123). This was clearly an area of special importance, evidenced by the presence of multiple temples, including two directly outside the gate (see fig. 50) (Crummy, 1984; Willis, 2007a). Furthermore, a bronze figurine of Mercury was recovered nearby and provides a tangible example of worship at the site (Crummy, 2006). As outlined previously, Mercury may have been particularly related to the liminal elements of this area (see section: 2.6.5). The prominence of water, both from the visual link to the Colne and the physical piped supply, may have played an important role in the selection of Mercury for worship in this place. Moreover, the movement of water from Sheepen to Colchester may have borne a potent local ritual meaning, derived from the aforementioned importance of Sheepen in the Iron Age. These aspects of the Balkerne area may have symbolically underlined the cultural mixing that would certainly have occurred at a primary gate to such an important town.

The other interesting water conduit in the town is located opposite the Claudian temple. A pipe leads water from the Insula XV '*mithraeum*' structure, towards the North-East Gate. While the building is no longer seen as a temple, it is nonetheless constructed on one of the many springs in the town. The idea of channelling spring water out of the town obviously seems rather intriguing. Some have said that the abundance of water from this spring source led to flooding of the immediate area; therefore channelling the water out of the town has been explained as making practical sense (Hanson, 1971). Indeed, this interpretation highlights the numerous other water outlets that joined to this pipeline, effectively making this a primary drain. However, it seems strange that a surplus of spring water would not first be channelled to other areas of the town. The fact that the '*mithraeum*' lies opposite the Temple of Claudius also adds conviction to the idea that the conduit had a more significant purpose.

In this regard, by leading the water from Insula XV out of the town, it is very possible that its ultimate location was the Colne. All that has been said above, about blurring the distinction between water found in rivers and those in Roman conduits/aqueducts, gives this action an explanation. Just as external water from Sheepen and Chiswell can be linked to the town, the internal water of Colchester could surely have been linked to the external Colne. Consequently, this creates another fusion point within the local waterscape.

Claudius and the Anio Novus into the city, and its symbolic importance is perhaps denoted by its prominence in the late Roman period.

4.8.8 St. Albans (*Verulamium*)

In contrast to the academic obsession with the water supply of London, Verulamium has perhaps lacked analysis in this regard. Aerial photography has shown evidence for a presumed conduit leading towards the town from further upstream on the Ver. This shadow seems to be heading towards the Chester Gate area of the town, but the exact location of its termination is unclear. This seems likely to have been a water supply that was constructed in the late second or early third century (Niblett, 2001, p. 115). The discovery of timber pipes from Insulae II, XVIII and XXVIII suggest there was significant distribution of water by the end of the first century (Niblett, 2001, p. 77). The source of this network could have been a mortar-lined conduit, which brought water from the Ver to a point opposite the theatre in Insula XVII (fig. 34). Close to this point of termination, a fragment of a large Purbeck marble basin was recovered from the ploughsoil; it has been interpreted as possibly being derived from a fountain.[52] However, this conduit led directly through the *macellum* structure, which has led many to question the definite purpose of the building. This is even more intriguing because through its three stages of development the building is turned into a monumental structure with a central nave largely taken up by masonry bases for two large tanks.

The provision of such a grand water supply, and the eventual monumental size of the structure, has cast some doubt on its definition as a *macellum*. Niblett (2005, p. 105) postulates that the structure could have been a *nymphaeum*. It is even possible to see both interpretations validated in the long life of the structure. Of course, Niblett's proposal links neatly with the possibilities explored above for the similar structure at Wroxeter. It would appear rather short-sighted to ignore any local water traditions in deference to a Roman construct.

With this in mind, the siting of this building directly opposite a monumental arch may have been important. The association of such gateway features with bridges and water has been touched upon previously. They may have become linked to water due to their shared circumstances at the entrance of many towns. In this regard, it is also worth noting that other remains of water piping in the town have been found in association with the northern

[52] Another marble base has been recorded in Insula VIII. Niblett (2001, p. 77) has suggested that Watling Street could have been lined with such fountains. It is hard to detach such display from the clear and continuous votive activity centred on the Ver.

monumental arch (perhaps a link to the aforementioned external aqueduct) and at the Chester Gate. Both are examples reinforcing this association with water and grand entrance to the urban area. A *nymphaeum* may have been deemed a suitable feature to acknowledge these connections.

However, another important building close to this *'macellum'* structure was the town's theatre. Creighton (2006, p. 127) has noted how the orientation of this structure seems to be directed towards the Folly Lane enclosure on the other side of the Ver. Movement between the enclosure and main town is defined by a relationship with water. It has already been noted how there were many well/shaft features on the hillside containing unusual deposits. Furthermore, the crossing site of the Ver was also a place deemed appropriate for votive offerings (see section: 2.6.7). Plausibly, the orientation of the theatre could have been intended to incorporate this whole experience, rather than just the structure at Folly Lane. As the conduit supplying the '*macellum*' area was sourced at the Ver, the water used in the central monumental features of the town may have furthered this relationship to the external sanctuary. There are also a number of Antonine vaulted drains that may add to this picture. One of these ran from the south-west corner of the *forum* to the river (Frere, 1983, pp. 58-59). This certainly fulfilled practical requirements, such as flushing a nearby latrine, but that does not preclude a more symbolic meaning. Another pair of similar features interacted with other significant monumental buildings; one drained the orchestra of the theatre, and the other appears to have emptied into a ditch close to the Chester Gate (Niblett, 2005, p. 90). It is possible that these features played a part in linking the structures of the town to the local waterscape and, in particular, the area close to the crossing point of the Ver.

The Dyke systems in the St Albans area have been discussed above as a type of precursor to water management in the Roman era. In this regard, it is interesting how the later Roman period conduits appear to dovetail well with the purpose of those earlier structures. For example, the Beech Bottom Dyke projected a course along the valley to the crossing point of the Ver, and into the St Michaels enclosure (Bryant, 2007). In the Roman period, this same area of the river possessed water conduits that directed flow into the central areas of the town that overlaid the previous enclosure. Subsequently, it seems very odd to simply disconnect these two constructed phenomena in the landscape; especially considering the strength of water traditions within the area.

4.8.9 Cirencester (*Corinium*)

There is probably less definitive evidence of a water supply at Cirencester than at many of the other towns mentioned in this chapter. Indeed, the only water conduits found in Corinium were associated with the Verulamium Gate. As previously mentioned, the Roman town is now interpreted as being constructed on a small gravel spine in between the Daglingworth Brook and the river Churn (Reece, 2003; Broxton & Reece, 2011). The canalisation of both these watercourses must have been necessary to create a sustainable settlement in the location. The heavy utilisation of these rivers in the medieval period, again, suggests that we are dealing with flows of water that are hard to see as purely natural. The evidence of pipes at the Verulamium Gate adds to the difficulty in effectively separating a 'water supply' from the river (Wacher, 1963, p. 19). It has been suggested that, immediately outside the gate, the Churn itself could have provided the source of water for these pipes. This effectively means that any special importance afforded to this river is inseparable from the water supply. Another alternative could have been utilising springs to the north-west of the town and channelling the water to a *castellum aquae* at the gate. Wacher (1995, p. 308) even suggested that the gate tower itself could have doubled as this water feature. There has also been the proposal that springs around Stratton could have been brought to the town via the Gloucester Gate. All of these interpretations would add to the deep relationship this town had to its surrounding water.

While the evidence is obviously fragmentary, it again gives us this impression of Roman period structures combining to give ceremony to areas of water interaction. The major gates of this town could seemingly have possessed both bridge and aqueduct features; this could have mixed water from the two immediate rivers (which are heavily associated with the Bagendon complex, upstream) with meaning-laden spring water of the hinterland. These waters would have surrounded and permeated the urban fabric and one has to wonder whether such association is a key part of the character of Corinium in particular. If liminal watery areas were seen as ideal places for disputation and trade during prehistory, it is probably no coincidence that the town becomes a nodal point for such activity in the Roman period. The overriding presence of Mercury within the town only

serves to heighten how so-called features of 'Romanisation' could in fact be part of an enduring local logic.

4.8.10 Canterbury (*Durovernum*)

Definitive evidence for water supply at Canterbury has been in short supply over the years. The town itself lies in a valley with prominent locations to obtain water from surrounding higher ground. Furthermore, we have already seen how there are no real significant concentrations of wells that could suffice to provide water for Canterbury's public baths. Wacher (1995, p. 196) always saw the east or south east area as potentially the most likely source of external water, and the sparse remains of water conduits that had been found up to that time tended to support his proposition. There was evidence at the Riding Gate for timber pipes and this seemed to link up well with the main bath area of the town (Wacher, 1995, p. 196).

However, in 1995 there was the discovery of a fairly substantial conduit leading from the north east. It was found during excavations at Christ Church College and consisted of a bed of gravel filled lime rich concrete, capped by an *opus signinum* channel 0.16 metres wide and 0.15 metres deep (see fig. 9 for location). The channel was surmounted by a rough barrel vault of mortar-bonded re-used Roman brick and tile. There was no dating evidence found but the method of construction, and the material used, seemed to suggest the conduit was in use from at least the second century A.D. (Jarman, 1997). The nearby extant conduit house that supplied water to Christ Church Abbey is a vivid illustration of the potential within this area (Bennett, 1987; 1990). As such, it seems likely that the monks of the twelfth century, as is often seen, continued the Roman tradition of water procurement in the area. Perhaps this could also be a reason why more Roman evidence for an aqueduct has not been found, it may have been obscured by the later activity in this part of the city (including the cathedral). Nevertheless, it may also imply a perceived sanctity of the water in question, which was later incorporated into the ritual framework of the abbey.

Within the actual town, the paucity of evidence means that (outside the bathhouses) it is hard to get an impression of the flow and use of water in the Roman town. However, excavations at 3 Beer Cart Lane did uncover three water tank type features with associated pipes (Bennett, 1980). These have been interpreted as fountains and they would have been

located within the central temple precinct of the town (fig. 51). In addition to this, they are also close to the theatre, perhaps being part of a monumental approach to this highly significant and dramatically large building (Tatton-Brown, 1976). It has already been related how the temple precinct district of the town was of Iron Age significance, and how it certainly had links to the nearby water of the Stour. The concentration of piped water from the surrounding territory in this area of Canterbury could have strengthened such associations. The theatre itself is of course seen as a sophisticated example of the Roman presence within the town. The potential for water being utilised within this arena, as with the example of Verulamium above, could have changed the way people identified and rationalised the structure.

4.8.11 Caerwent (*Venta Silurum*)

The native population of Caerwent is often referred to as having been particularly resistant to Roman rule (Wacher, 1995, p. 378). However, this does not appear to have stopped development of Roman-type structures. The copious well water supply has been discussed in the last chapter, and seemed to provide for most of the northern areas of the town. The evidence for an external piped water supply was originally derived from a line of iron collars belonging to a conduit outside the North Gate (Ashby, et al., 1904, p. 93). This discovery was initially interpreted as a drain, but subsequent similar finds in a street to the north of the *basilica* (Ashby, et al., 1909, pp. 566-567) and on both sides of the north-south road to the south-west of the *forum* (Ashby, et al., 1911, p. 426), confirmed an external piped supply. Unfortunately evidence from inside the town only provides a loose impression of where the external flow was being directed. A cement-lined conduit crossed the *palaestra* of the main bathhouse (Wacher, 1995, p. 382), and could have derived from one of the original conduits found to the north. The assumed *mansio* at the South Gate also seems to have received a significant water supply, with hypocaust systems and large drainage features nearby (Brewer, 2006, pp. 15-16).

Certainly one of the more intriguing aspects of Caerwent is the evidence for the worship of native deities within the impressive temple structures. The Romano-Celtic temple, with trapezoidal enclosure, was probably not built until the early fourth century (Wacher, 1995, p. 386). However, the discovery of an altar from A.D. 152 dedicated to Mars Lenus could

be indicative of the deity worshipped in the later building. This deity is of interest because one of the main references we have to him is at Trier, at a major sanctuary across the River Mosel in close association to a spring (Green, 1989, p. 64). Indeed, he is interpreted as a healing deity, drawing on the original agricultural associations of Mars. As with Wroxeter, the linking of the town to a healing entity does raise the question as to the conception of the local water, which is so often linked to such practices. If the water was being channelled in from a spring source in the nearby hills (Hanson, 1971), it is feasible that it could have been associated with the deity in question. Clearly, this is all conjecture but the syncretism we see in the unity of Roman and Celtic deities could also have been expressed by the physical channelling of meaning-laden water around the town.

4.8.12 Silchester (*Calleva Artebatum*)

Silchester, even more so than Caerwent, seemed to rely upon well-water for the provision of the town. Again the bulk of the evidence is centred on the discovery of a wooden pipeline associated with one of the town gates; in this case, it is Silchester's south-west entrance (Hope, 1897, p. 422). A ditch was discovered with iron collars leading from the town wall, through Insulae XV, XVI and into III (fig. 31). At the wall, evidence for the conduit ended at a rough mass of flintwork, which could have been the foundation for a water-tower to raise the supply (Boon, 1974, p. 88); this would presumably have been required as the only close source of water was at a comparatively low level to the town itself. This could have been an early feature, possibly supplying a small bathhouse in Insula III. While the evidence is not particularly comprehensive, it nonetheless remains an interesting feature, especially bearing in mind the copious supply of well water in the town. Indeed, while wells have been discussed in the previous chapter, it is worth noting that some of those features were subsequently also the source of piped water supply within the town; this created a sort of internal aqueduct system. For instance, an unusually large and well-made oak trough was traced running southwards from a well in Insula VI. This could feasibly have linked with other similar timber trough structures that have been discovered in the nearby insulae (Boon, 1974, p. 88). The discovery of a force-pump is also indicative of advanced lifting of spring water sources to provide for structures such as the bathhouses. Considering the amount of votive type deposits found in wells within Silchester, such

distribution of water could have been fulfilling more than just practical requirements. In line with this, Insula XXXII contains the primary bathhouse, a stream possibly supplying it, at least one well with a votive deposit, and a suspected *mithraeum* (Boon, 1974, p. 156). Taking this into account it is feasible that the water channelled around the town and concentrated into monumental features such as the public baths was valued for its "meaning" as well as for its practical usefulness.

The prevalence of underground spring water sources within the town is perhaps unrivalled in Roman Britain; therefore it is not surprising that it was associated with more than just the baths. The amphitheatre, located just outside the eastern town walls — but inside the surrounding earthworks — was closely related to a spring. A large coping stone found beside this water source suggests the possibility of an ornamental pool or surrounding structure (Boon, 1974, p. 159). Perhaps, as with the examples of St. Albans and Canterbury, this water formed part of the theatre experience. Certainly a strong link between water and amphitheatres is not unheard of in Roman Britain. At Frilford, for example, a structure was built in a boggy landscape with a possible spring incorporated (Rogers, 2011a, p. 98). Indeed, a feature originally interpreted as a 'royal box' could, in fact, have been part of a construction that directed the flow of this spring within the arena. Frilford has been seen as a type of rural religious centre, with a prominent *temenos* that was probably constructed due to the watery nature of the site (Hingley, 1982). The function of the amphitheatre would appear to have been related to this ritual/religious function, rather than more traditional entertainment often ascribed to such buildings. This relationship to the landscape was perhaps also further ingrained with the positioning of the amphitheatre at the bottom of a shallow dry valley which runs south towards the River Ock (Hingley, 1982). Returning to Silchester, while nothing as convincing pertaining to ritual function has been found in association with its amphitheatre, the proximity to potentially sacred water is worth noting. Despite not being a town associated with a strong visible river (as with other examples), the highly sophisticated manipulation of underground sources would have seemingly made water highly visible within many areas of the town. Indeed, combine the 'Roman' piped water with the earlier dyke system (that may have captured a degree of rain/ground water) and the settlement would have been inextricably linked to the flow of water.

4.8.13 Other towns

The evidence for York's (Eboracum) external supply of water (and internal distribution) is not as marked as for other towns. As with so many of these settlements, what seems clear is that such an external supply was present in the *colonia*. The recovery of lead pipes close to the bathhouse and of terracotta pipes on the fortress side of the river is testament to this fact. The latter were very similar to examples from the impressive aqueduct of Lincoln (Wacher, 1995, p. 175). Furthermore, a stone street fountain from Bishophill Junior (fig. 30 for location) represents probably the best preserved example of such a feature in the country (Ottoway, 1993, p. 90). In fact, the fountain is similar in construction to examples in Pompeii and Herculaneum. The similarity is not without interest, as some of the fountains on these sites may have had ideological meaning inherent within their placement (Hartnett, 2008).

One of the more intriguing finds relating to water supply is the large lead pipe that was recovered from excavations in Wellington Row (fig. 30 for location). This mid-second century conduit would probably have crossed the bridge over the Ouse and connected the fortress and *colonia* water supply (Frere, et al., 1990, p. 325; Wacher, 1995, p. 175). The powerful ideological potential of bridges has already been illustrated in this thesis. Yet, in this case, the addition of a water conduit adds another dimension to the picture. Remembering the water related dedication to Oceanus and Tethys within the colony, we must at least give consideration to the symbolic effects of joining presumably somewhat segregated communities. The increased hybridisation of the *colonia* and fortress settlements could have been expressed by this physical joining together. York also possessed an impressive sewer system that appears to have been constructed to drain the legionary baths (MacGregor, 1976, p. 1). As with Lincoln, the size of the system would appear to imply that a great deal of water was being utilised in the town. Added to this, examination of the silt deposits in the sewer produced the seeds and pollen of plants which prefer limestone subsoil. Ottoway (1993, p. 31) notes that the source of any aqueduct, therefore, must have been located in limestone country. This could have been in the region of Tadcaster, some 20 km to the south-west. Clearly, York may have possessed a significant aqueduct, even if no traces have been found external to the settlement.

Within the same *civitas*, Aldborough (Isurium) seems to have risen to prominence in the Hadrianic era. There is even less evidence here of an external aqueduct. However, what

has been discovered is a series of tanks that probably would have been used to store water. It is unclear whether these were supplied by conduits, but they nonetheless could have been important structures. The best preserved example at the North Gate measures internally 2.7m by 1.8m and was made of stone (Wacher, 1995, p. 404). It has been suggested that these could have been filled by run-off of water falling onto the main gate structures. While the evidence is too fragmentary to make any firm interpretation, such activity would be of interest considering the sanctity of gateways that has been versed in parts of this thesis. There is a similar scant picture on the fringes of the province at Carmarthen; the only evidence here is a leat that ran under the second century walls, presumably representing an initial military water supply (Goodburn, et al., 1979, p. 272).

Chichester (Noviomagus) provides us with one of the best epigraphic sources for the veneration of water related deities in Roman Britain. The dedication of a temple to Neptune (*RIB* 91) would seem to communicate an accepted heightened value of water. Unfortunately, the evidence for an external water supply is not particularly forthcoming. Wacher notes how the antiquarian sources speak of such a conduit entering at the North Gate (Wacher, 1995, p. 264). This is interesting because these reports could well link to the earthworks that were mentioned earlier in this chapter (section 4.7). The north-south entrenchments would certainly have been in the area of the North Gate of Chichester. It is possible that the spring sources that were outlined previously could have been utilised in the Roman period. This would suggest a degree of negotiation with these prehistoric monuments; perhaps utilising them for the deliberate supply of water.

Yet, a more certain source of water would have been the Lavant itself. The aforementioned chalk origin of the watercourse would have meant it was a particularly good source of water for consumption and also any type of display. Bradley (1971, p. 30) refers to how the course of the Lavant departs from its original flood plain when it meets Roman Stane Street. It then follows a course around the town before discharging into another stream close to the Chichester Harbour and present city wall. This has been interpreted as a Roman era canalisation of the river, essentially turning it into an aqueduct for the town. Diverting the river may seem like a very Roman statement. However, set within the context of the Chichester entrenchments outlined above, it almost presents as a predictable course of events developing from activity in the Iron Age. Not only is another

river to river connection created by this diversion, but the water based link to the Downs is made complete.

As with many of the examples noted in this chapter, the substantial evidence of drains hints that such a large scale supply would surely have been in place. That aside, there is also an unusual stone cistern that penetrated deep into the water table (see fig. 27 for location). This was massively constructed of large squared greensand blocks and the bottom was around three metres below the contemporary ground level (Down, 1978, p. 149). The water would have been pumped up into the tank manually, before presumably being channelled through pipes to the nearby baths (Frere & Tomlin, 1991, p. 290; Wacher, 1995, p. 264). In many ways this represents an internal aqueduct; certainly the technology of raising the water under pressure elevates it above simply being a well. Clearly, without a sense of wider distribution in the town, it is difficult to say how significant this feature would have been in the settlement. We can only return to the Neptune dedication and surmise that underground water within the bounds of the town could have held special value.

At Gloucester (*Glevum Colonia*), an aqueduct is presumed by the evidence of iron collars from wooden pipes near the East Gate; plus several other examples within the town walls (Burgers, 2001, p. 98). There have been a number of water tanks found within the town (Wacher, 1995, p. 158; Burgers, 2001, p. 98). However, the most intriguing is a 9 metres wide example that has been located in the fortress, possibly forming a terminal reservoir for an aqueduct (Stephens, 1985b). Wacher (1995, p. 159) noted that the water supplying this feature could have come from north of the town; he attributed this to a faint linear feature that had been detected running towards the east corner of the settlement from this trajectory. Hanson (1971, p. 367), on the other hand, suggested that the south of the town, towards Robins Hill Wood, would have provided a more obvious source. As at Canterbury, a later monastic water supply was located in this area and could have been based on a Roman precedent (Hanson, 1971, p. 59; Hurst, 1988, p. 66). This source would have only been a few miles distant from the villa at Great Witcombe, which was a site centred on a venerated spring. Indeed, there are a number of similar spring sites within Gloucestershire such as Chedworth Villa (Webster, 1983), Lydney temple complex (Ross, 1968, p. 22), and at Lower Slaughter (Rattue, 1995, p. 29). It seems rather simplistic to think that water tapped from such sources would become devoid of meaning. Therefore,

the central tank within the fortress at Gloucester could have played a similar role to the examples in the Upper city at Lincoln – providing a focal point for water that had an enduring local meaning within the landscape. These comparisons perhaps start to break down the assumption that colonies were focused purely on creating an ideal 'Roman' settlement in a provincial setting.

Finally, Exeter (Isca Dumnoniorum) was another legionary fortress that became a prominent town towards the end of the first and early second century. The legionary bathhouse was erected around 60-5 AD and a conduit was needed to supply the estimated 318 m^3 daily water demand of the structure (Henderson, 1988, p. 98). The original conduit is thought to have been sourced from a copious spring in the area of the medieval St Ann's Chapel; again this seems to be an example of later religious buildings utilising the logic of a water supply set out in the Roman period. However, when the first town was laid out in the early second century, a new aqueduct was constructed that approached the *forum* area from due north instead of entering via the *porta decumana* (Wacher, 1995, p. 338). This would have meant the aqueduct crossing the defensive ditch on a bridge supported by wooden piles (fig. 52), before leading water into the western corner of the *forum* (Henderson, 1988, p. 115). This new water supply seems to have been sourced from springs further up the Longbrook Valley, in the vicinity of modern Well Street (Henderson, 1988, p. 115). While the evidence for the course of the legionary conduit is rather sparse, this new direction would have required more extensive engineering for possibly little practical gain. It is possible that a greater understanding of prehistoric history of the site could help to explain such a decision. Of course, the increasing influence of civilians, after the legions moved away, could have meant the adjustment of water flow to better synchronise with the surrounding landscape.

In this regard, it is worth making reference to how the second century aqueduct certainly addressed the Rougemont Hill. The existence of a later Norman castle on this high ground means that there has been little modern excavation. Nevertheless, there have been some suggestions that it could have been a site of prehistoric activity. Within a 15 kilometre radius of Exeter, at least eight Iron Age hill-forts occupy similar positions overlooking the floodplains of the Exe and its other tributaries (Henderson, 1988, p. 92). Added to this, the hill is also a source of unusual red trap stone (which is the reason for its name), something that could have added to its significance in the pre-Roman period.

Moreover, Exeter lies astride a sloping spur which is thought to have carried a prehistoric ridgeway down to a ford across the River Exe (Henderson, 1988, p. 92). This suggests that the direction from which water was conveyed would have represented an important route-way for people before the crystallisation of the Roman road system. The springs of the Longbrook Valley could have been important stopping points as people moved through this landscape. As a result, the direction of water supply could have been considerate of the legacy of movement in the immediate area of the settlement.

4.9 Military sites

It is interesting that some of the best evidence for sites with multiple aqueducts derives from forts on the periphery of the province. Sites at Lanchester, Pumsaint, and South Shields all had multiple aqueducts (four, three and two, respectively); Great Chesters had a conduit on par with a town such as Dorchester; forts at Glenlochar, High Rochester, Stanwix, Birdowswald, Birrens, and Catterick, all had stone channels (Burgers, 2001, p. 32). The reasoning behind these smaller sites seemingly being provided with such a surplus of water is, on the surface, slightly puzzling. It could simply be a matter of preservation; the evidence of towns that has been versed above is influenced heavily by continued occupation on the site. In the case of these frontier forts, there is rarely extensive modern occupation either at the location, or in the immediate periphery. Subsequently, we are probably more likely to trace multiple conduits to a fort than to a town with similar potential.

Nonetheless, even if we say that town water supply is under represented in the archaeological record, it still means that some of these fort sites were receiving as much piped water as a chartered town. It is surprising that this has not received more attention from archaeologists; the general approach is just to underline practical water requirements for bathhouses and latrine flushing, with the capacity for a temporary increase in population due to troop movements. Another reason put forward is the function of forts as centres of advanced industry that would require a sophisticated water system for resource extraction; this is particularly relevant in the example of Pumsaint which was close to the Dolaucothi gold mines. While all of this reasoning is fairly sound, the approach to the evidence is rather one sided. By in large, the establishment of water supply at forts is portrayed as part of a conscious decision to cultivate a small part of Rome on the periphery

of the Empire; the cultural comforts and advancements of the Mediterranean serving as a stark reminder to those outside of the unified 'civilisation' of the Roman world. Without going too deeply into the extensive arguments regarding the purpose of frontiers and forts, this seems a rather limited interpretation. This is especially true if we consider the racial makeup of many soldiers staffing these peripheral sites, and the degree of permeability for movement of people across so called frontiers.

Taking this into account, perhaps the approach that has been used above for towns in Britain can also explain the fort sites. A point of emphasis within this chapter has been the recognition of how directing and manipulating water could have profoundly affected the conception of new 'Roman' structures. Indeed, by deep association with water one could tie the new monumental infrastructure into a more accepted part of the on-going narrative of the local landscape. The key here is the acknowledgment of an underlying similarity in the power water held in multiple traditions. Applying this logic to these peripheral fort sites is appropriate. After all, they were the most tenuous type of settlement within the province; often lacking immediate precedent in prehistory or a permanent population to establish identity. With this in mind, perhaps the development of an advanced water supply was a symbol of strength that could be understood and shared by the diverse people who were closely associated with the forts. Manipulating water could help align a fort to the surrounding landscape, projecting an enduring strength despite their inherently changeable qualities.

4.10 Discussion

The aim of this chapter is not to claim that aqueducts were not practical structures; but, instead, to put forward the notion that they were not *only* practical structures. Some may argue that this is not a novel idea, and that the symbolic element of aqueducts has been thoroughly established. However, the vast majority of previous contributions have quantified this importance from a very Roman perspective. Not only that, they have tended to emphasise structural scale as the key determining factor in the symbolic impact of an aqueduct. The difference in this account is a concentration on the value of the actual water, rather than on the structure that supported its flow. This is based on the logic built up in the previous chapters, which has outlined the significance of both underground and over

ground water flow in the Roman town. The idea that these forms of water were meaning-laden and could define space is a key realisation. Therefore, it stands to reason that the power of aqueduct water, sourced from these 'natural' sources, could have been vastly underrated in the treatment of towns. The idea that 'man-made' intervention with water could nullify its special nature is somewhat undermined by the fact that both rivers and wells maintain their significance in the urban space. Indeed, urban rivers would have been transformed and marshalled into very different forms in certain areas; nonetheless they seemingly maintained their meaning. This approach subsequently opens up the potential for local water sources, imbued with meaning stemming back into the Iron Age and beyond, playing a key role in determining the conception of urban space in the Roman period.

In many ways, it is hard to gain an informed picture of aqueduct (or conduit) water supply in Roman Britain; the evidence for some towns is particularly sparse. However, the aim of the above is to try to show how there is scope to interpret profound impact from comparatively meagre supply systems. It has been emphasised how the flow of water could represent a hybridising force within a settlement. The introduction of piped water represents an increased complexity in the relationship between settlement and water. It could allow meaning-laden water to permeate the fabric of the urban settlement and therefore could have had tangible impact on the conception of many different structures and spaces within any given town. Taking these ideas into account, one can no longer look at the implementation of such infrastructure as merely a harbinger of full-fledged Roman identity. The technological innovation may stem from the incoming Roman influence but the water would have harboured the story of the local landscape from years before.

Although the piped water mentioned in the towns above obviously has a degree of practical need, many of the examples represent potential for more ideological and symbolic links to the waterscape. The aqueduct at Lincoln is the most advanced structure of its kind in Britain, but increasingly it is the link it makes between prehistoric water significance and the Roman town that is being explored (Jones, 2003b). Similarly, the focus of study in St. Albans has shifted towards Folly Lane in recent years. The perspective from central urban structures (such as the theatre), across the Ver, to the complex have been highlighted as significant (Creighton, 2006, p. 127). The early water supply seems to further this interpretation by linking the river monumentally to this area of the town. In London, the

pivotal crossing points of the Walbrook and Fleet are heavily influenced by ‘man-made’ manipulation of water flow that further serve to accent liminal productive landscapes.

One must also consider the impact that re-evaluation of piped water has for the comparative status of Romano-British water supply in general. Taking away the emphasis on the structure of a conduit, in preference for the water, creates a new dynamic. In this regard, we cannot dismiss the aqueducts of Britannia for their comparative simplicity to examples on the continent. While the pragmatic observation of Stephens (1985a) obviously denotes an accepted truth (i.e. that a more dynamic landscape requires more sophisticated engineering), one also has to consider cultural preference in the expression of a meaning-laden water. Although there was no practical need for the massive bridging structures, such as the Pont Du Gard in southern France, people in Britain could also have been very receptive to different transmission of water. The popularity of leat style aqueducts can be a choice based on relative price and the volume of water required; but the river-like nature of their appearance in the landscape is somewhat thought-provoking. Kamash (2012) has recently noted how the assimilation of water technology in the East had similar concerns at heart. Some elements of the incoming Roman innovation were shunned due to a general cultural preference. Taking this into account means that it is somewhat short sighted to proclaim the aqueducts of Gaul as having greater importance than those in Britain. In fact, the pronounced local traditions of places like Lincoln, could have possibly given their aqueducts far more profound impact than some of locales on the continent.

All of this links into something that has been deliberately avoided in this chapter. In Britain, the main urban beneficiary of an aqueduct supply was the bathhouse. This will be covered in the next chapter and therefore follows a course of logic towards structures that are understood solely as part of an incoming Roman identity. However, the thoughts expressed in the last two chapters outline the potential for the water supply of bathhouses being distinctly hybridised. Ultimately, our conception of these, almost stereotypically ‘Roman’, features has to be examined from a new angle.

4.11 Conclusion

This chapter has explored a wider reasoning behind the creation of aqueducts in ‘Roman’ towns. The primary theoretical view of this thesis is perhaps best illustrated in the examination of ‘running water’. Indeed, the continued sentiments of sophistication and

superiority attached to this term in the modern West underline the bias of our approach to the Roman period. Aqueducts continue to be described as pillars of civilisation on a par with the vast railway systems of the British Empire, and served as an inspiration for our own twentieth century waterworks.

In many ways, this strong vein of identification with the Roman period is confused even in regards to the evidence found in Italy. Here the water of springs and rivers was deified, personified, and rich with messages for the individuals interacting with it. There seems little evidence to support a change in this conception just because the said water was tapped and guided by a 'man-made' conduit. The blurring of the distinction between 'man-made' and 'natural' watercourses is perhaps best seen in the treatment of canals; the cleaning and maintenance of which was linked to established festivals relating to the natural world. In this way, they could also tie communities and landholders together, by a mutual need to maintain water flow. Furthermore, there seems to have been a clear ideological value to bringing external waters into places like Rome, which was not based purely on conspicuous consumption and grand scale. Water had a power to define and transform elements of the urban landscape. The aqueducts of Rome were like new rivers guided into the capital to enrich all facets of life. Even if the water was impure to the taste it could still inspire wonder and exude power. The Aqua Alsietina is a case in point. Despite Frontinus noting its comparative impurity (Frontin. *Aq*. 1. 11), it was the material with which Augustus could make whole the *naumachia* and present bold re-enactments of past glories. Of course, this scale of Roman water supply was not mirrored in Britain. Yet, what must be emphasised is the way in which water could define and legitimise power structures by weaving them into the mythical natural landscapes where they were sourced. This was not domination of water; it was a glorious celebration of its power and unity of purpose with the built Roman town.

A similar respect for the power inherent within the flow of water means it could have been an area of key concern in establishing the legitimacy of new Roman towns in Britain. If we conceive of water as an audible flow, then the conduits created to supply Roman-British towns would have been rich with ancient associations of the local landscape. Channelling such water into the town would embed the new monumental features into a recognisable waterscape; the importance of the town would be signified by the close relationship it formed to this charged medium. By the same merit, this seemingly 'Roman'

process of channelling water would become just us much about the local values inherent in the flow. In turn, the concentration of water within certain structures of the town could potentially have altered their conception from accepted Mediterranean forms.

The notable examples of *macella* mentioned in this chapter provide an interesting case for such a phenomenon. Their presence has often been perceived as a sign of the British elite embracing a Mediterranean lifestyle; ordering food at the *macellum*, spending the afternoon at the baths, and entertaining at home in the evening (Laurence, 1994b). They could, however, represent a more robust acceptance of new forms of buildings based on a crystallisation of very traditional practices within Britain. The notable concentration of water within the classical *macellum* form could have echoed meeting points by places of watery significance in the Iron Age tradition. As emphasised in this chapter, if piped water maintained the meaning of its source, it could seem entirely agreeable that such a place would be suitable for business and socialising. Similarly, the use of water in association with theatres could have transformed the way people experienced that particular building form within the town. We are quick to make such interpretations about rural structures because they occur outside an urban realm that has been so strongly linked to an incoming civilised identity. Of course, if the flow of water from aqueducts is being secured from these external rural locations, it makes sense to consider the transference of such values into the new setting.

This chapter works on the premise that if we can attribute special values to rivers and springs in the past, then we should not be so quick to dismiss the potential of 'man-made' conduits that channelled such sources into urban areas. In fact, the piped water networks of Roman towns could have been fundamental in creating familiarity and identity for different people within a settlement. The way water can be manipulated and infused into the very fabric of a building and street network could have manipulated the perception of traditional buildings/spaces within the landscape. In this, as in other manifestations, we are reminded how layered and textured cultural forms can be seen to be when scrutinised. Therefore a settlement may look typically 'Roman' to us in the archaeological record, but in reality the experience could have been predicated on the complex associations of the water that permeated its structures.

In short, aqueducts can be considered features defined by their hybridity. They may have represented 'man-made' physical manipulation of water, but this did not appear to be

at the expense of the 'natural' value of this medium and its powerful associations. Accordingly, there is likely to have been practical reasons for their creation, yet this need not erode the symbolic and ritual functions they possessed. In addition, while they may seem to be a distinctly 'Roman' addition to Britain, their profound links to meaning-laden waterscapes raises the possibility that they were more thoroughly embedded into their local context than previously thought. This means that their construction was likely to have been the product of hybrid motivations. In some places we may be seeing incoming Roman efforts to aid legitimisation and success of a settlement with the incorporation of powerful water flow. At other towns, new construction techniques of the Roman period may have been an outlet for local communities (or elites within them) to further long-lived traditions associated with water; the creation of an aqueduct in such places could be a continuation of monumental interactions with waterscapes documented in the Iron Age. There is even the possibility that all of these perspectives could be present together. Acknowledging this hybridity of aqueducts contributes to an increased complexity in the character of urban development in Britain. Moreover, it fundamentally undermines the idea of a distinct incoming 'Roman' feature-set upon which we can generalise function and meaning.

Chapter 5: Bathhouses

5.1 Introduction

The last element of urban water to be considered is the bathhouse. This represents a logical progression from structures, such as bridges, that are fairly familiar in both prehistoric and Roman traditions, to something at the other extreme of settlement identity. The bathhouse is the archetypal Roman building (Laurence, et al., 2011, p. 203); they are the backbone of any debate that endorses transformation and alignment of a temperate European Iron Age culture with a Roman identity. They resonate so strongly with the Mediterranean, in both their purpose and physical form, that it is extremely hard to escape traditional 'Romanising' debates. The logic behind their uptake frequently returns to some sort of compulsion to 'keep up appearances' and embrace an incoming fashion from distant Rome (Potter & Johns, 1992, p. 103; Rook, 2002, p. 5). Subsequently a lack of bathhouses in any area of the Empire has been conceived as indicative of a disengagement with Roman practice (Laurence, et al., 2011, p. 203). As such, we are left with ideas of the great unwashed 'barbarians' clamouring to embrace a defined bathing process because it represented a form of cultural advancement. Too often this decision is portrayed as a given; an approach which unfortunately betrays our lopsided cultural alignment to the 'idealised' Roman period.

This chapter seeks to reinterpret the way people viewed bathhouses in Roman Britain on the basis of the ideas set out in previous sections of this thesis. Part of this will involve analysing the varied purposes that these structures had, even within Roman Italy. Indeed, medicinal, religious, political, social, economic, and leisure purposes are to be found within the core tradition of the baths in the Mediterranean. By establishing this malleable identity to the baths, one can start to look past accepted logic involving their uptake in northern provincial settings such as Britain. In the previous chapter, the sources of water for these structures have been explored for many of the pivotal towns of the province. The aim was to show how water-flow (even through 'man-made' channels) could have still held meaning for people living within these towns. Indeed, as previously noted, the strong prehistoric associations with many such sources could have transformed the conception of a range of archetypal 'Roman' structures in the town. As a primary focal point for this water, the bathhouses were a type of structure that could have been distinctly hybridised.

The strong traditions concerning water during prehistory could have made such a building an appealing concept for people living in these towns. With this in mind, the possibility of bathhouses being a continuation of a Late Iron Age tendency to meet and socialise close to watery locales will be explored. As such a principle building type, any reinterpretation of the bathhouse must lead us to question some of the motives behind Roman urbanism within temperate Europe (Laurence, et al., 2011, p. 223).

5.2 The Roman Bathing Tradition

Bathhouses throughout the Empire have developed a sort of monolithic identity for archaeologists. As mentioned above, they are a phenomenon we see spread out from the Mediterranean; thus, writers have been quick to give them a universal cultural value. Part of this cohesion between the vast numbers of baths that have been discovered is the ascribed value of leisure. By its very nature, the term is general, and has come to embody a requisite part of life in the modern West. Consequently, the concept is crucial to the way we define 'civilisation' and must have a focal point in the past to satisfy the continual parallels we make between the Roman town and its modern successor. As numerous, and often large, structures the bathhouses are a suitable building type with which we can accommodate these sentiments on a grand scale. They remain at the heart of the popular image of Romans relaxing and enjoying their free time, and the pleasures their culture provided. There is a sense in Rome that the baths were conceived as places in which to relax and enjoy life; the increasing move towards providing space for recreational activities in the capital is evidence of this point (Fagan, 1999a, p. 76). Laurence highlights how the baths would have had their own soundscape of pleasure, masseurs slapping flesh, men grunting during exercise, and people splashing into water (Laurence, 2009, p. 67). At the same time, it is acknowledged that there was still a place in society for the more traditional 'stoical' baths linked to famous figures of the past, which individuals like Seneca may have preferred (Laurence, 2009, p. 66). This observation highlights the subjective nature of the terms 'pleasure' and 'leisure' and also the way that the baths accommodated various different interpretations on the theme. So while it is tempting to identify more with the leisure activities so well attested in Imperial *thermae*, there is still a sense that some bathhouses would have accommodated an entirely different definition of leisure.

Subsequently, one wonders to what extent these descriptions befit northern provincial bathing habits, where traditions of leisure are hard to detect in the archaeological record.

The classical writer Galen points out, while talking about Germans on the periphery of the Empire, that "ponds and rivers are to them as the bath is to us" (Gal. *De Sanitate Tuenda* 1.9). At first glance, this statement implies that people in temperate Europe were using water for both leisure and hygiene, while casting the activity as culturally less advanced. However, as the previous chapters of this thesis attest, such a perspective undervalues the northern European relationship with water. Despite his probable intention to underline Roman superiority, Galen is actually linking traditional provincial water traditions to the act of bathing in a Mediterranean setting. Irrelevant of his objectives in this statement, it underlines a set of pre-Roman cultural associations that would have directly impacted the conception of the bathing process. As a result, by giving the element of leisure primacy in a province like Britain we propagate the sense that bathing was primarily about emulation of an incoming Roman standard of civilisation. At the same time, we undermine the importance of a myriad of other functions that could have been more relevant in the provincial periphery. Indeed, what will be emphasised below is how local concerns had a strong influence on the conception of bathhouses even in Italy and therefore their uptake in the northern provinces (like Britain) could have been, in part, due to their ability to mesh with local practices.

From a structural point of view, these buildings are often split into the somewhat problematic groupings of *thermae* and *balnea*. These terms have their origin within primary sources from Rome, such as Martial, but there is a lack of clarity on the requirements needed to satisfy each definition. On the surface, '*thermae'* seems to imply the addition of a heated element; although the majority of bathing establishments had such facilities. Fagan (1999a, p. 14) has highlighted how some baths have even been represented as both *thermae* and *balnea*, depending on what source you consult.[53] Modern scholarship has often emphasised elements of scale or grandeur as the primary attribute of the *thermae*; the huge structures provided by Imperial benefactors in Rome are a case in point. This definition may be acceptable in the capital but it inevitably creates problems when analysing the provinces. The baths at Wroxeter and Silchester have both been interpreted as *thermae*, but their direct comparison with the contemporary structures of Rome

[53] He notes the example of the Baths of Sura (Fagan, 1999a, p. 19).

somewhat stretches the definition. Furthermore, some supposed *balnea* in Britain were successful structures that probably had an impact comparable to the *thermae* of the province. Martial asserts the luxury of the *thermae* over the *balnea*; but it is debatable how such a definition could logically transfer to outlying provinces like Britain. From an archaeological perspective, the remains of the province do not necessarily lend themselves to interpreting this grandeur; certainly internal decoration can usually only be partially assessed and is often assumed. As a result of these issues, this chapter, while noting the type that has been ascribed by archaeologists, will not make a point of enforcing a sense of differing status.

Within any type of bathhouse there were also a series of specialised rooms which were part of an accepted bathing routine. The *calidarium* and *frigidarium* (hot and cold rooms) were pivotal rooms that were found in the majority of public establishments. These stock characteristics of baths are well versed elsewhere (e.g. Nielsen, 1993), and it is not necessary to fully document the specifics of the accepted bathing process.[54] While these considerations obviously form a part of interpreting how these buildings were used, it is limiting to apply them over such a huge swathe of geographic territory and time. Indeed, with smaller provincial examples people are often more willing to emphasise the conformity to these basic routines (Nielsen, 1993, p. 92). While the construction to a certain style can be traced over this large catchment area, the way people experienced each bathhouse would doubtless have been somewhat different. The 'secondary' associations of these structures could actually be more telling of their purpose (Fagan, 1999a, p. 10).

5.2.1 Social and Political Bathing

This observation does not stem only from the comparison between northern territories and the Italian heartland, but the acknowledgement that diversity reined within bathhouses south of the Alps long before their spread across the Empire. In this vein, the first aspect that one must consider is the crucial social element of the bathhouses. This is a role that is continually emphasised by those who write on the subject, and by its very nature indicates diversity and difference as a key part of the bathing experience. The large *thermae*, particularly the massive examples in Rome, were frequented by a broad range of society

[54] Generally the most basic bathing routine would be to visit the medium heated room, process to the hottest room, return to the medium heated, and then onward to the cold room (Fagan, 1999a, p. 10).

and were inevitably a point of contact in an increasingly populous urbanised world. As Fagan (1999b, p. 33) points out, there is nothing explicit that counters the argument that even slaves were allowed to frequent these structures as clientele. Indeed, there is no direct evidence that implies that these lowest members of society were banned from any establishment, or required to bathe in special places. There is a line of thought that suggests that there could have been a sort of unwritten conformity to the particular times people visited the baths. Laurence, for instance, mentions that it is possible that only the elite would have had free time to use the baths at the optimum times (Laurence, 1994b, p. 108)**.** However, it is hard to apply such logic in a general sense, especially outside of Italy. Therefore, it seems reasonable to suggest that the social diversification within a bathhouse, at any one time, could have been marked. This would have facilitated interaction between people from very different backgrounds for many contrasting purposes. Clearly this is why bathhouses could often develop a link to shady social interactions such as prostitution, scheming or petty theft. The presence of the latter is remarkably well preserved in the archaeological record, with numerous curse tablets relating to the theft of clothing or other personal accessories (Fagan, 1999a, p. 37). There was also undoubtedly the potential for more nefarious dealings between local elites that could have represented organised crime.

As a point of confluence for many different types of people, it was inevitable that the bathhouse would become an arena for economic activity. There is widespread evidence of shops incorporated into these buildings and the sale of food is of particular note.[55] Indeed, Martial portrays one Aemilius as eating eggs, lettuce, and fish at the *thermae* (12.19). A *graffito* from outside the *forum* baths at Herculaneum confirms this activity; it is a price list that documents drinks, hog's fat, bread, cutlets and sausage (*CIL* 4.10674). This sort of evidence makes one imagine the baths as a central point for street-food type vendors, the like of which are still witnessed in many Italian towns and cities today. Incidentally, it is worth noting that this type of food invariably maintains strong links to local communities. Indeed, street-food consistently represents local tradition and practice even up to modern times. This, importantly, provides another layer of diversity to the bathing experience outside of its representation as a unified phenomenon.

[55] The fact that many bathhouses were close to the local *forum* and *macellum* would have increased such activity.

In a less direct manner, the more organised activity of 'dining' was also part of the bathing experience. Fagan (1999a, p. 22) notes how Martial makes numerous references to meeting dinner guests at the baths, as a type of prelude to the actual event that would presumably have taken place within his private residence (e.g. Mart. *Ep*. 11.52.1-4). Sometimes this is a matter of spontaneity, whereby the idea of dining is a product of meeting a certain group of people at the baths. Laurence (1994b, p. 110) mentions how the best time to frequent the baths (due to ideal temperature) would have fitted well into this role as a prelude to dining. Therefore, either by spontaneity or arrangement, the place would have formed an essential part of the Roman dining experience. Both observations link the act of bathing to food consumption. On the surface, this may not seem like a particularly profound connection; yet, when one applies this logic to the provinces it becomes a more notable phenomenon. In temperate Europe there was a distinct feasting culture (Murray, 1995; Arnold, 1999; Poux, 2000; Ralph, 2007) that was highly ritualised and involved in the formation of identity. The potential integration of this type of activity into the function of a bathhouse immediately alters the parameters within which we may assess the experience.

Another prominent function of bathhouses was acting as a platform for the production of political power. The social diversity of the clientele meant the construction of new baths was a boon to any potential benefactor. The *thermae* of Rome are monumental examples of this role; Agrippa (for Augustus), Nero, Titus, Trajan and Caracalla were amongst the more prominent figures who constructed these massive urban features as a means of influencing public opinion. Nero even tried to use his baths on the Campus Martius to engineer fundamental social change; he was the first to expand the activities that would take place in these buildings—with the introduction of rooms for lectures, poetry-reading and music (Nielsen, 1993, p. 46). He was probably trying to broaden the role of the baths to encourage more of a Greek gymnasium style that encompassed many different activities (Tamm, 1970). Trajan took this ideological element even further, with the construction of what DeLaine (1999a, p. 70) calls "an entirely self contained cultural world". Such a structure undoubtedly re-aligned the social traffic of Rome away from traditional centres such as the *Forum Romanum*. This imperial patronage of bath buildings was also prominent in the wider framework of Italian towns. Records show the construction or restoration of bath buildings by Augustus and Gaius at Bologna (*CIL* XI, 72), Antoninus

Pius at Ostia (*CIL* XIV 98) plus Tarquinia (*CIL* XI 3363) and Caracalla at Pinna (*AE* 1968, 157). The actions of the Emperor naturally had a filter down effect, with other figures of importance coming to see the patronage of bathhouses as a genuine source of prestige within their communities. As DeLaine (1999a, p. 72) notes, important senators, such as Pliny the Younger at Como (*CIL* V 5262), were more than willing to follow this example. Moreover, there is even record of Ceionia Demetrias, Commodus' concubine, restoring baths at Anagni at her own expense and subsequently receiving a statue in the *forum* (*CIL* X 5918). The whole process became a complex system of euergetism, in which the benefactor, as much as the recipient community, made substantial gains (Zajac, 1999, p. 100).

It is important to note the large Imperial benefactions because they inevitably led to more small scale imitation on the local level. The ambition to ascend up the political ladder may have been part of this; the role of the *aediles* was at one time to oversee the running of the baths (Nielsen, 1993, p. 125). However, this system could also have given a very local flavour to some bathhouses in Italy and beyond. The vast majority of bathhouses outside Rome (in Italy and the provinces) were constructed by locals, either as part of civic authorities or as private benefactors (Fagan, 1999a, p. 142). It is also possible that there was no distinction between civic authorities and private benefactors and that in reality responsibility for construction and restoration fell to the same people. Regardless of this, there is a strong pattern in the epigraphic record suggesting local financing of these structures, something that is inevitable considering the numbers of bathhouses established outside Rome. Many of the inscriptions relating to definite private benefaction refer to unknown locals,[56] but there are also examples of very successful individuals (who had moved away from their home on Imperial business) arranging for these structures to be built in their place of origin. Fagan (1999a, p. 153), in his epigraphic sample of the phenomenon, lists a *praefectus Aegypti* building a bath for his native Volsinii (*CIL* 11.7285), a *primiplaris* and *tribunis* doing likewise at Fanum Fortunae (*CIL* 11.6225), and even Pliny the Younger leaving money in his will for a bathhouse at his native Comum (*CIL* 5.5262). These examples show that, even for individuals who had travelled away

[56] This group also contains some notable female examples; one Vocina Avita of Taglis (Tíjola, Spain) constructed baths at her own expense and gave the town a considerable amount of money for the upkeep and perpetual use of the structure (*AE* 1979.352).

from their native lands, the bathhouse was seen as the appropriate vehicle to illustrate their success on a local level.

These ideas of local influence are particularly relevant when we consider the differing cultures of the provinces. Moving outside Italy, but staying in a Mediterranean setting, the baths of Leptis Magna (Libya) are perhaps especially relevant. They were constructed throughout in rubble concrete, with vaults and domes providing an architectural profile that would have been in marked contrast to the more traditional architecture of the surrounding Roman city (Wilkes, 1999, p. 21). It is important to note, with regard to the culture of benefaction that has been discussed above, that the original plan of this bathhouse was changed with several new structures being added. These additions were timber roofed and built in orthostat and rubble concrete combinations (*opus africanum*), a local technique (Wilkes, 1999, p. 23). Further to this, the internal decoration was given an overhaul with hunting scenes proliferating. In the *frigidarium*, a painted frieze, 1.60 metres high, was added depicting the hunting of lions and leopards. The suggestion is that these innovations could probably be attributed to a local wealthy individual who possibly procured wild animals for the nearby theatre (Wilkes, 1999, p. 23). Neither is this particular bathhouse alone in the region; the East Baths at Leptimius apparently had a kiln installed while still functioning as a traditional bathhouse (Stirling, 2001). The key idea to acknowledge here is that an ambitious local personage has probably financed the building of these bathhouses, local skills have been used in its construction and maintenance, local culture is represented through its decoration and even important local manufacture may have been located within; therefore a Roman concept – that of the bathhouse – becomes a focal point of cultural hybridity within the society it serves.

This is even more pronounced in some other instances from North Africa. For example, the Small Baths at Thenae in Africa Proconsularis (modern Tunisia) had a completely unique layout (fig. 53). Instead of a loose idea of sequential rooms, there is a cluster of geometric shaped rooms packed around a circular *frigidarium* (Yegül, 2010, p. 150). This would have meant that the experience of the individual would have been radically different from the usual bathing routine. The circular navigation of the rooms, aligned with their changing shape, and the steam from the baths, would surely have had a bewildering effect. This was not about an emulation of a Roman standard, but rather a unique journey carefully curated by a talented designer. While examples of baths from Roman Britain are

not as unorthodox, it is important to acknowledge that the idea of manipulating bathing experience and perception was something readily apparent in other provincial settings; thus, it may have manifested, in some form, within a British setting.

5.2.2 Medicinal Bathing

The medicinal element of bathing is something that has been transmitted through the classical sources, and similar sentiments have flourished in the modern world. In part this has been through the identification with the classical world promoted in recent centuries, but also in the popular idea of the 'natural cure'. Certainly the regenerative powers of thermal (or spa) settings are a constant with our own conception of a healthy lifestyle. The utilisation of natural thermal sources in the Mediterranean would have played a key role in the uptake of the Roman-style bathing tradition. The volcanic area of Campania was a particular heartland for these natural conditions. The Phlegraean Fields, to the north of Naples, are still active areas for heated spa springs (Nielsen, 1993, p. 21). Within this region, Cumae and Baiae were places where thermal water played a focal role in the creation of settlement. The latter is notable for its numerous bathhouses with medicinal function (Jackson, 1990, p. 5). Celsus (*Med*. 2.17.1) recommended the sulphurous sweat-baths "in the myrtle groves above Baiae"; Pliny (*HN*. 31.2) noted that nowhere were there waters that delivered more "variety of relief"; even Strabo mentions the hot springs being "suited... to the cure of disease" (*Strabo*. 5.4.5). This utilisation of such places has been mentioned previously and many settlements throughout the Western Empire were named after their thermal spring waters, not least the prime British example of Aquae Sulis (modern Bath). With this in mind, it is not unlikely that some of these bathing facilities were known primarily as places to frequent if one had an ailment or illness.

This tradition of thermal baths is held somewhat distinct from the common structures that we see in almost all Roman towns throughout the Western Empire. Yet, it is worth acknowledging that the 'artificial' heating, found in the vast majority of urban bathhouses, probably owes its origin to the imitation of natural thermal water sources, and may have offered similar properties beneficial to health. The literary tradition ascribes the invention of these water-heating systems to Sergius Orata, an oyster-grower on Lake Lucrinus in the Phlegraean Fields. He introduced a furnace to heat water, before leading it under his

artificial oyster-beds (Pliny. *HN*. 9.168). Recent analysis has cast doubt on the reliability of this story, despite it forming the consensus origin for Roman bathing into the twentieth century (Fagan, 1996; Fagan, 2001). The reality may well have been a gradual spread of Greek-style bathing, together with an affinity for such activity stemming from rural practice. Folk remedies concerning the relief of mild illnesses, by sweating close to a kitchen stove, could have been one potential source of the tradition (di Capua, 1940; Fabbricoti, 1976). This is obviously interesting as it implies medicinal influence in the history of artificially heated baths. In line with the general direction of thinking in this thesis, the modern idea of this water being 'artificial' did not necessarily preclude it from having powerful meaning.

Despite not being centred on thermal sites, many baths still enjoyed a reputation for the medicinal qualities of their water. For some physicians the cold baths were just as important as thermal ones in the treatment of various maladies. Even Augustus, suffering from abscesses of the liver, was advised by the physician Antonius Musa to try cold water therapy (Suet. *Aug* .81). The fame of Asclepiades of Bithynia is well observed in the classical sources and from a general historical perspective on the genesis of modern medicine. It is interesting to note that he was principally associated with the use of cold baths to heal illness (Fagan, 1999a, p. 98). In fact, the term *pensilia balnea* ("hanging baths") is often used in association with his methods. This has been interpreted as a reference to the preference for gravity fed establishments (Fagan, 1999a, p. 98), implying that there was significant healing value to a normal civic bathhouse (rather than hydrotherapy being purely centred on thermal springs).

The testimonies of Pliny (*HN*) and Celsus (*Med*) on the matter would appear to confirm this assumption. The work of Fagan (2006) documenting the references of these authors to medicinal bathing has captured its huge role in the treatment of illness during antiquity. The first thing that must be emphasised is that both authors are, predominantly, writing about the everyday bathhouses that we see all over the Empire; rather than the few exceptionally grand structures that so often come to dominate the discussion (Fagan, 2006, p. 192). Celsus alone makes eighty one references to bathing in his general account of medicine (Fagan, 2006, p. 205); the majority of these allude to the treatment of relatively severe afflictions, rather than the simple muscle strains which one might expect. Indeed, taken together, the two sources recommend bathing to alleviate symptoms of cholera,

rabies, the common cold, complaints of the male organs, diarrhoea, difficult childbirth, epilepsy, eye complaints, fertility problems, fevers, flatulence, gangrene, gout, headaches, itching, jaundice, leprosy, lice, abscesses, palsy, poison, psoriasis, urinary problems, wasting illness, and mouth ulcers. In addition, there was a more general sentiment that the baths could prevent illness and be part of an essential routine for individuals wishing to maintain good health. This is also reinforced by epigraphic evidence; an advertisement found at Lugdunum (Lyon), for instance, references the "healthy little baths" (*CIL* 13.1926). Similar expressions are found in many of the eastern provinces where the epigraphic record is greater.[57]

It is also worth mentioning that such bathhouses could have been a place where one would find a physician. In many ways, this assertion is more conjectural than factual; the actual evidence for doctors at the baths is mostly based on occulist stamps or medical tools found in provincial settings. As Fagan (1999a, p. 92) points out, it is an assumption based more on the suitability of the location and the lack of alternative evidence to show this sort of activity was taking place elsewhere. Added to this, the provision of a consistent source of running water would surely have been a requirement for certain medical procedures. As has been noted in the previous chapter, the bathhouses were often the primary beneficiary of the water supply in smaller settlements; thus it makes a degree of sense to centralise essential water requirements.

Regardless, the sheer breadth of these associations between bathhouses and health is telling. The sources mentioned above give the impression that the act of bathing (in an ordinary civic bathhouse) was seen as something of a cure-all. In fact, even an author like Pliny the Younger who was not focused on such matters makes reference to these attributes of the baths.[58] Indeed these beliefs would appear to have been widespread across society; the universality of illness would naturally have played a role in the dissemination of such information. Yet, the number of different associations with bathing suggests that there is probably a great degree of variability and local difference. This is probably what one would expect considering the similarly broad healing properties of the springs/water sources from which the bathing water was being procured. As a result, there seems room to

[57] Fagan (1999a, pp. 91-90) lists multiple instances of this epigraphic tradition of linking baths to health from different parts of the Empire.
[58] His letters include references to the sick man dreaming of baths and springs (*Ep*. 2.8.2 and 7. 26. 2). Also Pliny used the baths himself to solve an eye problem (7.21.2).

suggest that baths could have had significant associations with healing, but these associations did not necessarily come purely from central doctrines. In fact, the diversity seen in the list of Pliny and Celsus implies local variability that could have been partly attributed to water sources of the area or other spatial factors.

5.2.3 Bathing for Religion and Ritual

These healing properties of bathing would naturally find themselves entwined with ritual and religion in antiquity. In this regard, there is certainly no dearth of examples to reference if one is covering the aforementioned thermal baths. In Britain, for instance, the bath buildings of *Aquae Sulis* are overtly religious; the settlement grew up around a *temenos* and thus was always predominantly a religious centre rather than a normal town (Dark, 1984). There are similar examples throughout the Western Empire (see Derks, 1998; Yegül, 2010, pp. 50-51). While there is no need to refute the value of such places in the Roman world—after all they often exhibit vivid evidence of syncretist water veneration in association with bathing—one must wonder whether they have contributed to us unfairly judging other bathhouses that fall outside of these celebrated locales.

The 'everyday' bathhouses that occurred in all the significant Roman towns of the Western Empire are often presented as secular structures (e.g. Nielsen, 1993, p. 146). Nevertheless, within them, there was invariably religious imagery, usually in the form of sculpture. The likes of Asclepius and Hygieia were always popular, with their aforementioned role as healing deities (Nielsen, 1993, p. 146). Furthermore, these religious figures were not incidental decoration that could have been ignored; in the Baths of Caracalla gilded Colossi of Asclepius and Hygieia loomed above the bathers (Fagan, 1999a, p. 88). Neither were these associations limited to Rome; excavations at the Hadriannic baths at Leptis Magna have discovered at least six depictions of Asclepius (Fagan, 1999a, p. 89). Added to this, there were also a collection of more ambiguous deities like Neptune, Mercury, and Fortuna. Some may say that Neptune is far from ambiguous, but the universality of water means that he would have been relevant to people from all over the Empire; as such, his appearance could be representative of local beliefs despite his Roman presentation. Similarly, Mercury and Fortuna have an undefined value which means they were worshipped for many different reasons. The latter is sometimes

referred as to as *Balnearis*, the patron goddess of baths (*CIL*. 2.2701). This particular association probably derives from the medicinal uses for bathing that are mentioned above. In particular, Fortuna would seem to fit with the powerful idea of preventative measures in avoiding illness.

It is important to add that the respect paid to these deities was not just expressed by depictions within the bathhouses themselves; sometimes these structures were monumental oaths to healing gods made on the part of wealthy benefactors. The restoration of the Hadriannic baths at Leptis Magna was such a statement from Cornelius Attax Marcianus and L. Appius Amicus Rufinianus (*AE* 1925.105). So while the function could feasibly be interpreted as entirely secular, the motive is grounded in religious belief. Subsequently the construction of the bathhouse was perhaps almost akin to a votive deposit on a massive scale.

With this observation in mind, outside the thermal bathing centres, many religious sculptures within bathhouses have been interpreted as superficial decoration (e.g. Nielsen, 1993, p. 146). This is not necessarily surprising because, in contrast to somewhere like Bath, the common bathhouse may have had sculpture but possessed little in the way of overt religious material culture. Without curse tablets or closely associated temple precincts it is hard to make an archaeological judgement against the largely secular definition of these buildings. In this regard, it is important to acknowledge that an individual is probably more personally involved in the bathing process than would have been the case with many religious rites. In fact, the act of immersion inherent within bathing is probably more involved than any of the water worship that has been mentioned in this thesis. It would have represented a sustained corporeal experience, rather than the deposit of an item in a particular place. Indeed, the temporary deposit of one's body could have been a significant ritualistic statement in itself. In which case, it would be undetectable in the archaeological record, but entirely profound for the person involved at the time.

The powerful effect of submersion within water is displayed in the tradition of baptism. The original roots of that Christian rite could have been influenced, at some point, by the widespread bathing traditions of the Roman Empire. The octagonal baptistery form, for instance, seems to have been adopted from the *frigidarium* of the baths (Nielsen, 1993, p. 145). Certainly during Late Antiquity the bathing tradition was still endorsed by the

Church fathers, even if they disapproved of certain elements of the process (Nielsen, 1993, p. 111). Also a great many bathhouses were later transformed into Churches, incorporating the water supply into the religious processes of the new building. It has been noted in the previous chapter how monastic water supply is a rather intriguing area of study. These constructions often utilised earlier urban water supply systems, the same ones that would have fed the Roman baths, but they are more readily conferred a pronounced religious meaning. It seems likely that they appropriated previous associations, as much as creating new mythos surrounding water.

The changing nature of the water, in parallel with the movement of an individual, through the baths holds significance. It would have created a sense of liminality; similar to other watery circumstances that have been highlighted throughout this thesis as places of veneration. This is maybe an element of the bathing process that is affected by our over-familiar approach to the experience. Frequenting the baths may have been a regular activity for many people, but it was also an undeniably transformative experience. On every level these structures dealt with a changing of states. The various rooms represented different elemental expressions of water; the *calidarium* a heated thermal vault, the *frigidarium* a frigid and arresting shock. Steam would have been created in the hot rooms of the baths, along with condensation on the walls. In the colder areas, perhaps in winter, one would have seen the vapour from hot bodies rising to the ceiling, occasionally the icy conditions could have filtered into the internal pools themselves. Indeed, the baths would have provided a microcosm of the many states of water in nature, with the end result being drained away into a nearby river. If the aqueducts supplying these buildings can be seen as rivers, the baths themselves displayed water in its other elemental changeable forms. There is ethereal majesty to the process that cannot be undervalued because it fundamentally links to myth and tradition. Yegül (2010, p. 80) refers to the frequent occurrence of references to Vulcan and Neptune, evoked in the ancient literature, as poetic metaphors to describe fire and water. Their elemental contrast is inherent within the processes of the bath and thus places the practicalities of maintenance into a mythic framework.

The senses of the individual would have been challenged continuously with the changing conditions. The steam of the hot rooms could have obscured and manipulated identity, possibly allowing activities of a clandestine nature to take place. The sounds of a busy bathhouse would have been similarly deceptive. Issues of self identity were also

potentially dealt with; the reflection of one's image in the waters could have been a reminder of perceived health (or ill health). The disrobing process could also have unveiled issues of self image. Laurence (2009, p. 69) refers to the importance of physiognomistic observations in the determination of character in the Roman world. The power of an individual could be projected by careful observation of cultural affectation in the bathing process and thus may have had a marked effect on perception of that person within a community. This must also engender a strong sense of local preference and style, again raising the question of provincial settings.

Transformation is something that seems to have been important within Roman thought (Ferris, 2007, p. 121). Famous works such as Ovid's *Metamorphosis* are clear examples of the role it played in the larger mythic belief system.[59] Indeed, deities within the classical tradition are constantly changing form to suit their own needs. As we have seen, the rivers of Italy were also shown to be changeable, sometimes flowing through the land and at other times taking the form of figures that could interact with humans. The possible importance afforded to calcareous tufa, versed in the previous chapter (section: 4.4.2), is another example of this emphasis on transformation. In this regard, it is worth dwelling on how different sources of water would have reacted to the various processes of the bathhouses. Heat can, on occasions, bring out certain properties within water, which in turn could have had an effect on the perception of the bathhouse.

5.3 Summary: The Hybrid Bathing Experience

The normal civic bathhouse, that we see constructed throughout the Western Empire and beyond, was a hugely adaptable structure. It straddles the broad definitions of social, political, economic, and religious activity, making it the great hybrid of the Roman town. Moreover, within each of these diverse realms of activity lies a great deal of room for local expression. The rationale behind fusing these broad activities into some defined form that materialises in the provinces, as a direct manifestation of a Roman identity, is distinctly flawed. The malleability of these structures is inherent within Italy (and other southern provinces) and is probably a primary reason for their success there. With this in mind, the

[59] In *Metamorphosis* there are numerous examples of transformations involving water. Sometimes this happens when an individual inadvertently offends a river deity – such as when Acteon is changed into a Stag by the water of Diana (3.288).

creation of bathhouses within the northern provinces need not have been driven by the spread of a monolithic identity package, but possibly because it appealed to people as a structure that distilled some of their local practices into an agreeable central location.

5.4 Baths of Britannia – The Iron Age Background

In previous chapters it has been emphasised how, during prehistory, the people of Britain were frequenting low-land watery landscapes of valleys for many different purposes. Some of this activity may have been linked to a form of bathing. Ambiguous Bronze Age 'burnt mound' features, for example, have been interpreted as a simple form of sauna; they have been equated to Native American sweat lodges (Hodder & Barfield, 1987, p. 374). While often portrayed, alternatively, as evidence for some form of cooking, their proximity to water and lack of faunal remains is more suggestive of other activity (Hodder & Barfield, 1987, p. 371). If these features were some form of early sauna, they create a type of precedent that potentially changes the perspective we have towards any incoming Roman bathing tradition. Furthermore, in anthropological studies, such small sweat lodges have been shown to be places where various rituals would have been performed (Bruchac, 1993). The isolated context of the 'burnt mounds', away from large settlement, perhaps hints at similar rites taking place. While there appears to be less evidence for Iron Age parallels (albeit there are a few instances), it is possible that potential features have been misinterpreted, or poorly documented, by archaeologists concentrating on the sometimes more vivid evidence of the later period. Certainly we should not discount the possibility that such activity was still taking place in the Iron Age; the 'Celtic' cultures of northern Iberia are known to have utilised "Pedras Formosas" (large, decorated stone slabs involved in heat production) in possible sauna structures (e.g. Oubiña & Fernández, 2004, p. 45).

In a more general sense, the late Iron Age population shift towards river valleys is characterised by the creation of complex settlements traditionally labelled '*oppida*' (Hill, 1995b, p. 70), many of which lay in valley bottoms or on valley sides. There has been a lot written on the subject, with contributions aiming to clarify some sort of typology within a framework of 'urban' development (Darvill, 1987; Woolf, 1992; Haselgrove, 2000; Bryant, 2007; Cunliffe, 2009). These settlements are sometimes lacking built focal points but, as mentioned earlier in this thesis, they are often unified by their proximity to water.

The various activities, whether they were social, economic or ritual, were executed with water nearby.

Neither is water necessarily something that has just positive associations; the darker side of Iron Age society would have found a home in these areas. This is less well attested by physical traces but often deduced in the modern analyses. The power of water to hide things, manipulate them, and dispose of them, is an important consideration when assessing its use in the past. The link between rivers (and the sea) with death is something that has been tentatively explored by different writers recently (Willis, 2007a; Kamash, 2008). The aforementioned deposits of skulls within the Walbrook and Thames are also a reflection of possibly unsavoury activity that came about through interaction with water (Bradley & Gordon, 1988). The 'bog bodies', found within marshy locales throughout Northern Europe, even have evidence for ritual sacrifice (Stead, et al., 1986; Aldhouse-Green, 2001; Sanders, 2009). However, the potential of water as a meeting point in the landscape also means that these would have been arenas of disposition. We often credit the Mediterranean, with its advanced urban constructs, as an impure place full of deceit and schemes. This is particularly prominent in the Roman tradition, with famous betrayals like that of Julius Caesar being popularised throughout the ages. Such activity almost inevitably happened in Iron Age Britain, where increasing wealth and power would have disadvantaged people in new ways. These locations by the water could have been places where clandestine activity took place; the flow of the water audibly and figuratively washing away any evidence and, the possibility of, 'blame'.

As we have seen, many of these '*oppida*' settlements later became Roman towns and thus we start to place their Iron Age functions into formulaic Roman building types (like the *forum* or *macellum*). In line with this, the bathhouse is often portrayed as something new and culturally distinct. In fact, its association with water and its many functions could have made it rather familiar to local inhabitants. If this familiarity was a catalyst for bathhouse construction then the experience of the structure, in the past, becomes a far more nuanced phenomenon. That is not to say that the particular rooms and bathing techniques were not evidence of new things that were introduced in the Roman period. Nevertheless, these incoming features could well have been part of a larger accommodating framework for the concept of the bathhouse, based on a more local rationale.

5.5 Evidence from towns of Roman Britain: Case Studies

Taking the above into consideration, an examination of Romano-British bathhouses and their place within towns can aid in a reinterpretation of their significance. In some ways, the cumulative argument of this thesis already contributes a great deal towards this aim. Indeed, the acknowledgement of significance in the local waterscape of Roman towns (encompassing the 'natural' elements of rivers/springs and the 'man-made' features of conduits/wells/cisterns) suggests bathhouses would have been particularly powerful buildings. However, in addition to this, elements of their location, layout, longevity, and archaeological evidence of purpose, could all be key contributory factors enabling us to understand how they were conceived within the respective towns.

5.5.1 London (*Londinium*)

The previous chapters of this thesis have shown that London was at the heart of one of the most complex urban waterscapes of the Roman era. Therefore, it is of little surprise that we have records of many different bath structures from the Roman settlement. There is evidence for at least twelve separate locations within London that have been interpreted as public or private bathing facilities. Among these, four locations seem to have been significant during the early phases of the town; Huggin Hill, Cheapside, Lime Street, and Cannon Street (fig. 54) (Rowsome, 1999, p. 273). The last of these is of immediate interest in the context of this chapter; the Cannon Street complex has already been discussed as an ambiguous monumental structure at the mouth of the Walbrook (see section: 2.6.1). The importance of this location in the comprehension of the wider waterscape is thus a prominent consideration. This structure was traditionally interpreted as the 'Governors Palace' (Marsden, 1975), but increasing understanding of the area has precluded this as a possibility; the nature of the reveted Walbrook meant an assumed western wing was unlikely. Regardless, the central part of the complex included a large hall and an ornamental pool, both of which occupied a podium over 100 metres square (Rowsome, 1999, p. 274). While this does not exactly provide profound evidence for a public bathhouse in the traditional sense (there are no rooms that have been specifically designated as *caldarium*, *tepidarium* etc), the pool is obviously most fitting in such a structure. Moreover, there have been discoveries nearby (to the east and west) of

substantial stone buildings with hypocausts. The evidence recovered at 3-7 Dowgate (just north-east of the mouth of the Walbrook) is particularly reminiscent of a small bathhouse (Rowsome, 1999, p. 274). What this seems to imply is that this area, of great importance in the wider waterscape, also had a series of buildings with water as their focal point. In the case of the Cannon Street complex, this was a monumental construction dedicated to water, at a place where the prehistoric meaning of water was evidently particularly acute.

The Huggin Hill Bathhouse was another major presence on the river front of the Thames. This building represents a more typical public bathhouse format and was probably one of the first prominent monumental buildings of the town. It was built on a series of terraces painstakingly cut into a steep hillside close to the Thames. At this point the geology was particularly vibrant, with an active spring line existing at the interface of the gravel and impervious clay (Rowsome, 1999, p. 263). This meant that the bathhouse had a constant supply of water that was probably incorporated into the structure with cisterns and piping (Rowsome, 1999, p. 264), as seen elsewhere in the Empire. However, it also means that the building was situated at a transient point in the landscape; the efforts required to build in this location imply that the effect was worth the initial toil. The building was truly monumental in scale and would have dominated the riverfront between the Walbrook and the Fleet. At high water the Thames would have reached the back of the structure; where the discovery of massive foundations could have been evidence of a large landing stage. This presents us with the possibility of entrance from the river itself (Rowsome, 1999, p. 264); therefore, for some individuals, potentially a point of arrival at the early town. Bearing in mind the discussion in previous chapters about vantage points from bridges, the access to the Thames vista from the baths could be an important feature.

The lifespan of this bathhouse is somewhat hard to discern. Established in the first century, Huggin Hill could have been out of use as a primary bathhouse by the mid-second century or before. This is often seen as an index of the decline of the early vibrance of London, and suggestive of a decline in population from the later second century. Yet there were noteworthy additions to the structure throughout its lifespan. This has been discussed as evidence for a strong public demand for the services of the bathhouse, and subsequent need for its expansion. The addition of a new *caldarium*, in the Flavian era, represented the most substantial of the works; the need for realignment of heating and drainage would have been particularly demanding. Despite the investment throughout the first century, by the

Hadrianic era at least part of the structure was being used for other activities. In some of the minor rooms internal buildings had been constructed, with evidence of iron working (Rowsome, 1999, p. 270). Nevertheless, the main vaulted sections of the structure could well have been functioning throughout the period. Indeed, Rogers (2008, p. 141) notes how some of the walls of the structure remained extant into the medieval era of London. Indeed, ninth century records indicate a masonry wall called the Hwaetmundes stan in the area of the bathhouse (Dyson, 1978, p. 209). Subsequently, it is hard to envision this change as evidence for a rapid decline. It is possible that the other contemporary bathhouses were seen as better sites for future expansion. Maybe the concentration of such structures around the mouth to the Walbrook was nearby competition.

The other problematic issue about assessing decline, in this case, is the extent to which activity in the bathhouse was truly centred on traditional Roman practice. Perhaps the re-arrangement of rooms in the late first century represents some of the multifaceted purposes of the bathhouse itself. While the moves seem rather illogical for executing the traditional bathing routine, they could have facilitated greater meeting and discussion areas for business and the like. The later internal structures that were created in the second century could have been an extension of this activity, which continued alongside the vaulted bathing areas. Yet, what is clear is that the Huggin Hill baths were hugely popular after their initial creation, their changing role perhaps hints at this popularity stemming from more than merely an appetite for the sophisticated bathing practices of the Mediterranean.

Another first century bathhouse was located at Cheapside, close to the Cripplegate fort and later amphitheatre (Perring, 1991, p. 73). This structure has already been touched upon in the discussion of the monumental wells at Gresham Street (section: 3.5.4), which could have served as a viable water source. The baths seemed to have been in use up to the early third century (Rowsome, 1999, p. 274). While it has often been said that the proximity to London's fort would have meant a predominantly military clientele, it is worth reaffirming the importance of the surrounding area. In the excavations relating to the Gresham well, a bronze arm from a large statue was discovered (Bayley, et al., 2009). At the time this was interpreted as potentially a bronze of Nero, or another early Emperor, that could have stood in front of a nearby temple (Rowsome, et al., 2011). This location on one of the main co-axial roads of London befits such monumental structures and therefore might suggest a more opulent public *balnea*.

This road has been discussed previously (see section 2.6.1) as an important thoroughfare across both the Fleet and the Walbrook, into the central *forum* area of the town. Concordantly, the placement of the bathhouse may have had a notable impact both ideologically and socially. It was obviously situated in an area of water resonance, on a road intertwined with such associations. However, more than this, the proximity of the fort could have meant an even greater mixing of social backgrounds. The seemingly 'organic', rather than planned, road network to the west of the Walbrook is sometimes seen as evidence of a suburb with a more 'native' population. The potential of these individuals mixing with the military presence could have resulted in a dynamic area for business and cultural exchange. The same sort of sentiments could be expressed over the evidence of a bathhouse in Lime Street, immediately east of the *forum* and *basilica* (Marsden, 1975, pp. 129-33).

The remains of a building found in Pudding Lane have been interpreted as representing a second century bathhouse (Perring, 1991, p. 73). Its location is again below the spring-line, close to the Thames foreshore. It also happens to be at the bridgehead of the primary (Roman) Thames bridge. Once more, this represents a space for social mixing on an important thoroughfare to the *forum*. Yet, it is also a key focal point for water close to a bridge that has already been discussed in ritual terms. While the practical attributes of a bathhouse in this location are clear, it is worth considering whether we can detach water veneration on the bridge from a nearby building so intimately related to the same medium. The same may be true for the bathing facilities at the Winchester Palace site in Southwark (Yule, 2005). Their location, on the northern island, overlooking the main flow of the Thames, and possibly in view of the Huggin Hill baths, may have played an important role in the experience of the building in the Roman period.

Another small bathhouse has been interpreted at the 1 Poultry site, in the City of London (Hill & Rowsome, 2011, p. 370). There is some debate as to whether this was a private residence or small commercial bath building. As a structure, its use endured well into the fourth century, implying a degree of success (Rowsome, 1999, p. 275). The arguments against the bathhouse interpretation essentially concentrate on the lack of an easily detectable room sequence in alignment with classic bathing practice (Hill & Rowsome, 2011, p. 371). Of course, as mentioned in this thesis, it is debatable whether compliance to such orthodoxy is a fair assessment of a bathing facility. Of course, if this

building was a bathhouse it would have been another prominent water feature in this area close to the Walbrook, in addition to the bridge and the dedicated well zone mentioned previously. The same aspects that have been mentioned for Pudding Lane could be applied here, in terms of the potential ritual activity attributed to the nearby Walbrook.[60] If this water harboured meaning from any Iron Age (or earlier) associations, the combination of these features may require further scrutiny. At the very least, the emerging affinity for these structures could be a legacy of the similar social aspect of water in preceding eras.

In this regard it is worth noting that some of the small, potentially votive, offerings found in the Walbrook were directly related to bathing. Wardle (2008, p. 209) has noted that there are at least twelve iron strigils on sites in and around the Walbrook, raising the question of whether they could have been part of ritual behaviour. These implements were all in fully working order and are conspicuous because they represent almost the complete collection of such items found in London (Wardle, 2008, p. 202). The only other strigil in the British Museum's permanent collection was found in a waterlogged deposit from Southwark. While the conducive conditions of the Walbrook valley for preservation temper interpretation somewhat, we cannot dismiss their potential as evidence for ritualistic behaviour taking place in the area. The other interesting element of the strigils is that they are usually made out of copper alloy (Manning, 1985). Iron deposition obviously has a strong tradition in temperate Europe and thus this selection of material could have been a deliberate decision, which may also link back to secondary metal-working activity within bathhouses like Huggin Hill.

5.5.2 St. Albans (*Verulamium*)

There is evidence of at least three bathhouses at the site of Verulamium. None of these structures would seem to have been as monumental as the *thermae* types found at Wroxeter and Leicester, but they nonetheless warrant serious investigation, if only for the fact that the water veneration in the town has been clearly underlined in previous chapters. By far the most significant structure of these three, in terms of this thesis, would be the Branch

[60] Interestingly the buildings at 1 Poultry and Pudding Lane are similar structurally (Hill & Rowsome, 2011, p. 372). It is possible then that their shared circumstances, next to prominent river crossings, could have had an effect on their form and function.

Road bathhouse (see fig. 55 for layout). This lies on the road approaching the town from the direction of the Folly Lane ritual complex. This being so, it is not a central feature within the main town plan (see fig. 17 for location). Indeed, an interpretation as a bathhouse suitable for incoming travellers may be postulated. However the positioning of the bathhouse, in the much discussed zone between Folly Lane and the main town, is surely not coincidental. This route possessed so many different water features linked to ritual, that the bathhouse would be conspicuous if it had no special meaning. The Folly Lane complex itself, the votive deposition in the Ver, and the unusual deposits in the hillside shafts, all build up a picture of a meaning-laden waterscape being pivotal to the experience of Verulamium. These baths may have been central to this configuration, rather than being an ancillary element.

Pottery from the baths dates its construction to c. AD 140, meaning it was being built at a similar time to the refurbishment of the complex at Folly Lane (Lyne, 1999, pp. 290-291). It also faced the ceremonial site, like some of the other structures in the town. Its dimensions were at least 55 metres x 33 metres, but the limits of the excavation mean that a significant portion of the building remains undocumented. Indeed, Niblett (2005, p. 84) notes that the north-east and north-west sides of the building could have even stretched towards the Verulam Road; quarrying in the nineteenth century undoubtedly would have affected much of the nearby evidence. The site seems to have been in use until the second quarter of the third century, when water-borne silts were accumulating in the hypocausts (Niblett, 2005, p. 85). Of course, bearing in mind the associations with water in the immediate locality, it is hard to assess whether such discoveries realistically meant the building was going out of use. Indeed, while the drainage and heating would have been important for traditional Roman bathing, that template does not necessarily mean much in this example. While the baths possessed rooms that could be identified as *frigidarium*, *tepidarium* and *caldarium*, there is little evidence of it being frequented in the regular fashion that would befit a roadside bathhouse. This lends weight to the interpretation that the structure was part of seasonal festivals and rites emanating from the Folly Lane focal point (Niblett, 2005, p. 84). In turn, one has to wonder whether the progressive flooding of the structure could have been ceremonial, or an open acknowledgement of the power water held in the immediate surroundings. Furthermore, within a changed state, it could still have

been utilised for many different activities, at the very least it could have been a focal point before crossing the Ver into the town.

The other two areas where possible baths have been identified are more central. The first of these was found in Insula XIX in excavations undertaken by Saunders (1974; 1975). The earliest features on the site were a number of pits and fragments of pre-Roman coin moulds. The actual evidence of the baths in this location is fragmentary but would seem to relate to some sort of water feature. The remains consisted of a substantial mortared flint building, resting on chalk, flint and tufa footings. Two parallel walls were also excavated; one possessing internal buttresses and an elaborate painted design (Niblett, 2005, p. 85). Within the building, flue tiles were recovered and a sunken mortar-lined area was interpreted as a pool feature (fig. 56). All of this suggests either a bathhouse or a structure, of some stature, that possessed a central watery focus.

In support of this interpretation is the other activity that has been associated with Insula XIX. This area of the town fronted onto the river Ver; it was also the closest to the 'Timber Tower' and prehistoric crossing point. Moreover, within the insula a simple looking bronze river deity was recovered (Niblett, 2001, p. 87). The flue tiles mentioned above were of a pre-Flavian type, meaning that the structure could have been of a relatively early date. Some have postulated that evidence of burnt timber could mean that the building was established prior to the Boudican revolt of c. AD 60-61 (Niblett, 2001, p. 65). However, even if this were the case, the event did not seem to affect the use of the structure, which remained until at least the end of the first century (Niblett, 2005, p. 65). As such, it seems even more likely to be involved with the early activity surrounding the Ver.

Indeed, the location within this insula means it is hard to separate such a building from the enduring value of water nearby. Therefore, as was the case with the Branch Road site, this could be evidence of a very typical looking bathhouse, complete with classical imagery, which was being experienced in line with local practices. This configuration reveals that both the insulae closest to the Ver (Insula XIX and XVII) have clear evidence for water features. They remain the intermediary between the *forum* space and the river, but also the further processional route to Folly Lane. The bathhouse in Insula XIX completes a unified picture of the deep relationship between Verulamium and water. The Roman town elaborates and heightens what was already a venerated river, by directing the flow into its central areas.

The final potential site for a bathhouse lies within Insula III, an area that has also had relatively little in the way of archaeological investigation. The building was located in a single trial trench cut across the line of Watling Street in 1998 (Niblett, 2005, p. 85). Within this, the footings for a substantial masonry building, containing at least one hypocaust, were found. Furthermore, these were contemporary with a series of large masonry drains leading north (Niblett, 2005, p. 85). The substantial nature of both these discoveries means the building was unlikely to have been a private residence. On the contrary, it is probable that this was the location of the primary public bathhouse of the town from the late first or early second century (Niblett, 2005, p. 86). In addition, these baths could have been in use to the end of the third century, before the building was either re-built or fell out of use.

The positioning of these baths is clearly not as intimately related to the river Ver as the above examples. However, the first aspect to note is the proximity this building would have had to the private residence containing the famous Neptune mosaic and well (mentioned in section: 3.5.2). The unusual deposits in the well, combined with the mosaic, suggest that the groundwater of the area was due respect. In fact, the private residences of Insula IV have been interpreted as also having private bathhouses of some significance. This would mean that this area of the town was synonymous with these types of buildings, and the public baths may have been the central feature of a water focused district. In lieu of further excavation, there is not much more that can be gleaned from this example. Despite this, it is worth noting how Insula III lies at the end of the unusual diagonal course of Watling Street, after it enters the town. Along the course of this road is the triangular temple which is thought to have been a place of worship before the Roman period; a concentration of eighteen pre-Roman and early Roman brooches were discovered under the southern end of the temple (Wheeler & Wheeler, 1936, pp. 113-120). Taking this into account, perhaps the route from this site towards the central areas of the Roman town (and the prehistoric activity on the Ver) is part of the reason for the diagonal construction of Watling Street. As such, the termination point at Insula III could have meaning in terms of a processional route, in a similar way to the interpretation of Folly Lane. Within this framework, the establishment of a monumental bathhouse at this point could have underlined long-lived ritual movement through the landscape, rather than simply the increased Romanised values of the town's inhabitants.

5.5.3 Leicester (*Ratae Corieltauvorum*)

The 'Jewry Wall' in Leicester is the last remnant of the bathhouse that once stood in the centre of the Roman town. The creation of these baths was part of second century building projects that included the nearby *forum*. As mentioned previously, this monumental centre was situated close to the crossing point of the Stour and at the site of previous Iron Age activity in the St. Nicholas circle area (fig. 12) (Cooper & Buckley, 2003, p. 32). It bears a certain similarity to Canterbury, in that these central public buildings clustered right next to the river and overlay important foci from the Iron Age. The layout of the building was quite unusual for a bathhouse within the province, in that it did not have a sequential series of rooms providing increasing heat (Wacher, 1995, p. 349). Instead, the *caldaria*, *tepidaria* (three of each) and *frigidarium* (single) were created in a symmetrical lateral spread of three *caldaria* and *tepidaria* next to each other (fig. 57) (Burgers, 2001, p. 75). It seems as though the main concourse of the building served as the *frigidarium* and thus probably had basins of cold water throughout (Wacher, 1995, p. 349). This layout makes it hard to convincingly talk about the way someone would have experienced the building and the sort of activities that were taking place. The symmetrical layout could have provided room for separation of social class or indeed particular social and business activities. As a result, one has to consider the ideas expressed above that local custom could have had a greater than anticipated impact on the conception of the building.

In line with this, we must return to the other activity in the insula referring back to the suspected *mithraeum* and well (Pollard, 1998). The possible links between water and *Mithraism* have been noted already (see sections: 2.6.1 and 2.6.4), and the combination of a nearby river, a well, and a sculpture of a river deity associated with a frieze or pediment ornamented with sea-serpents (Wacher, 1995, p. 359), seems to give us a scenic unity in meaning. It is thus within this immediate context that we should judge the Jewry Wall baths of Leicester. If the local concerns of the bathhouse are to be considered, the potentially special nature of the water being utilised could have played a prominent role in how people conceived the structure. In this regard, the drains of the baths could be particularly relevant. Wacher (1995, p. 349) makes reference to the fact that the examples found in association with the Jewry Wall baths were extremely large when traced to the south and south-west direction (two channels). In fact, they are so massive in size that there was sufficient headroom for a man to walk down them (Wacher, 1995, p. 349). These

features are often used to support the assumption that the town had a significant water supply (see section: 4.8.5). However, the direction of the drains to the south-west and south would also tie this bathhouse into the area of the *mithraeum* and, possibly, the crossing point of the Soar. The grand nature of the structures infers a large amount of water flowing into (or out of?) these areas. This furthers the interpretation of the development of Leicester being linked to the movement of water through its central district, which would have been a fitting urban arrangement for the *civitas* capital of an Iron Age tribe known for their links to rivers (e.g. Breeze, 2002).

The potential for such heightened significance for these baths is supported somewhat by their role in Late Antiquity (and beyond). Even today a church (St. Nicholas) stands next to the 'Jewry Wall' remains, and it would appear that the bathhouse was incorporated into a Christian area of worship before this Anglo-Saxon building was constructed (Kenyon, 1948, p. 34). This relationship could constitute simple, practical, re-use of a similarly monumental building. That notwithstanding, there is evidence for use of the bathhouse into the fourth century (Kenyon, 1948, p. 7), so perhaps a changing role of the structure is a more viable conclusion.

5.5.4 Silchester (*Calleva Atrebatum*)

The baths at Silchester were probably one of the earlier examples in the province, with some similarities to both Huggin Hill and the Jewry Wall buildings (Burgers, 2001). As with Leicester, the plan of the building is a complex construction, although it possibly started out as a simple row-type bathhouse (fig. 58). There is some mark of local social change in the improvements that were made to the layout. During the second century a new *calidarium* was constructed that hints at the possibility of both men and women bathing at the same time; or that the baths began to attract a much larger clientele (Boon, 1974, p. 130). Yet, as with Leicester, the most intriguing element of the bathhouse is the build-up of other elements of water significance within its immediate location (fig. 32). Again, there is a suspected *mithraeum* and also a well with votive items (Boon, 1974, p. 156). Added to this, the bathhouse was supplied by a small stream that entered the town through the defences. While not much has been made of this watercourse, it would presumably have been a feature of the previous Iron Age *oppidum* and thus would have had local

associations. Indeed, the lack of a prominent river running through—or by—the town lends credence to the notion of its enduring importance.

The other notable bathing facility of the town is located within the supposed *mansio* (Insula VIII). Wacher suggested that while this large construction could have been part of a personal estate, it was more likely intended to cater for the needs of the high volume of travellers passing through this prosperous trading town (Wacher, 1995, p. 278). While the provision of a *mansio* with bathing facilities is not unusual, the size of these facilities is rather at odds with other British evidence. The similarly early date for these baths suggests that they were running at the same time as the public baths. As such, maybe the public baths had a more local feel, while the *mansio* baths accommodated the traders and the transient population.

The on-going excavations at Silchester have revealed that the late Iron Age occupation on the site seemed to influence many of the early monumental buildings of the Roman era (Creighton, 2006, p. 65). One of the most marked examples of this is the primary bathhouse (Fox, 1948), which would later be altered to fit in with the slightly different alignment of the Roman street grid. This is an intriguing point because it frames the creation of the bathhouse within the pre-Roman layout and conception of space. Creighton (2006, p. 141) has made the important observation that the structure is on the same alignment as the nearby temple complex, and both would have been outside the Iron Age earth works that defined the settlement area (fig. 31). Unfortunately, our knowledge of this area has been hindered by the presence of modern buildings. Yet, there is potential that the *temenos* and bathhouse structures could represent a similar set of circumstances to those observed at Verulamium and Folly Lane (Creighton, 2006, p. 141). While Creighton emphasises the impact of a similar external temple in proximity at Silchester, there is also the added parallel of water being a conspicuous presence. The poor understanding of the *temenos* enclosure may also disguise further interactions with ground water, similar to those found near the extra-mural theatre of the town (see section: 4.8.12). Certainly there are at least two Romano-Celtic style temples within the enclosure that are clearly of an early date. As such, the influence of local custom on their function must have been strong. Linking the bathhouse to this area means, despite its 'Roman' appearance, a true understanding of how it was experienced may only be realised by acknowledging the impact of prehistoric activity nearby.

5.5.5 Canterbury (*Durovernum*)

The main bathhouse discovered at Canterbury has been briefly mentioned previously (see section: 4.8.10). It was constructed at the start of the second century opposite the *forum* and close to the temple precinct and theatre (Blockley, et al., 1995, p. 84). In terms of scale, it probably compared favourably to the more celebrated examples of the Huggin Hill and Jewry Wall baths; the interpretation of the layout seemingly falling somewhere between the two. The one unusual feature of the structure is the open *piscina* area which is within a central courtyard. This has very few comparisons within northern Europe, for the obvious reason of inclement weather. Little has been written about the reasoning for such an addition, indeed most imply that it was simply not thought through. Undoubtedly this is usually because such features are characterised by a brief period of use, before being replaced by a more suitable room.[61] While the Canterbury *piscina* is eventually a victim of refurbishment, this is only after it existed for possibly two hundred years (Blockley, et al., 1995, p. 96). This longevity makes it hard to see the feature as some sort of miscalculation; but, equally, it seems unlikely that it would have been worth the cost of upkeep if it only served as a swimming pool (frequented rarely in the summer months). Bearing in mind the possibility of this water coming from special springs to the north-east of the town and the links the nearby temple precinct had to water, this pool could have been integral to other, more ephemeral, activities.

Water would have drained from the *piscina* out of its south-west corner, before being channelled north-west (Blockley, et al., 1995, p. 92). This is obviously in the direction of the Stour, meaning the water would likely have passed through the *forum*/temple district of the town; something that is not without a symbolic resonance. In line with this, Creighton (2006, p. 146) has made reference to the fact that, as with Silchester and St. Albans, Canterbury has a significant temple enclosure with prehistoric roots that could have had an impact on the layout of buildings within the town. His account shows that Canterbury is different from these other two settlements in that the temple enclosure is in the centre of the town; although the presence of barrows on the outskirts of town are perhaps a local example of prehistoric ritual focus away from the central areas (Creighton, 2006, p. 146).

[61] A good example of this quick abandonment is the similar feature found at Gadebridge Park villa (Neal, 1974, pp. 68-69).

However, while the primary temple enclosure may be central at Canterbury there is still a clear proximity to a watercourse and a bathhouse, as noted at Silchester and St. Albans. The link to these neighbouring features would have been heightened by the lack of surrounding walls around the bath *piscina* itself. It was seemingly open to the elements and, at least in the early periods, may have only been joined to the bathing complex through its north-western corner (Blockley, et al., 1995, p. 90). It is possible that this gave the *piscina* greater visibility in the area, rather than being surrounded by the high walls of the bathhouse.

It must also be emphasised that there was later evidence for metalworking in both the *piscina* and *laconicum* areas*;* this echoes the examples at London and Wroxeter. As mentioned before, it is possible that such activity could have represented more than opportunism. The later history of the bathhouse is somewhat hard to decipher, but it was apparently still standing well into the fifth century. Another element to consider is that eventually St. Margaret's Church is built directly over the *piscina* area of the bathhouse. The church was constructed in the twelfth century but, as with many such buildings, it could have been a product of activities taking place in the area previously.

Canterbury is also unusual in that it has a number of smaller bath suites that are assumed to be private establishments. There is evidence for such features at St. George's street (Wright, 1948, p. 96), St. Ragimund Street (Frere, 1947), Butchery Lane (Williams & Frere, 1949), the Marlowe Theatre car park (Wright, 1958, p. 149), and St. Mildred's Tannery (Pratt, 2009). Of these, the St. George's street example was rather large, with up to nine rooms incorporated as part of the complex. It was probably constructed during the second century and, as with the public baths at St Margaret's Street, continued well into Late Antiquity. The structure certainly had a significant overhaul during the fourth century, with the addition of a new cold bath, remodelling of the hypocaust system and a new entrance (Wright, 1948, p. 97). Of course, just because it is joined to what we assume to have been a private house does not mean this was off limits for people of the town. Indeed, the proliferation of smaller baths could be evidence of how in Canterbury it was particularly relevant to associate with these water focused structures. The number of bathhouses in the town is certainly high when compared with other sites that have had far more excavations, such as Silchester (Hanson, 1971, p. 96). In the past, people have been tempted to explain this sort of difference in the extent to which the town was Romanised;

the location of Canterbury within the south-east has traditionally helped to underline this argument of increased similarity to the rest of the Empire. Yet, the settlement location was crystallised during the Iron Age and is deeply invested in the local waterscape, as has been discussed earlier. It seems equally possible that the compulsion to build bathhouses could have stemmed from local meaning found in the manipulation and presentation of water.

5.5.6 Wroxeter (*Viroconium*)

There was certainly a legionary bathhouse at the site of Viroconium, but this was dismantled in the creation of a *forum* space in the mid-second century (Webster, 1988a, p. 140). The main public bath building, which contained the still extant 'Old Work', was built in the middle of the second century during the reign of Hadrian (fig. 59) (White, 1999, p. 279). Work commenced *c*. A.D 120 and was completed some thirty years later. It would likely have been one of the largest baths within the province (Burgers, 2001, p. 69). In fact, there is a possibility that Hadrian himself could have had a financial part to play in the development, due to his known interest in provincial building projects (Duncan-Jones, 1990, p. 66; Webster, 1990, p. 2). However, it is more likely that the Wroxeter baths were funded by cumulative donations from the civic authorities (Millett, 1990, p. 289). As stated earlier, the line one draws between these central urban authorities and private benefactors is perhaps rather blurred. It would appear certain that prominent individuals from the community would have been linked to the construction. In addition to this, the extended building time of the project also suggests a sense of the baths becoming a communal endeavour, rather than a hastily erected monolith to incoming people. That drawn-out process is reminiscent of the creation of some major prehistoric monuments and could have had an effect on the perception of the building once complete. One might argue that the Wroxeter baths were a product of foreign expertise, but it is unrealistic to exclude the native population completely. Therefore it is possible that a sense of ownership and communal identity could have been forged in the building work. Another possibility afforded by an extended construction time is the possibility that the bathhouse was in partial use before completion. A modern architectural example like the Sagrada Família (in Barcelona) shows the potential of such an interpretation, even if supporting evidence is

hard to discern in the case of Wroxeter. Both these observations could have changed the way people perceived the baths and the role they played in the community as a whole.

There was clearly a local appetite for this building, which contributes to it remaining the central feature of the town into the fourth century (Rogers, 2008, p. 141). Indeed, as referred to in the previous chapter, the bath insula (which included the *macellum*) outlasts the *forum* as an effective central place. One intriguing element of this is the discovery of a *collyrium* stamp, indicating the possibility of a healing function to the baths (Jackson, 1999, p. 110). This could perhaps substantiate the idea of a ritual potency to Wroxeter's water supply. It also may be evidence for the presence of doctors within the walls of the baths. Baker (2011) has recently questioned whether these artefacts are actually indicative of a distinctly 'Roman' medicinal practice. The distribution of *collyrium* stamps is weighted heavily towards temperate European contexts rather than Italy (Baker, 2011, p. 159). Moreover, in these provincial settings it is comparatively rare to find them within a Roman military settlement (Baker, 2011, p. 163). Consequently, while the application of *collyria* was a practice stemming from a Mediterranean context, the proportions witnessed in provincial settings could be symptomatic of a link to a more pervasive local tradition of ocular healing. In line with this, it has been noted that while *collyrium* stamps referred to particular types of *collyria*, these have not always been found to match (when both have been recovered). Therefore it may be the case that similar local remedies have been matched to the original Latin *collyria* inscription (Baker, 2011, p. 164). The last aspect to mention, in regards to the stamps, is that they also appear to have been deposited in watery contexts. In Gaul there are a significant number of these items found in rivers, wells, pits, and baths; these could also be under-represented, since the artefacts are small and easily missed in river dredging (Baker, 2011, p. 171). This would appear to link the stamps to the well observed water traditions of the northern European Iron Age, and casts a different light on the example found at Wroxeter.

Further diversification of activity is found in the Late Antique phases of the structure. In this period, metalworking and also burials occur in the baths and associated *basilica* (Wright, 1872, p. 68; Barker, et al., 1997, pp. 72-79). The subsequent interpretation of an early church being built in the *frigidarium* area only serves to further the ritualistic link (Rogers, 2008, p. 142). Regardless of its specific use, the evidence for timber structures surrounding this central building in the fifth century implies its continued prominence

(Barker, et al., 1997, pp. 138-168). This enduring quality, together with the evidence for diverse activities, suggests that the Wroxeter bathhouse represents far more than the simple adoption of Roman style bathing. It became the heart of the community when other 'Roman' features like the *forum* were falling out of use. Therefore, it is plausible to suggest that local adaption and interpretation was at the heart of its continued prominence.

5.5.7 Lincoln (*Lindum Colonia*)

The primary public baths at Lincoln were situated within the north-east part of the Upper city, overlooking the Brayford Pool area (fig. 38). Despite the full plan of the building never being exposed, remains of several rooms with deep hypocausts and tessellated pavements seem to show this was a building of major significance (Jones, 2003a, p. 79). Indeed, these rooms covered an area of at least 60 metres by 45 metres and possessed clear evidence of extension after their initial construction. A major rebuilding or modification project looks to have taken place in the late Antonine period or soon after (Jones, 2003a, p. 80). It is possible that the structure had a precedent in the legionary phase of the town, but currently there is only evidence of timber structures within the area. It has been noted by Jones that, somewhat unusually, the baths do not appear to have had an entrance on the main *cardo* of the Upper city; instead, the east to west road looks to have been the main access point (Jones, 2003a, p. 79). This does not necessarily have to be an important attribute, but it could be involved in wider processes concerning the water supply to these baths.

It has been emphasised how the Upper city of Lincoln has a multitude of water sources in the Roman period. St. Paul's well, with its potential beginnings as an Iron Age focal point, and then its later role as a central feature of the *principia*/*forum*, is a highly significant feature. It is close enough to have been a source of water for the baths, and the idea of moving water between the *forum* and baths could have referenced similar water rites on the hilltop from deep in prehistory. Even from a Roman perspective, the linking of the official power of the *forum* to another monumental building is symbolically potent. Similarly, the massive "blind well" would have been located within the same insula as the baths (Abell & Chambers, 1971, pp. 19-20). As explained previously, this feature could have been extremely important in Roman Lincoln but we are limited to only antiquarian

observations of associated piping (Britton, 1812, pp. 600-1). It could have supplied the bathhouse and was potentially also filtered out of the town for ritual reasons. Finally, the bathhouse is also close to the suspected *castellum aquae*, which is one supposed termination point of the aqueduct. This external water could have symbolically linked the town to the wider importance of the waterscape in this region. We cannot rule out any of these possibilities; in truth, the water supply may have been a combination of all of them. In light of this, the bathhouse would have become the central place where all these powerful waters were mixed and where one could interact with them. Moreover, the bathhouse could have fused the associations of these sources before draining the water down the hill to the ritual area of the Brayford Pool.

In light of this, it is also important to recognise the activity in the Lower city. There could well have been another bathhouse within this area (fig. 60), close to the fountain and temple enclosure that was discussed previously (see section 2.6.3). The discovery of a possible *Mithraeum* (Stocker, 1998) within this zone also echoes the examples at Leicester (in the same *civitas*) and Silchester. Any bath structure here is unlikely to have had strictly practical functions and could well have possessed some sort of connection with the primary building in the Upper city (Stocker, et al., 2003: 7.2). Regardless, it seems increasingly unlikely that these structures were merely a product of a traditional Roman identity package. The water traditions in this area of Britain are too prominent to ignore, and it would be naive to suggest that they did not have an effect on the conception of structures so intimately involved in the manipulation of this medium.

5.5.8 Colchester (*Camulodunum*/*Colonia Claudia Victricensis*)

The evidence at Colchester is fragmentary at best. Initial discoveries during a small excavation at 61-2 High Street uncovered, what appeared to be, a cavity formed by a massive hypocaust (Crummy, 1988, p. 37). In some ways a public bathhouse in this location (the north-east of Insula XXX) would have made sense; it was a central area directly opposite the Temple of Claudius. However, the most convincing evidence has been discovered towards the east of Insula XX. This was uncovered during excavations at East Stockwell Street, immediately east of the centre of the modern town and town hall and a location that would have been central within the Roman city. The excavations confirmed

the presence of a very large structure constructed within the second century (Benfield & Garrod, 1992, p. 28). The foundations of the building were around 1.5 metres wide and (staggeringly) nearly 4 metres deep below the Roman floor level; meaning it was unlikely to have been a residential structure (Crummy, 1991, p. 9). Furthermore, ten rooms were uncovered and many were surprisingly small (considering the foundations). Yet one of these was a notable contrast, measuring approximately 10.5 metres wide by 27.5 metres long (Crummy, 1991, p. 9). This general location within the Roman city had seen little opportunity for excavation in the past and hence had been thought likely to contain some of the key civic structures that had to date proved elusive in Colchester, namely the *forum* and *basilica* and the main baths. The unusual fragmentary plan revealed at East Stockwell Street eliminates many public building types from consideration; apart from the bathhouse it could only plausibly have been a *basilica*, market, or some sort of palace (Crummy, 1991, p. 8). This interpretation was strengthened by the discovery of a substantial drain in the large room (Benfield & Garrod, 1992, p. 30). Part of the problem of deciphering the purpose of the building is that it does not have a traditional plan even for a bathhouse. This could simply be a product of the partial excavations within the present urban context, and there is certainly precedent for a central drainage feature in the *frigidarium* of British bathhouses (Zienkiewicz, 1986, pp. 60-65). Of course, the distinctiveness of this plan could be just as influenced by some form of local variability and purpose for the bathhouse itself. It is possible that the *basilica* type form of the *frigidarium* is informing us of an enhanced social aspect involved in the act of bathing within Colchester; this could feasibly be linked to attitudes towards the medium of water.

The other area where recent excavations have uncovered some sort of bath related structure is in the north-western corner of the town (Insula I). The remains of a room with a tessellated floor, benches, and *in situ* wooden piping was a surprising discovery beneath the modern sixth form college (Brooks, et al., 2009). One of the most intriguing elements of this structure is the possibility of a pronounced religious element to its function at some point. The wall decoration of the room during its first phase was white with a floral motif, before being changed to a dominantly red interior. The original colours and the general positioning of the room (on a slope, close to potentially religious water features) hint at similarities to *nymphaeum* structures in Italy (Brooks, et al., 2009, p. 35). The change of decor could signify the incorporation of this religious structure into a grander

superstructure of baths. In this way, it is possible to view such buildings as a monumentalisation of well-rehearsed interaction with the waterscape.

5.5.9 Other Towns

The public bathhouse of Chichester was located in the north-west quadrant of the assumed Roman town plan (fig. 27). The whole structure appears to have covered approximately 5500 metres squared. Work on this sizeable building appears to have commenced in the first century, with a possible Flavian date for an initial working structure (Down, 1978, p. 145). This means that there is a high probability that the native ruler Cogidubnus could have had a significant part to play in the construction of the baths (along with the other urban focal points). This is intrinsically interesting because of what has already been noted about the prehistoric relationship to water in the immediate landscape (see section 4.8.13). Moreover, the purported Temple of Neptune and Minerva, also commissioned by the authority of Cogidubnus, is another feature of the north-west quadrant, with its dedication stone cut in Purbeck marble (*RIB* 91) (Bogaers, 1979). The bathhouse is one of a number of building projects that concern water in early Roman Chichester. Too often this has been seen in terms of a native ruler striving to produce a more Roman urban form, but actually it could be a more nuanced expression of local significance attributed to water. Furthermore, there is evidence to suggest that these baths could have been one of the longest serving buildings of the town (Down, 1988, p. 152); this would appear to further highlight their communal prominence.

At Exeter the legionary baths were erected in the mid-first century, at the rear of the fortress *principia*, and at the corner of the via *decumana* and *quintana*. Perhaps not surprisingly for a military establishment of this date in Britain, and given its function, it is the only stone building within the early fortress (Henderson, 1988, p. 98). The stone used in the bathhouse was a type of basalt known as ‘trap’ which outcrops in the Rougemont Hill next to the northern corner of the settlement (Henderson, 1988, p. 99). The use of this material could simply be a matter of expediency. Regardless, it is worth highlighting because the Rougemont Hill could well have been a centre of Iron Age occupation. Moreover, as outlined in the previous chapter, the focal point for the unusual diversion of the water supply, in the post-legionary era, seems to be the hill itself. So we may be

witnessing a more profound statement of interaction with the local landscape than has previously been considered. Incidentally, the mouldings and basins of the baths were cut from Purbeck marble, a stone that often echoes the colours and characteristics (bubbles, troth and flow) of water in its appearance (Bidwell, 1979).

When Exeter eventually developed into a fully-fledged civilian town, the bathhouse was altered to become a *forum* and *basilica* structure (Henderson, 1988, p. 112). The large outer walls were maintained and the internal rooms altered to conform to a more orthodox *forum* plan. A new bathhouse was then constructed (probably in the late first century) and the aqueduct supply was rerouted to enter the town from the west to serve these central public buildings. As at Canterbury, the Exeter bathhouse possessed a *natatio*; it measured 16.75 metres long and a little over a metre deep (Bidwell, 1979, p. 122; Henderson, 1988, p. 113). This feature was surrounded by a pavement of sandstone slabs, which is thought to have carried a free-standing decorative colonnade**.** The limited practical use of a *natatio* has been mentioned above, so one should consider the wider symbolic statement it could have made within the settlement. Indeed, as with the example at Canterbury, we are quick to define this feature in bath terminology, but we only really know that it was a pool. Such standing water could have had a variety of uses beyond, for example, swimming or acting as a cold plunge. The date these baths went out of use is also clouded with uncertainty making it hard to propose any significant secondary activities in Late Antiquity (Rogers, 2008, p. 140).

The baths at Dorchester were built at the end of the first century and were of some considerable size. Indeed, Wacher (1995, p. 325) notes how the building contained the usual selection of hot and cold rooms, but they were all exceptional in their size and number. Additionally, the structure is known to have undergone many changes; the addition of a hot tub in the late fourth century serves to illustrate the primacy of water within its later function (Keen, 1977). In combination with these attributes, the site of the baths may have been a place of long-lived religious focus (Woodward, 1993, p. 361). This suggestion is a product of the evidence found at the nearby Greyhound Yard excavations in the late 1980s. As has been documented previously, just to the east of the bathhouse insula a series of shafts with deposits were discovered. Furthermore, in the second century an unusual rectangular stone-lined feature, which probably functioned as some sort of standing pool, was constructed (Woodward & Woodward, 2004, p. 72). It has been

postulated that this feature, plus the associated shafts, is indicative of a sacred enclosure. Added to this, their construction could be tied into the sacred rites required to consecrate the foundation of the town itself. There is a suggestion then that the baths were deliberately placed to associate with these powerful features within the central area of the town (in combination with the *forum* just to the north). The unusual layout of the building and its longevity must be placed in this context of spatial meaning. This interpretation of activity in the central town links well to the postulated relationship between Poundbury and the aqueduct.

The remains of the civilian public baths at York are relatively sparse. It was unearthed during the construction of the Old Station in 1839 and then during 1939 when the area served as a bomb shelter (Ottoway, 1993, p. 88). As a result, there is both a lack of detail in the accounts and relatively little to compare to other examples. The one sizeable room, which we know of, has been interpreted as a *calidarium*. At 9 metres wide and 10.5 metres long, it is probably one of the grandest examples of such a room in the province (Ottoway, 1993, p. 88). Yet, without a detailed floor plan it is hard to quantify what this meant for the overall structure; it could have been one of the larger baths of Britain or could have had an abnormal preference for the *calidarium*. Intriguingly, the other known buildings in this area are temples that have been attributed to Mithras and Serapis. Consequently, the pattern of association observed in Leicester, Lincoln, London, and Silchester may be repeated in York. As suggested previously, this later connection may be a product of meaning inherent within the water supplied into bath precincts.

There are a series of towns in Britain where the archaeological investigations have yet to uncover any sign of a public baths structure; this is usually owing to modern building overlaying the sites. Two of the most notable are Cirencester and Gloucester. In some ways, the fact these particular towns have yet to supply any definitive evidence has helped aid the conception of a very Roman bathing tradition in the province. After all, they are towns that probably had a larger population from other areas of the Empire and thus are more likely to have been aligned to Mediterranean culture. Therefore, without evidence, we have assumed the presence of a bathhouse in very traditional terms for each of the towns, reinforcing this conception of Romano-British bathing practice. Bearing in mind the above portrayal of such buildings at Lincoln and Verulamium (two comparably important towns in the province being, respectively, a colony and a likely *municipium*) these

assumptions should perhaps not be taken at face value. This is especially poignant when one considers each settlement's interaction with its local waterscape, as versed in the previous chapters.

5.6 Discussion

The opening section of this chapter outlined how bathhouses were structures that had a diverse range of functions and thus were easily adapted throughout the provinces. Part of this adaption was inevitably influenced by local concerns. The pattern of benefaction elsewhere in the Empire suggests that wealthy individuals would contribute significantly to the development of bath structures within their localities (e.g. Mackie, 1990). Some have said that Britain represents a very different example, and that the funding for such structures was from military or civic sources rather than from local elites (White, 1999, p. 289). Still, the extent to which one can really separate civic office from the idea of the local elite is somewhat debatable. Furthermore, epigraphic evidence relating to the construction or restoration of public bathhouses in Britain is comparatively poor when compared to other provinces (Blagg, 1990, p. 15). This lack of evidence for dedication may well be a paradoxical proof of a stronger native/local influence on bathhouse construction. Mattingly (2008, p. 67) suggests that in Britain the epigraphic tradition was not necessarily as thoroughly accepted by the local elite. If this is so then the lack of definitive evidence for many bathhouses becomes less significant and could simply indicate that those individuals who created and cared for them did not see the need for inscriptions. Regardless of the particulars involved in interpreting the epigraphic evidence, it seems logical to believe that influential people of British descent would have played a role in 'civic improvement'. This acknowledgement must make us question the, admittedly less comprehensive, evidence we find in Britain. It opens the door to local agency being an integral part of the creation of these structures (DeLaine, 1999b, p. 11). Consequently, it is reasonable to suggest that these buildings would have had some kind of relationship to the legacy of belief within the immediate landscape.

Bearing this in mind, at Canterbury, St Albans and Leicester we have these structures constructed directly over confirmed Iron Age focal points. Moreover, these are all locations where there has been a strong suspicion (or definite evidence in the case of Verulamium) of prehistoric water worship of some kind. In fact one could also add London

and Lincoln to this list because, whilst Iron Age settlement is less evident, the locations of the bathhouses certainly correspond with areas of heightened water meaning in previous eras. If one also considers the evidence of marked Roman period water rituals as being suggestive of previous Iron Age rites, then Colchester and Silchester could also be part of this list. Considering Gloucester, Cirencester and York lack requisite evidence to truly assess, there could be a debate to suggest these places mentioned above represent a list of the most important towns of the province. They are certainly the places which have been identified as the most Romanised.

What seems clear is that we cannot divorce these structures from their immediate surroundings. If the water in these areas had special meaning, it stands to reason that a new water focused structure would have had a link to these beliefs. If we champion the role of local benefactors, with their intimate knowledge of such associations, it becomes even more likely. This is even before we incorporate the ideas outlined throughout this thesis, that the flow of water could carry meaning and thus define structures away from the original source (e.g. through aqueducts). If this added layer of interpretation is also considered, many of the other bathhouses in towns like Wroxeter, Exeter, Dorchester and Winchester become highly relevant; in addition to reinforcing the significance of the above examples. With this in mind, it becomes hard to reconcile the uptake of bath buildings in Britain as primarily an act of cultural alignment with the Mediterranean. Instead it is plausible to think of them as a more crystallised form of prehistoric activities that had been happening close to water for many years.

That is not to say there was no Roman influence on the buildings, there clearly was. We have found many examples of traditional bathing instruments and the layout of British bathhouses loosely complies with a Mediterranean standard. Despite this, it must be noted that we are sometimes guilty of imposing this accepted rationale on room types in bathhouses with very little positive evidence. Furthermore, it has been highlighted in examples such as the Jewry Wall baths at Leicester how the form can be complex and not entirely suitable for a traditional bathing procedure. Indeed, the British evidence is often so sparse that we assume similarity with other bathhouses to gain some sort of clarity on the purpose of each room. Of course, by committing to this method, unusual additions or activities automatically become signs of ‘decline’ or some lack of comprehension of classical standards in the provincial periphery. The evidence of metalworking within the

Huggin Hill baths of London, for example, is found alongside the possible continuation of a bathing function for other parts of the building. It might be natural to think that this suggests a downsizing of the baths and an opportunistic exploitation of the structure. However, the process of metalworking is intrinsically linked with water throughout antiquity (and certainly the Thames) and it is plausible to suggest that this is merely a development of the local perception of the bathhouse. Therefore the new industrial activity could still be integral to how individuals experienced the bathing process.

Another key link to water, which is anchored within local beliefs, is that of health. This has been generally ignored in Britain mainly due to the spectre of the formidable evidence of Aquae Sulis (modern Bath). As explained above, the richness of the site has somewhat hijacked the issue of health rituals within the civic baths of the province. Furthermore, it has some grand instances of syncretism between native and Roman beliefs that surround water. Such examples are testament to the enduring strength of Iron Age belief systems, but they also set an unfair precedent. As a thermal bath the evidence at *Aquae Sulis* is rare in Britain; thus it does not really bear a huge amount of relevance for more 'standard' bathhouses, sourced from fresh water, in many of the towns mentioned. The evidence of Celsus and Pliny suggests that these 'standard' structures still represented suitable locations for the healing of various maladies. The occurrence of occulists' stamps (*collyrium*-stamps) at the Wroxeter baths is perhaps the best example of these less visible practices taking place (Jackson, 1999, p. 110). It has been noted previously how the Wroxeter aqueduct has been interpreted as terminating in a temple structure that could have been related to eye complaints. This supposed temple was only just north of the bathhouse. Subsequently, it is plausible to suggest a connection that could have been integral to the bathing experience.

Considering that the Wroxeter baths are not as deeply intertwined with the local waterscape as other examples, this is quite profound. For instance, in towns like Verulamium where we have bathing structures incorporated into the ritual waterscape of the Ver; or Lincoln where the water had a pronounced value far back into prehistory; these sources could have had transformative or healing values that are hard to discern from the archaeology. The diversity of remedies that Pliny and Celsus account for, in spring water and bathing institutions, implies that many baths in Britain could have had a healing function. Essentially, this diversity highlights the local meaning of each water source and

its effect on the human body. Therefore, despite the Roman nature of the bathhouse, any healing function could be representative of local knowledge and associations that stem from the Iron Age and before.

The final element to bring out from the British evidence is the treatment of bathhouses in Late Antiquity. To an extent this falls outside the remit of this thesis, which has tended to emphasise urban growth up until the end of the third century. However, the fact that some of the baths in Britain have successful lives beyond this peak of activity hints at their importance as urban features. This is not something one would necessarily expect if the building was a short-lived ode to an incoming fashion. The creation of churches on old bathhouse sites at Wroxeter, Leicester and Lincoln means that they were seen as suitable buildings to appropriate. In a more general sense, some settlements appear to have had baths which outlasted their town *forum*, and presumably absorbed the function of that most central of Roman features. Although one could argue the size of many baths lent themselves to a long life within a town, it might also be a sign of the culturally embedded roots and esteem with which they were held locally. It could be postulated that the link to water enabled a deeper legitimisation than existed with other urban features.

5.7 Conclusion

The first section of this chapter focused on emphasising the malleable identity of the Roman bathhouse, even in Italy. Whilst noting the mixed social, political, economic, religious, and medicinal roles of these structures is not particularly revolutionary, part of acknowledging these 'secondary' activities in the bathing process is the fact that there must have been a strong local influence upon each bathhouse. The epigraphic record contains numerous examples pertaining to individuals of local prominence either building or repairing these buildings. Once we introduce these figures into the process of interpretation it becomes hard to maintain the popular consensus of bathing facilities as a uniform manifestation of a central Roman identity. Of course, many Italian elites would have aspired to mimic the grand structures of Rome itself, thus potentially exhibiting a sense of standardised form within the baths of peripheral towns. Nevertheless, the statement of building or repairing a bathhouse would, principally, have been one directed towards the immediate power base of the wealthy citizen. Thus there would inevitably have been various features that were more easily understood by the local populace.

This variation is not merely linked to goals of patrons. The ‘cure all’ value, that seems inherent within many descriptions of bathing, lends itself to a similar degree of local influence. In fact, accessible remedies to common ailments are particularly prone to embedding themselves in the collective consciousness. Yet it becomes apparent when analysing our remaining sources on the topic that there was no universal set of rules which would have been followed to cure illness. The various experts clashed over what particular process was most valuable (cold baths or hot baths etc.). The fact that very little of the advice would realistically have had much of an effect on a suffering individual, probably adds strength to the argument for local variety and interpretation. The more recommendations were proven wrong, the more suggestions that would fill their place. Either that or, presumably, the whims of the Gods, or an incorrectly followed ritual sequence, would be evoked in explanation. Any of these outcomes would serve to maintain a consistent link between such activity and the bathhouse. As such, it is not hard to see the bathhouse as a repository for a kind of folk knowledge involved in the process of healing. Inevitably the role of water and its associations before it reached a bathhouse would have had a bearing on its potential medicinal attributes. The explicit mention of fresh water spring sources possessing healing properties in the classical tradition is well attested. This is where the crossover to religion and ritual is probably at its most obvious. Moreover, it is this arena of local tradition that combines with the issue of patronage to create some problems for traditional interpretation of bathhouses in the provinces.

If we only acknowledge these two issues, then we must change the way the Romano-British bathhouse is conceived. The construction of these buildings within burgeoning towns may well have been partly concerned with conforming to a Roman ideal of civic identity. Nonetheless, there are so many elements of bathing culture that could have been impacted by local beliefs for this to be considered as the only reason for their uptake. The probability that British elites played a prominent role in the construction and patronage of bathhouses opens up many avenues for interpretation. Most prominent among these, is the fact that they would have been well aware of the strong power connections to water within their communities. Of all the new buildings that could be constructed, it might be debated that the bathhouse was the most easily translated power statement to the general populace. The specifics of design or location could well have been channelled towards this audience.

Added to this, once the structure was up and running we are confronted with another layer of experience and interpretation. Even if one completely disregards the goals of local elites, eventually these bathhouses were frequented by the town's populace. As we have seen above, it is their input and conception of space that ultimately defined the bathing experience. Surely a great deal of this clientele would have hailed from the area and their traditional ideas would have influenced the role of the bathhouse within the town. In light of this, the meaning-laden qualities of water emphasised throughout this thesis became focused within these structures. Ultimately, it is this realisation that must make us question the extent to which we can equate these baths as indicative of the spread of a definitive Roman identity. Many of them may have looked the part, but their actual living role was predicated on more parochial terms. In other words, they were buildings defined by hybridity.

Chapter 6: Discussion and Conclusion

6.1 The Nature of Hybridity: Explaining Hybrid Waterscapes

This thesis has set out to research a number of urban waterscapes in the towns of Roman Britain and illustrate their hybrid nature. The term hybridity has been utilised to encapsulate the great degree of complexity that is inherent in the cultural associations and response to the use of water in these contexts during the first and second centuries A.D. The aim of this chapter is to bring together the evidence of the previous sections and clearly outline how this provides a convincing argument for hybridity. Moreover, it will be outlined how a consideration of such cultural complexity can have a significant impact on the study of Roman towns in the future.

One of the primary criticisms levied at past work in this thesis is the tendency for writers to rely on a set of simplistic building archetypes when interpreting Roman towns in provincial contexts. These familiar structures have come to represent a set of universal values that are to be expected in every town, but which are often informed by out-dated ideas of uptake/rejection/continuity of monolithic identities. It was suggested in the opening chapter that a realistic expectation of any settlement in this era was a layered and multi-dimensional experience that could simultaneously represent a coming together of many cultural associations (from both local and incoming sources). This view of the urban experience is the core reason for using the term hybridity. As such, the following discussion will look to explore how urban waterscapes researched in this thesis can demonstrate a variability and complexity that has not been considered in previous work.

6.1.1 'Practical' v 'Symbolic' and 'Man-Made' v 'Natural'

As outlined throughout this thesis there has been a tendency for Roman archaeologists to favour practical reasons behind the construction of features that interact with water in towns. This has largely been due to the way many writers still identify the Roman period with the modern world. Therefore because we put an emphasis on practical reasoning for the supposedly analogous structures of today, similar motivations for their creation are

expected to translate directly to the Roman era. Subsequently any consideration of symbolism has been skewed towards modern reasoning with issues such as conspicuous consumption and largess (public munificence) often taking centre stage. Such an approach to water is not entirely wrong, but it represents a limited discussion of a multifaceted subject. Relying solely on these explanations essentially endorses a uniform caricature of Roman beliefs and motivations that is not easily identified, even in Rome itself. Moreover, it propagates a sense of distance between 'man-made' structures and their 'natural' surroundings. When authors emphasise practical reasoning behind water structures they invariably cast the natural surroundings as something that needs to be overcome or dominated. This then becomes a one sided relationship that does not thoroughly explore the power and symbolism inherent within such waterscapes in local British prehistory and similarly complex incoming Roman beliefs. The fact is that there are practical reasons for all of the water elements explored in this thesis, but this acknowledgement does not rule out deep engagement with the symbolic power of the local waterscapes examined. Furthermore, this entanglement imparts a degree of individuality on these structures that takes their interpretation outside the realms of previous polarising labels of Roman or native.

In previous sections there has been sustained analysis of bridges, wells, aqueducts, and bathhouses in a core Mediterranean setting. The aim of this was to expose how the Roman view of these features was far removed from any simplistic definitions based on parallels to modern practicality and ‘civilised’ living, which are often used to justify such building projects in provincial settings like Britain. Thus, in Rome it was shown that bridges were being constructed to interact symbolically with surrounding natural features; the *Pons Sublicius* was symbolically linked to the nearby Isola Tiberina and both played pivotal roles in the foundation myth of Rome (see section 2.3.1). The bridge brought the Tiber into the ritual calendar of the city and the celebration of the crossing point further enhanced the importance of the island; the ritual throwing of items off the bridge is even suggested as a reason for the island’s creation. As a result the divide between what is ‘natural’ and what is ‘man-made’ is not entirely clear, something that is further emphasised in the creation of temples on the island itself. So while the construction of the *Pons Sublicius* at this point may have had sound practical reasons, this did not preclude a strong symbolic engagement with the immediate waterscape.

Indeed, the characteristics of the Tiber at this point that make it a good place for building a crossing are precisely the aspects that were mythologised; the specific flow of the river, for example, is the reason why Romulus and Remus were placed in the reeds to be found by the She-Wolf. This symbolic power, derived from certain individual characteristics of rivers, was also shown to be applicable to other locations in Italy. For example, it would appear to have been an important factor in the construction of the estates of Cicero (*Leg*. 2.3) and Varro (*Rust*. 3.5.9). The former seems to have been using the individual characteristics of the Liris and the Fibrenus at their confluence to make a statement about his own political position (see section 2.3.2). So we are again looking at 'man-made' feature being constructed to deliberately entangle with the meaning of a particular point in a waterscape, thus imbuing the estate with a sense of grander symbolic legitimacy and strength. The discussion in chapter two illustrates that bridges possessed the capacity for great symbolic resonance in Italy and that this was a central part of the experience of the most important bridges of Rome itself. Yet, there was not some sort of consistent value that could be universally applied to all such examples. Rather their meaning was inherently linked to the particular circumstances of the surrounding waterscape. The result of such analysis is that it becomes hard to talk about a distinctly 'Roman' value to bridges, apart from the fact that they were clearly receptive to the symbolic meaning of the rivers that they crossed.

Similar characteristics were proposed in chapters three and four for wells and aqueducts, two elements of water supply frequently associated with urban life throughout the Empire. It was argued that in an Italian setting it was abundantly clear that underground water was imbued with significant associations ranging from the medicinal to the miraculous. This is attested frequently in the classical sources and is portrayed as highly localised and variable (see sections 1.11 and 3.4.2). Twentieth century scholars have tended to work on the premise that such meaning was reserved for 'living' spring sources and thus was separated from 'man-made' forms of water procurement (e.g. Wissowa, 1912). Yet, the extent to which one can realistically create such a divide is highly questionable. In a linguistic sense it is has been proposed that there is not necessarily a consistent clear-cut divide between wells and springs in Latin, thus it is possible that classical sources are not always alluding to a completely natural phenomenon when describing a '*fons*' (section 3.4.2). Neither is that a realistic expectation when one considers

the practical difference between a well and a spring that is being used by a community. Of course it could be proposed that a well represents a structure that assists the extraction of water from an underground aquifer, rather than a spring source which is water that has already reached the surface through natural processes. However, the best place for a well is somewhere that has a spring source close to the surface. Moreover, when one formalises a spring source to be used by a community its structural framework could essentially be called a well. In fact, considering the widespread references to powerful springs in Italy, it seems entirely possible that there were significant 'man-made' additions to their immediate surroundings. The result is that the lines between what was 'natural' and 'man-made' would have been blurred. Therefore it would be unfair to separate the meaning of wells from the general portrayal of a powerful and highly localised underground waterscape. This is apparently confirmed by sources like Seneca (*Q Nat*. 3.11.4 and 3.26.6) who notes such supernatural associations specifically with wells (see section 3.4.2).

Applying such logic to an aqueduct water supply is equally revealing. It has become customary to view aqueducts as primarily features that transported large quantities of water to an urban setting to satisfy practical requirements. As outlined in chapter four, the symbolism attributed to these structures has largely been related to issues of scale and conspicuous consumption (see section 4.3). Yet the fact remains that Roman aqueducts in Italy were often sourced directly from springs; the same springs that are portrayed as universally important and in possession of varied powers and local associations. In the case of Rome, there is very little to suggest that the creation of an aqueduct somehow lessened or eroded the power of the spring from which it was sourced. Indeed, there is actually much evidence to the contrary (see sections 4.4. and 4.5). The source of the Aqua Traiana, for instance, has been shown to be a highly decorated and ornate shrine to the water that was possibly even visited by Trajan himself. Added to this, the depictions of aqueducts on coins are invariably in the form of reclining deities that suggest the value of the water remains in line with the personified depictions of water in the wider 'natural' landscape. When aqueduct water is described in Rome it is often with the use of the spring from which it was sourced, the Curtian and Caerulian springs are one example (Frontin. *Aq*. 1.13-14). Unsurprisingly, the opening of a new aqueduct would look to have been something that was celebrated, possibly linking into other ceremonies; the waters of the Aqua Virgo would appear to have first entered Rome on the day of the *Vestalia* (Frontin.

Aq. 1.9-10). If its movement in a conduit did not adversely affect the perception of spring water, then the reasoning behind the creation of an aqueduct becomes a far more complex cultural decision even in the heart of the Empire. It also means that it is insufficient to describe an aqueduct as a standardised object that has consistent meaning in any setting. These features would have had man-made, natural, practical and symbolic associations that varied depending on the surroundings and the social milieu of the people appreciating it.

This reappraisal of the value attributed to Roman water supply was proposed as having a profound impact on the way we portray bathhouses. If such water maintained the importance and power of its source then its incorporation into a bathhouse would have been significant. This is perhaps reflected in the way that the classical sources refer to aqueduct waters as possessing the purity of the springs from which they were sourced; almost like the spring fount had been transported to Rome and was housed in the impressive *thermae* (see section 4.4.2). This transference of meaning is also reflected in the varied medicinal uses of 'everyday' gravity-fed baths, as documented by classical authors (e.g. Fagan, 2006). The maladies listed by Pliny and Celsus are varied and extensive, reflecting a similar range of treatments to those listed in association with spring sources (see section 5.2.2). This variability adds a layer of local diversity to these places that would appear to have been based on the values attributed to the surrounding waterscape. On a larger scale, this represents an aspect of bathhouses that has been under-emphasised in the archaeological dialogue. Many writers have portrayed them as buildings with consistent cultural and practical functions. However, the analysis of Italian baths presented in chapter five gives a sense that the meaning of these structures was highly malleable and often dependent on local factors. Therefore, just as wider political aims were easily expressed in their construction, the power of water in certain landscapes could also be effectively focused and respected in the uptake of such a structure.

In summary, the sections of this thesis that concentrated on Italian examples illustrated that urban waterscapes were a complex configuration of many different elements, even in the heartland of Rome. It would not be accurate to describe any of these features as entirely ‘man-made’ or ‘natural’, symbolic or practical. It is suggested here that this represents a degree of hybridity. However, this hybridity is not a consistent mix of values and associations, but instead dependent on the circumstances into which these features were established. Two aqueducts may bare water that is equally important symbolically, but the

specific importance of the water is determined by, for instance, the properties of its source and the individual journey it takes to a settlement. Such thinking inevitably changes the way we look at the implementation of bridges, wells, aqueducts and bathhouses in provincial settings. It means that even if one were to take a completely one-sided 'Roman' view of these structures in Britain the analysis would have to be open to similar levels of integration with local contexts as seen in the Mediterranean. Therefore it becomes increasingly difficult to make sweeping generalisations about the universal motivations for the uptake of water features in a British context because each example is entrenched within a different waterscape. On a more fundamental level, the receptive nature of these incoming Mediterranean associations means it is likely that similar indigenous beliefs would have had an impact on the formation of Roman towns and their relationship to water.

6.1.2 Motivation Behind Hybrid Waterscapes

The previous chapters of this thesis have outlined how the implementation of Roman period bridges, wells, aqueducts and bathhouses clearly interacted with areas of local waterscapes that had meaning in prehistory. It has been proposed that these developments often appear to have heightened and amplified the relationship people had with water in these landscapes, bringing it further into the experience of settlement. The overarching reasoning behind this could be just as layered as the direct experience of the features in question. As outlined above, the incoming Roman influence is essentially receptive and practiced in the manipulation of water for symbolic purposes on the local level. Therefore it is not a great stretch of the imagination to think that, when creating new urban centres, such ideas could have been seen as an ideal way to promote legitimacy and therefore possibly secure a greater degree of stability for the new foundation. Authors like Jones (2003) have discussed the idea of Imperial manipulation of ritually important native water sites. However, this often relies on a sense of dominance being imposed on the landscape as a statement to a conquered population. The proposal here is that one key aspect of developing urban waterscapes in Britain could have been the nuanced and considered actions of the Roman authorities; identifying a key area of cultural proximity that could be used to aid more peaceful centralisation and organisation of territories. This would have

meshed with their own religious and symbolic framework, but also promoted an element of legitimacy to satisfy the wider population and secure political and economic aims.

It is worth noting that many of the Roman period towns that were built directly on or beside *oppida* type settlements in the Iron Age possessed central areas where water was already an integral part of the matrix of habitation and land-use (towns such as Canterbury, Leicester, Winchester, St. Albans, Silchester and Chichester). Other sites had more ephemeral activity in the Iron Age (e.g. London, Lincoln, Wroxeter, Exeter, and York) but in the Roman period became notable examples of integration between a settlement and local waterscape. We know these latter sites had a clear Roman presence and thus such differences in development could reflect the influence of a considered approach by the incoming Roman authorities on the role of water in settlement creation. The latter sites would appear to exhibit a greater degree of caution in configuring water focal points into the new urban form. Moreover, there seems to be a greater emphasis on bringing together the wider power of the surrounding waterscapes of these locations. In these towns we may be witnessing water being utilised by an incoming Roman authority to foster legitimacy and centrality, whereas in other places it is primarily being used to further emphasise more clearly defined long-lived areas of importance. It is possible then that differences in the development of certain towns analysed in this thesis can show us a Roman influence that is assertive of its power in provincial territories but also skilful in the way its power was being projected. Of course as the 'Roman' presence in the province of Britain was itself varied and uneven we cannot overplay a uniformity of purpose. The diversity of such motives can be explored in the case studies below.

The 'Roman' impact on these waterscapes, however, is just one angle on the subject. Native Britons that were local to these emerging urban centres would have had their own views and associations that affected the form and experience of any town in this era. When it comes to the motivation behind constructing the types of water structures explored in this thesis, the perspective of these people has been grossly over-simplified or ignored. The reality is that, as discussed above, because the Roman traditions involving features like bridges, wells, aqueducts and baths embraced a great degree of local variation their purpose in Britain would have been undoubtedly influenced by the attitudes of local people. It has been re-affirmed throughout the previous chapters how water appears to have been meaning-laden in many different areas of Britain throughout a long period of

prehistory, including the Iron Age. The ways in which people chose to engage with this special medium did vary. One reason for this may be that the appearance of water in any landscape is subject to great changes depending on many different natural processes. As a result of such variability the ways in which people interacted with it were also subject to change over extended periods of time.

Nevertheless, it has been mentioned how Bronze Age interactions with water were often characterised by votive deposition of weaponry and potentially had a strong relationship to funerary rites; the appearance of burial mounds built in close proximity to the water may be a sign of this link (see section 1.9.1). However, in the Iron Age there appears to be developments in the way people viewed water, potentially expressed through the deposition of a wider selection of items but also increased structural interactions with water (see sections 1.9.1, 2.2, 3.3, 4.7, and 5.4). By the Late Iron Age the relationship to water seems to have become closer and more intimately involved in life and settlement. Bearing this in mind, the general character of Roman period water interaction in Britain was not necessarily at odds with the changing relationship people had with it during the pre-Roman era. In many ways the urban water features of the Roman period could be seen as a logical and acceptable progression in a sequence of developments that had brought meaning-laden waterscapes further into the human experience of people living in these landscapes. As explored above, the malleable functions or associations that were characteristic of these incoming urban water features could well have furthered such integration of local perspectives. Undoubtedly there was an influx of new ideas, the form of bathhouses and aqueducts are probably most prominent examples, but the way people defined the function of these structures was likely entangled with local beliefs. Thus the changes in the urban waterscape did not have to be based primarily on the motivation of aspiring to a distinct Roman lifestyle imported from the Mediterranean. These changes could have been seen as new ways to relate to very traditional British beliefs.

There has been much debate on the way that Late Iron Age communities functioned. Much discussion on the issue favours recognisable top-down hierarchical structures emerging in the form of local chieftains. Certainly in the south-east of the country there appears to have been the emergence of powerful figures like Cogidubnus who may well have been the product of such systems. Creighton (2000; 2006) has endorsed the view of such a native elite being well versed in the manipulation of symbolic cultural features from

their immediate local landscapes and also incoming Roman traditions. He casts such individuals as playing a key role in producing legitimacy for many emerging urban centres by combining incoming ideas with their ability to call on knowledge of how power was traditionally produced in their regional centres. The existence of such groups or individuals creates another layer of perspective when considering waterscapes. Often their role has been designated to be the driving force behind the uptake of Roman lifestyle choices; these native elites supposedly wished to mimic their continental peers and aspire to the civilisation of Rome. Some of them may have even grown up in the Mediterranean and wished to 'civilise' their native lands along similar lines. These motivations may be compelling to a modern audience but it also is primarily an endorsement of Romanising dialogues that are unhelpful in documenting the changes of the time (see sections 1.5 and 1.6). However, re-evaluating the value of urban water features along the lines of this thesis gives us ample room to suggest the motivation of such local elites. The cultivation of these urban waterscapes could have presented an opportunity to project power on different levels. They would have been utilising incoming methods to signify relevance in the wider Empire, but the message would also have maintained a great degree of relevance for the immediate local population. Consequently it could be seen as a way to centralise their power base so as to better fit into the Roman provincial organisation, but at the same time not neglect the enduring symbolic and ritual currency of waterscapes that had likely been used to legitimise powerful individuals or groups in the pre-Roman period.

Of course, it is not certain that everywhere in Britain possessed such a clear-cut and motivated hierarchy that may seek to gain more personal advantage from the cultivation of important symbolic places. Areas of the country that perhaps lacked a chieftain structure to dictate on a regional level may have consisted of a number of smaller communities characterised by less rigid hierarchical structures (Hill, 2011); kinship links or common interests perhaps bound these groups. Such societal structure could have been reinforced and maintained by the coming together of disparate communities at certain points in the year, perhaps related to agricultural practice or accepted ritual events. The value of water in Iron Age society (as explored in chapter one) shows that it may have been a focus for large-scale activities that connected such communities. Colin Haselgrove, for example, has suggested that the great Late Iron Age enclosure at Stanwick North Yorkshire may have developed around a sacred bog: the source of the Mary Wild Beck (pers. comm. Steve

Willis). There are a number of instances mentioned in this thesis where the coming together of people close to water may have been the initial catalyst for the creation of settlement at points that would later become Roman towns. The case of Stanwick is germane because it was in the territory of the Brigantes, a tribe seemingly less well centralised than some of their southern counterparts. Furthermore, there have been other instances of supposed ‘sacred waterholes’ in association with settlements in Yorkshire at Heslington East (Ottoway, 2010) and Shiptonthorpe (Millet, 2006) (see section 3.5.9). Such local traditions may have played a role in the success of the Roman town at York, which was located at a flood prone confluence between the Ouse and the Foss.

As a result it may be possible to see the establishment of some urban waterscapes in Roman Britain as active expressions of communal activities that had been happening, in some form, for many generations previous to the Roman era. As noted throughout this thesis, we know that water manipulation in the Roman period involved a great degree of community activity to make it viable; aqueducts and canals for instance both would have needed extensive maintenance and this appeared to be the responsibility of local communities rather than central organising bodies. So even without a defined 'local elite' there could still have been a motivation to create more profound structural links to certain waterscapes, so as to rehearse and remake long-lived local connections and practices.

It is likely that elements of these perspectives could have coexisted in many of the towns explored, perhaps to different degrees. The effect is that not only can we see these water structures as hybrid in terms of their definition and function (as explored above), but also as possessing hybrid motivations for their creation. Subsequently, the idea of defining, for example, a bathhouse as 'Roman' without considering its multidimensional local waterscape becomes an increasingly limited angle of analysis. The argument here is that such a feature, despite possibly conforming to certain structural standardisation, could still have been a complex expression of cultural hybridity that needs to be considered in its own local context. Moreover, deciphering this meaning clearly has wider ramifications for our view of Roman towns in a provincial setting.

6.2 Case Studies

The following sections will look to combine the data presented on a number of towns in the previous chapters and tie together the overall narrative of the thesis. This discussion

will therefore present evidence-based support for the use of the term hybridity in relation to waterscapes and the wider nature of Roman period towns in Britain. It will be shown how each of these towns was entangled with its own diverse waterscape creating a base diversity within water structures, despite possible generalised similarities in form and practical reasons for their creation. Added to this, the mixing of local and incoming water associations/beliefs led to potentially different motivations for the construction of these urban waterscapes. In turn, this complexity of purpose suggests the possibility of differing experience of the waterscapes existing simultaneously.

6.2.1 Canterbury

Canterbury's positioning in the south-east of England, making it the closest Roman period *civitas* capital to the continent, has come to dominate the way we think about its development (cf. Millett, 2007, pp. 144-7). Undoubtedly there were practical advantages to this site - including the navigable nature of the Stour in antiquity and the control of a crossing site of the river for land based supply to military sites like Dover. Yet it is suggested here that while such practical advantages contributed to the success of the settlement, their consideration above other factors might have overplayed the presence of a defined incoming rationale guiding Canterbury's development. The discussion in chapter two relating to the braiding Stour highlights how this point in the wider waterscape of the area had a great deal of potential symbolic power (see section 2.6.2). The flow of the river created a large liminal island area that would have marked this place as unique within the local landscape. It was precisely the type of place where you would expect that we might detect a concentration of Iron Age activity. The archaeological evidence recovered from central areas of the town (in the form of Dressel 1 amphorae, Gallo-Belgic pottery imports and early sigillata, associated with a clear stratified horizon) confirms that in the Late Iron Age there was permanent occupation of the site focusing on this braiding area of the Stour. Moreover, it appears likely that this activity was not entirely based on controlling the ford of the river but also had ritual elements, potentially focused in a temple area close to the Stour. The centrality of this particular point to the surrounding Iron Age sites such as Bigbury and the newly discovered settlement at the University of Kent goes some way to

exhibiting the need for occupation in the Stour valley. It is feasible that ritualistic value to the waterscape was clarified during periodic activities that bound such communities together. Consideration of such perspectives can give us compelling reasons for Canterbury's establishment that are derived from local stimuli.

One of the main aspects of the town that has been highlighted throughout the previous chapters is the consistent focus of the Roman period structures on the previously occupied Iron Age site next to the braiding Stour at a point which was prone to flooding at the time. The forum, temple precinct, theatre and public bathhouse were all clustered in a small area. Clearly the proximity of such features to one another is not particularly surprising, but the alignment with this point on the river and its previous history is potentially revealing. In many ways the development of the town would appear to show us a heightening of previous associations to the waterscape, rather than the imposition of a new and clearly defined incoming 'Roman' logic. Generally the appearance of structures like the public baths has been viewed as enough evidence to imply such a presence. However, throughout this thesis it has been argued that such structures are not necessarily characteristic of a unifying Roman identity and actually possess a capacity to express diverse local beliefs and associations. In the case of Canterbury, we could be seeing such local goals playing a primary role in the way the town developed.

That is not to say that we are seeing simplistic continuity from the Iron Age. Instead we are witnessing an intensification of interaction with the waterscape that is supplemented by the influx of new forms of expression and technologies in the Roman period. By opening up the interpretation of these new developments to aspects of hybridity we can see how their implementation contributed to a more consistent logic. There was already a settlement at Canterbury and the purpose for the association with the Stour appears to have been derived from symbolic and ritual activity that may have connected the surrounding communities. The inclusion of this braiding waterscape and the direct placement of a forum and temple precinct in conjunction with the river crossing points represented an intensification of activity, but was far from divergent with previous associations. The establishment of the temple precinct itself suggests that the special ritual/religious nature of this location continued to be recognised in the Roman period. The closely associated theatre could also have played a role in such activities; it was noted in chapter four how there is precedent for theatres being used in this way at Frilford (Hingley, 1982) (see

section 4.8.12). This also brings into question the reasons behind construction of the forum directly opposite. The drawbacks of having the central administrative space so close to a flood-prone river (as evidenced by the large scale flooding of the town in the third century) may imply non-practical motivations behind its placement. Near to these central areas the primary public bathhouse was also constructed with its unusual open *piscina* (see section 5.5.5). Generally this has been seen as a failed attempt at mimicking the open bathing culture of the Mediterranean. Yet, as shown in chapter five, the bathhouses of the Empire were malleable structures that could be defined in different ways depending on their locality (see section 5.2). The central location of the St. Margaret Street baths in Canterbury, next to this seemingly important focal point of the waterscape, may well be more than a coincidence. The further supplementation of this area with an external water supply, despite there being access to groundwater (see section 3.5.10), and construction of a number of fountain features helps to further illustrate the central role water played in this small area (see section 4.8.10).

It is proposed here that the growth of Canterbury in the Roman era is in part due to a consolidation and amplification of local associations with this particular point on the Stour that had started in prehistory. The increased connectivity of the Roman period creates opportunities to develop this relationship using new structures and techniques. Influential members of the community could have seen the construction of such features as an ideal way to express their power in a new but understandable way to their contemporaries. Moreover, the large-scale projects of constructing buildings like a bathhouse could have been an outlet for similar communal activities relating to water in the Iron Age (such as the earthworks downstream between Bigbury and the Stour) that may have originally brought people into this lowland site. There seems little evidence to truly substantiate the organised hand of Imperial administration having a firm influence on the development of the town. Results of archaeological excavations, for instance, increasingly point towards an idiosyncratic street grid characterising the settlement, where the primary road is that aligned with the Stour not the routes to Dover or Richborough (cf. Millett, 2007; Fig. 5.15. p. 158), something that contrasts with what one would expect to see with a defined military presence. The high level of connectivity this area held with the continent, even in the Iron Age, suggests it was entirely possible that movement of people and ideas could have combined with local associations to form the catalyst behind the development of this

particular town. The increasingly hybrid nature of the urban waterscape of Canterbury served to project its symbolic and practical strength as a nodal point in the wider landscape and the region as a whole.

6.2.2 St. Albans

As asserted throughout this thesis every waterscape that has been explored has its own unique attributes that would have resulted in differing relationships to urban developments. Furthermore, the cultural influences on the people populating these settlements were also inevitably different from site to site. That being said, it is worth drawing out some similarities between towns that had similar roots in the Late Iron Age to Canterbury. One of the most prominent comparisons would appear to be the Roman town at St. Albans. While settlement in this landscape during the Iron Age was spread over a number of notable sites (shown fig. 39) the area of St. Michael's enclosure, close to the crossing of the river Ver, echoes the circumstances of Canterbury. In a similar way we see the development of a number of central monumental features on top of the Iron Age enclosure and in a close relationship to the river crossing. In fact the act of moving across the Ver may well have been emphasised by the development of the town. In some ways the evidence for proposing such an underlying logic at Verulamium may be clearer than at Durovernum. Creighton (2006 p. 127) has outlined how the enclosure at Folly Lane (with its burial) was a focal point for some of the primary monumental buildings of the central Roman town and this probably built on previous connection with the St. Michaels enclosure. He proposes that this could have been the basis of a processional route. In chapter two it was outlined how this proposal highlights the crossing of the Ver as a key intermediary in any movement between the two areas. With the individual in the Folly Lane burial presumed to be a person of local importance, the Ver could have played an important role in the production of symbolic and ritual meaning for the people living in this landscape before the Roman period. This is furthered with the analysis of the Dyke system in the immediate landscape undertaken in chapter four. The Beech Bottom Dyke in particular has been interpreted as highlighting the approach to this crossing point of the Ver from the neighbouring valley of the river Lea (Bryant, 2007). In the Late Iron Age,

other dyke systems of the area may have also served to symbolically link the Ver to the enclosures surrounding the St. Michaels site (see section 4.7).

As with Canterbury, many Roman period developments in St. Albans strengthen these underlying connections. The construction of central monumental buildings, like the central town temple and forum, facing the Folly Lane site is one aspect to consider. In addition the numerous pit/well features that develop between this temple and the Ver in the second century are equally interesting. These are clearly Roman period developments, but the recovery of a number of unusual finds (that echo temperate European practices) and their location on this important route way suggests local interests still being expressed in the development of Verulamium. The significance of the Ver crossing is also shown through the recovery of potentially votive items in the northern areas of the town close to the river and the Iron Age causeway. A rudimentary carving of a small reclining river deity found in Insula XIX may well be a depiction of the Ver, and its unusual angular style could feasibly be indicative of a native carver (see sections 2.6.7 and 5.5.2). The aqueduct water supply was also channelled into this area of the town, furthering the association with the waters of the Ver (its presumed source but from a point further upstream) and potentially defining the way certain buildings were experienced. The '*macellum*' is particularly interesting with archaeologists undecided on whether it should actually be classified as a *nymphaeum* at some point in its life (Niblett, 2005 p. 105). As a result, this structure may be evidence of how recognition of powerful associations with water could even change our identifications of the primary function attributed to what we have thought of as well-understood 'Roman' buildings.

Within this zone surrounding the river crossing we also have the construction of the Branch Road bathhouse (see section 5.5.2). Traditionally this has been viewed as a type of roadside bathing facility, perhaps frequented by travellers and traders. However, the positioning of the structure in between the Ver and the Folly Lane enclosure, directly on the route Creighton (2006) suggests for ritual procession, and facing the temple, strongly suggests an alternative meaning. It was proposed in chapter five that, in a similar way to St. Margret's baths at Canterbury, the establishment of a bathing facility at this point may be more related to the importance of water in this immediate landscape. The archaeological evidence of the bathhouse points towards sporadic usage of the structure over its lifespan. As outlined by Niblett (2005, p. 84), such attributes fit well with this structure being

involved in periodic ritual rites or celebrations, rather than the everyday portrayal of a bathhouse that so often informs our interpretations. Considering this structure was heavily associated with water it seems plausible to suggest its construction is linked to the other developments outlined above. Its flooding in the second quarter of the third century subsequently could be seen as a further development in this relationship to the immediate waterscape, rather than a symptom of decline and disuse. In fact, by acknowledging powerful symbolic and ritual overtones of water one could characterise such changes as a potent statement, perhaps in relation to changing fortunes of the town or individuals within it.

The well in Insula IV (see section 3.5.1) would appear to show that interaction with water in St. Albans was sometimes a delicate process that required observance of particular actions, possibly to avoid misfortune. The hasty backfilling of this deep feature with ritualistic items appears to be a symptom of concern over the lack any water being found. This action communicates the idea of how interaction with water could be indicative of very unique but ephemeral local meaning, as shown in exploration of more modern wells in chapter two. The lobster claws found within the feature, for example, would seem to mirror the depiction of Neptune on the nearby mosaic. This could be interpreted as a specific reference that links the context of the townhouse and the fortunes its owner to the supernatural values of the well, rather than presenting as a generalised trend. In this way one could even postulate a link between management of such features and the strong ritualistic presence of ancestral power at Folly Lane; certainly the power of important local people is often linked to wells in the aforementioned modern examples (see section 3.2). It also reaffirms the hybridity of the urban waterscape in a town like Verulamium. The well was located in Roman style town house, close to a depiction of Neptune, but its ritualistic importance surely cannot be fully ascertained without a consideration of the immediate local beliefs; a consideration that might be particularly important considering the possibility of a more pronounced well/shaft/pit tradition in this particular region (e.g. Ross, 1968; Medlycott, 2011 p. 91-3).

It has been suggested by Creighton (2006) that the development of Verulamium was based on the ritual processes enacted to venerate a tribal ancestor buried in the Folly Lane Enclosure. The interpretation of this thesis is that the immediate waterscape was a key tool in the production of this ancestral power, with the burial enclosure being reached by

moving ‘over the river’, a fundamental and intentional aspect. The continued manipulation of this waterscape was a way for local people to forge deeper links with this foundational strength. The apparent use of Roman symbolism on coins minted by Catevaulani leaders in the Late Iron Age shows that there was a distinct awareness of continental trends in these areas of Britain. The possibility that such individuals even visited Rome would only aid such developments (Creighton, 2000). As with Canterbury, this means that the uptake of Roman techniques and building forms does not have to have been derived solely from the direct presence of a continental host. The hybridity of St. Albans waterscape is derived from a combination of incoming knowledge and the established pattern of interacting with the local waterscape.

Overall, as with the site of Canterbury, the development of this town appears to be defined by long-held local associations with the immediate waterscape. The Roman period brings intensification to this relationship with the incoming structural forms and techniques that allow deeper integration of water into the lived experience of the place. In both cases (Canterbury and St. Albans), this creates a sense of a hybrid waterscape that is given impetus by native beliefs and furthered through new continental innovations. This leaves us with a series of urban structures that may have typically Roman form but were being utilised to express parochial systems of power and legitimacy through the enduring medium of water and its powerful associations. Nevertheless there are certainly elements of divergence expressed in the development of these waterscapes. Notable is the fact that the power of water at St. Albans appears to be linked to ceremonies relating to a defined ancestral power buried at Folly Lane. By contrast, the importance of the waterscape in Canterbury may have grown from activities involving surrounding communities meeting and remaking bonds of kinship and commerce in the central lowland setting.

6.2.3 Similar Waterscapes to Canterbury and St. Albans

Among the other towns considered in this thesis one could suggest developments at Cirencester, Leicester and Winchester may provide the closest parallels to the examples already mentioned. Cirencester, for instance, may not possess the strong Iron Age evidence we see at the towns above, but the Tar barrows do give us a sense that the area close to the Churn and the Daglingworth Brook may have held importance. Moreover, the relationship

of these two rivers to the upstream *oppidum* at Bagendon is likely to have been important ritually (Tom Moore, pers. comm). The movement of people down to a less practical lowland setting, on an island between braiding water, echoes the relationship of Canterbury to the Stour and could have been driven by local beliefs. As discussed at various points in this thesis Cirencester lacks, to date, clear archaeological evidence for monumental central buildings so it is harder to ascertain the role water played within the settlement; this comparable paucity of features is probably more a product of continued occupation over the site than a fair reflection of the Roman town. However, the apparent respect of the surrounding Roman roads to the Tar Barrows would appear to show a negotiated settlement that is not a simple imposition of external beliefs on an exploited provincial location (see section 2.6.5). Their prominence may also echo the Folly Lane enclosure at St. Albans, perhaps signifying the symbolic and ritual prominence of a notable ancestral power positioned above and overlooking the 'island' and the confluence of the two brooks.

Both Leicester and Winchester possess evidence for direct Iron Age occupation of a site that would later become a Roman town. In both cases this development in the Roman period brings the central areas of the settlements closer to their respective rivers (see sections 2.6.4 and 2.6.8); in the case of Leicester we get a similar clustering of monumental buildings around the crossing point of the Soar as witnessed at Canterbury.

Chichester is also worth mentioning here because, while it may not possess the clear similarities in terms of its layout, the initial urban water features are likely to have been commissioned by a local ruler, Cogidubnus (see section 5.5.9). As explored in previous chapters, his motivation for undertaking these projects could very well be informed by a desire to reference sustained interaction with water in this location in the pre-Roman period. One might similarly point to Silchester as a parallel in terms of the motivation behind the development of its waterscape, albeit one that concentrates on underground water rather than over ground sources like rivers. Silchester directly overlies an Iron Age settlement of some scale and, as asserted by Fulford (2001), there is strong evidence to suggest that the numerous wells and pits with potential ritual significance were a manifestation of local ideas and associations. As we move into the Roman period these features are given increased prominence by the development of the town; some are linked with piping to transfer water, others appear in the forum, some are found close to temples and they also likely fed the two significant bathing buildings of the town (see sections

3.5.1, 4.8.12, and 5.5.4). So there is an intensification here that does not show simple continuity, but could still be inspired by local beliefs. These sites would all have had some sort of external 'Roman' influence but we do not necessarily have the sustained presence of an authority that is to be expected at sites like Lincoln (analysed below). Therefore the development of their urban waterscapes may show us new ways in which the local people were expressing established symbolic/religious links to water in the Roman period.

6.2.4 Lincoln

The *colonia* established at Lincoln provides us with a different cultural dynamic to the previous examples. Unlike Canterbury and St Albans, we know there to have been a definite 'Roman' presence at this site. Furthermore, there was also less in the way of sustained and concentrated occupation of this site in the pre-Roman period. Despite this, there is evidence that this place was ritually and symbolically important for native people and its waterscape would appear to have been central to these beliefs (see sections 2.2. and 2.6.3). Before the discovery of these more ephemeral signs of prehistoric importance the interpretation of this settlement had been, unsurprisingly, centred on issues of tactical advantage. The Roman fortress established at the site was on a promontory overlooking the Witham valley with commanding views and controlling a key route through the landscape (the Jurassic Gap). Increased understanding of the town has led archaeologists to question whether such practical advantages formed the main motivation for settlement at this point (e.g. Jones, 2003). The fact that Lincoln became one of only three *colonia* in the province suggests that the symbolic and ritual potential of the site, amongst other considerations, is likely to have been recognised and targeted by the incoming Roman authority.

It is therefore tempting to explain the development of this site as a confrontational and domineering gesture on behalf of this Imperial authority; an important Corieltauvi site was captured and replaced by a distinctly Roman central place to underline the new political hierarchy with its own symbolic priorities. This is problematic because in all the exploration of Italian examples in this thesis the diverse power of water is something that often seems to have been recognised and celebrated by Roman settlement. The interpretation of Lincoln presented here is one that acknowledges a greater degree of negotiation and interaction between the incoming authority and the local people. Instead of

an imposition of beliefs, Lincoln exhibits a more nuanced combination of influences that created a town rich with new architectural forms but also rooted in the long-lived meaning of the immediate waterscape with its strong prehistoric importance. A consideration of the build-up of Lincoln's urban waterscape that has been documented in this thesis can illustrate this hybridity.

As explained in chapter two, one of the most obvious aspects of this hybridity was the accepted name of the settlement (see section 2.6.3). Lindum is an amalgam of both Latin and native language and directly references the watery focal point of the Brayford Pool (Rivet & Smith, 1979, pp. 392-393). If such a decision highlighted the respect of this body of water, the physical development of the initial legionary settlement makes it clear. This Roman military construction is set on the high ground overlooking the Brayford Pool, complimenting this focal point rather than overlying it directly. The *principia* and the *forum* also appear to have been built around the only likely Iron Age focal point on the high ground – the well analysed in chapter three (3.5.5). One might say that this incorporation of the well is a more robust move to supersede any symbolism already attributed to this feature. However, if anything, the status of the well is enhanced and aggrandised, with notable elaboration to its structure and surrounding architectural framework. There seems to be a willingness to engage and enhance the symbolic potential of this landscape, rather than replace it. It is worth mentioning that Legio IX, who are deemed responsible for much building at Lincoln, had been stationed in areas within temperate Europe for many years previous to their appearance in Britain (Stocker & Vince, 2003: 6.9). As a result, they would likely have experienced similar traditions and, as is often the case with the Roman army, could have become concerned with acknowledging the local ritual practices.

On first inspection the creation of the Wigford Causeway would appear to be contrary to these notions of subtle interaction. Its construction makes a direct intervention to the island location where there is evidence of Iron Age activity. As outlined in chapter two, the penchant for writers to associate bridges with dominating symbolism that is in opposition to nature is something we must question in relation to the circumstances being explored. At the site of Lincoln, and in the wider Witham valley, there is evidence for a tradition of constructing causeways to facilitate ritual activity; the deposits found in association with such a structure at Fiskerton were highlighted (see section 2.2). There is also precedent in

the immediate location of Lincoln with a causeway at Stamp End, which continued to be used in the Roman period (Stocker & Vince, 2003: 5.3). With this local practice being so prominent in the surroundings of the town, the interpretation of the Wigford Causeway cannot solely relate to a 'Roman' proclamation of symbolic dominance or utilitarian exploitation of the landscape. The military era developments in the surroundings of this causeway are remarkably sparse; hinting that previous use of the area was probably maintained despite the new crossing. Once the settlement is given *colonia* status (in the first century) there is more activity but the construction of buildings that have been interpreted as potentially religious in character suggests the Brayford Pool area is still inherently special as Lincoln develops in the Roman period. The Causeway essentially heightens the human interaction with this waterscape, which is something that could have been viewed as a positive development from a number of perspectives.

The prehistoric trend in this locality was for increased direct contact with water as time had moved on; in the Bronze Age barrows on the edge of the Witham were constructed, in the Iron Age there was an increasing tendency to supplement this with the construction of causeways and deposition of items. The Roman period growth of this site sustains that momentum with the application of more advanced causeway construction and the potential of more a permanent architectural presence nearby. It is therefore perhaps unlikely that local people would view the construction of the Wigford Causeway as an invasive statement contrary to their experience of this landscape/waterscape in the past. Instead this structure could have been a welcome augmentation that facilitated a closer relationship to this ritually important place. From the incoming Roman perspective this was an advantageous circumstance that could further the sustainability of an initially tenuous new foundation, while also reflecting the degree of caution that characterised the army's interactions with places linked to prominent local deities. These changes forged a strong link between the important Brayford Pool area and the high ground where the initial fortress had been constructed. In the process this opened up the potential of the previously unoccupied area on the intermediary sloping ground, thus reinforcing the possible processional link that may have existed between the low and high ground in the Iron Age. In many ways the importance of these developments may have been illustrated by the successful extension of the settlement in the second century down this unpractical sloping terrain towards the Brayford Pool. As a primarily economic undertaking the overall build-

up of the site does not appear to be particularly wise; transporting people and goods to the upper city would have been a marked undertaking. On the other hand, as a site defined by a considered relationship to a symbolically rich and ritualistically important waterscape this development follows a clear logic.

In light of this, the reconsideration of aqueducts presented in chapter four is particularly important for the interpretation of Lincoln. Practical arguments related to the construction of this water supply have been considered in detail by numerous different authors (see section 4.8.1), but they are not entirely convincing. The presence of an active springline at Lincoln, in addition to prominent known wells, seems to confirm an abundance of available water sources. However, by portraying the aqueduct as a structure designed to interact and manipulate the meaning-laden surrounding waterscape we can detect a great deal of value to its establishment. It furthers the sense of Lincoln being a nodal point to experience water within the landscape, adding another element to the natural confluence of the Till, Witham and spring waters of the immediate site. The drainage of this new water reinforces the aforementioned symbolic links between the high ground and the low ground. The monumental drains (the largest discovered in Britain) also would have given ceremony to this water draining into the Brayford Pool itself. In this way the aqueduct would have played a key role in propagating and strengthening the sense of centrality and legitimacy, infusing the structures of the town with sacred local water (probably derived from the Roaring Meg Spring).

This thorough entanglement of Lincoln to its watery setting must play a contributory role to how we interpret the experience of the town. It has recently been outlined how the incorporation of locally important water sources may well have turned the upper city into a place more akin to a shrine than a central administration space (Stocker & Vince, 2003: 7.22). The *forum* and the bathhouse probably possessed clear Imperial imagery but they also appeared to celebrate the traditional importance of the local waterscape; the waters from the *forum* well, Blind Well, and the aqueduct all took centre stage in these buildings. One could perhaps make a similar case for the monumental temple precinct that is established in the lower city; the proximity to the crossing of the Brayford Pool combined with the construction of clear water focal points—including a fountain and a bathhouse—suggests similar incorporation of the local waterscape into this Roman period urban framework. The resulting conclusion is that it appears very difficult to generalise the

experience of Lincoln by relying on the implementation of a clear and dominant new Roman identity on a symbolically important site. Instead it is possible to imagine that the growth of Lincoln represents an opportunistic, but nuanced, move by Roman authorities to create a stable centre through a careful alignment with the powerful local medium of water. Indeed, the increasing interaction with water in this landscape during the Late Iron Age suggests that native people may well have embraced these new developments. The probable continuation of religious activity in the Brayford Pool area after the construction of the Wigford Causeway is potentially an initial sign of such attitudes. The expansion of the settlement outside the area of the legionary fortress perhaps also suggests an attraction of local people to the site.

While the growth of the urban waterscapes of Canterbury and St. Albans may be primarily motivated by native people expressing long-held associations through new incoming forms, the development of Lincoln may reflect the willingness of the Roman authority to interact with such local beliefs to establish, legitimise, and bolster a tenuous new colony. There is certainly much evidence to suggest that the alignment of urban experience to powerful waterscapes was widely practiced in a Mediterranean setting for ideological reasons (e.g. Purcell, 1990; 1996). The notable religious attributes of water in Roman Italy, discussed in earlier chapters, also contribute to the idea of using this medium to protect a settlement in the long term (perhaps from supernatural powers). However, this is not specific to one particular region and there appears to be a widespread acceptance of the unique local characteristics of water in different settings throughout the Empire. The result is an urban form that appears very Roman but the experience of which is also profoundly affected by such local associations. The profound intensification of human interaction with water over the first and second centuries also further blurs the divide between what was considered ‘man-made’ and what was considered ‘natural’; the Brayford Pool, for instance, may have been naturally occurring but it would have been heavily augmented by the structures and processes discussed above. So while this town has a different genesis to *civitas* capitals like Canterbury and St. Albans (and perhaps even the capital of its surrounding region – Leicester) it nonetheless exhibits a distinctly hybrid waterscape that underpinned the experience of the settlement.

6.2.5 Similar Waterscapes to Lincoln

As another *colonia* site, Colchester potentially illustrates a settlement with comparable external Roman input to Lincoln and might be said to demonstrate a similar negotiation in the manipulation of water at the site. The surrounding landscape of Colchester possessed a far more pronounced Iron Age presence than we see at Lincoln, with important sites at Gosbecks and Sheepen. As mentioned previously in this thesis both sites may well have had important ritual and symbolic links to nearby water (see sections 2.6.6, 3.5.6, 4.7, and 4.8.7). However, despite there being more clear-cut Iron Age central places in this area there seems to have been a similar effort for the Roman settlement to respect these locations, as at Lincoln with the activity in the Brayford Pool. Colchester was built between these two Iron Age sites, close to the flood plain of the Colne (the river limits the town on two sides), and at a place of tidal change. It is very possible that this location was characterised by more ephemeral activity in the Iron Age, as proposed for the upper city at Lincoln. The development of Colchester's urban waterscape in the Roman period is not as easily discerned as at Lincoln but it could be proposed that we see a similar centralising pattern that uses water to establish the symbolic legitimacy of the new colony.

After the initial legionary phase, the settlement expands into a fully-fledged *colonia* that seems earmarked to be the provincial capital prior to the Boudiccan revolt. The construction of the Temple of Claudius was undoubtedly a strong focal point within the expanded site. Opposite this monumental structure is the previously discussed '*mithraeum*' (see section 4.8.7). Essentially this structure represents the monumental augmentation of a spring for purposes not known to us. Its location close to the provincial Temple of the imperial cult might signify a similar incorporation of an underground water source into the central symbolic areas of the town as suggested for the upper city wells at Lincoln. The channelling of this water to the north of the city, to a place that was not far from a number of Roman period temples, may be further evidence for this; certainly the previously proposed explanations for the movement of this water are not entirely convincing. The central areas of the town cannot have been flood prone given the elevation. Also even if this spring feature did cause such inconvenience it seems likely that the practical solution would be to harness it for internal supply, rather than siphon the presumably high quality drinking water straight out of the town.

Perhaps the clearest way that Colchester may have been centralised in the wider waterscape was the establishment of an aqueduct to connect Sheepen and the Roman town, in addition to a possible conduit that drew water from areas south of the city (on the route to Gosbecks). Their arrival point to the town, the impressive celebratory Balkerne Gate, may indicate the symbolic currency of these waters. There were a number of temples in this area and the scale of the gate itself betrays a purpose beyond the practical. In many ways it echoes the monumental arches of Italian towns explored in chapter two; structures which were often skilfully entwined with water for ideological and symbolic impact (see sections 2.4.4 and 2.4.6). As Creighton (2006) and Esmonde-Cleary (2005) have mentioned, the gate could also have played a role in processions to and from Gosbecks. It was also noted in chapter three how there could have been similar processional links to the Sheepen site from Colchester (see section 3.5.6). The water from the surrounding landscape could further bind Colchester to important peripheral sites, highlighting its central role in the experience of a ritualised landscape. So, as with Lincoln, the build up of the urban waterscape created a centralising force that underlined the importance of the new settlement by relating it to important Iron Age places and associations in the wider landscape. While we may be seeing a greater degree of incoming Roman influence at this *colonia* site, the incorporation of locally important water sources creates hybridity within the central urban areas, manipulating experience through these structures of the new town.

It is tempting analyse the intention of Roman colonies as one-sided cultural impositions on provincial landscapes. However, perhaps this analysis of water shows the extent to which the symbolic strength of these new settlements was just as likely created through a careful negotiation and intertwinement with local sources of power; a state of affairs that would go some way to limiting alienation, satisfy a highly superstitious Roman military from a religious perspective, and also provide a platform for economic and political stability. Whilst the picture of Roman period developments at the other provincial colonies of Gloucester and York are less clear, it has been mentioned in this thesis how both sites could similarly have been chosen to take advantage of meaning-laden waterscapes (see sections 2.6.8, 3.5.9, 4.8.13 and 5.5.9).

6.2.6 London

It has been argued throughout this thesis that the waterscape into which this town was constructed was one of the most diverse and impressive of all the sites explored. The presence of the Thames is key to this individuality; the broad expanse of this river in antiquity is unlikely to have been rivalled at any other Roman settlement in the province. As highlighted in chapter two, discussion into the relationship between the Roman period town and the river has largely centred on the practical advantages (e.g. Todd, 1989; Perring 1991; Rowsome 1998) (see section 2.6.1). Such analysis documents the broader benefits of creating a settlement on a large navigable river with a clear route to the sea and the subsequent trade opportunities that would have created. The specific location of London is portrayed as similarly advantageous in that it is the lowest feasible bridging point of the Thames and therefore is an ideal place to connect the town to a wider road network. These interpretations of London's waterscape have subsequently come to dominate the whole rationale behind establishing the settlement; ultimately the town has been portrayed as a trading centre that became a prosperous nodal point in wider management of the province.

This thesis has not sought to oppose these practical and economic dialogues, but instead has looked to emphasise further advantages in London's close relationship to water. One factor to note in this regard is the wider link that London had to the sea is not something just important in an economic sense. The ocean is ritually important in both the Mediterranean and Iron Age Britain, meaning London's role as a starting point/destination for sea voyage brings its own collection of associations and beliefs. That aside, one of the primary aspects of London's practical link to its waterscape is based on the main crossing of the Thames. As noted in chapter two (2.6.1), this is generally seen as a common sense decision based on the character of the river at this point; it is the best place to build a bridge, so the 'Romans' built a bridge and the town subsequently flourished due to this integration with the land and water based transport network. That is probably all true, but it is also likely an incomplete view of the significance of the bridge and the wider advantages to the site.

The very fact that this was the best bridging point means we are discussing a place that was intrinsically different and special in the wider waterscape. The same physical characteristics that make this point important in a practical sense, could lead to

differentiation in the wider understanding of the place. This is even more relevant when you consider the supernatural rationalisation of water and nature throughout Europe at this time; such points of fluvial change would have been explained through this prism of local beliefs and associations, rather than a scientific understanding of the river. We should also acknowledge that while the permanent bridge across the Thames was a new development of the Roman period, less permanent forms of crossing were inevitably part of life for people for many generations previous. This means that the knowledge of the river was likely to have been well developed and any such points conducive to crossing would have been identified and utilised, resulting in many layers of cultural experience.

Further to this, the bridge is also marked out by its engagement with other important elements of the local waterscape. The islands of Southwark have signs of occupation before the Roman period. Many similar island locations on the Thames have also been interpreted in ritual terms (see section 2.2) and there is possible evidence of funerary activity that could hint at the importance of these islands (see section 2.6.1). This could add to the argument above that this point was known within the local landscape. The bridge would additionally have been close to a number of river confluences, something that further underlines its links to surrounding elements of the waterscape. The Walbrook is one of these, with its notable evidence of deposited Bronze Age skulls that may have been part of ritual processes; Bradley (1990, p. 181) even suggested that such activity could have extended into the Iron Age. It is feasible to suggest that it may have been held in particular esteem locally and thus its confluence with the Thames could also be important. The wider status of confluences explored in chapter two means that the meaning derived from the coming together of the Thames with other smaller rivers nearby should not be underestimated. These attributes further the connection of this bridge with its natural environment and would have promoted unique symbolic and religious meaning, even if there were sound practical arguments for selecting the location.

One of the main points highlighted throughout this thesis is how many of the towns explored were not only sited close to such interesting points in their local waterscape, but also actively engaged with them. London is a prime example of urban water features highlighting these places of symbolic potential in the local waterscape and integrating them with the fundamental experience of the town. In the Roman period it appears that we have direct material evidence of a ritualistic link between the primary Thames bridge and the

river it crossed (see section 2.6.1). The accumulation of coins deposited at a specific point mid-way through the crossing shows that people were concerned with engaging the surrounding water as they traversed the structure (Rhodes, 1991). Therefore the construction of the bridge does not marginalise the presence of the river, it offers a platform upon which individuals can interact with it directly. Moreover, it created a vantage point from which one may have been able to see the other important watery focal points outlined above, such as the nearby confluences and the islands of Southwark. This meant that any meaning inherent within the immediate waterscape became part of the overall experience of the bridge, and therefore was also bound into the act of entering or leaving the town itself.

A similar argument can be put forward for the bridges across the Fleet and the Walbrook. The two roads leading into the town from the west appear to cross these rivers at points of change that could have been perceived as important. Areas of tidal interchange and island forms coincide with these crossings and they would appear to have also been respected with votive deposits (see section 2.6.1). These two roads both lead towards the central *forum* of the town and would have been the access point to a number of primary monumental buildings. As noted in chapter two, the act of crossing and engaging with water was then crucial to gaining access to the central buildings of the town. Added to this, the relationship to water was notably intensified close to these crossing points. The Middle Walbrook zone (largely encased by the two Roman bridges) appears to have had a long-lived religious meaning, with a number of possible temples. It was also characterised (as mentioned above) by its copious groundwater, and thus in the Roman period became heavily associated with wells. Unsurprisingly these attributes meant the Middle Walbrook witnessed sustained human manipulation, even becoming an internal aqueduct system of sorts in the second century; water from the river was infused into surrounding structures, increasing its presence within the fabric of the town. The equivalent point on the River Fleet has similar traces of religious activity with the octagonal temple structure nearby. Furthermore, the entanglement of 'man-made' structures with the river is also manifest in the creation of a leat system that manipulated the water flow to power mills and possibly other transformative industrial processes (see section 4.8.6).

The establishment of numerous bathhouses in the town seems to solidify this close relationship between important points of the waterscape and the urban experience. The

Huggin Hill baths were located on the springline close to the Thames and were part of the panorama of the riverfront; a locale that increasingly gained importance throughout the Roman period. As outlined in chapter five (section 5.5.1), other baths have been found close to the Thames bridge, on the northern Southwark island, at the confluence of the Walbrook and Thames, and in the Middle Walbrook zone referenced above. These examples therefore appear in the areas where water may have been at its most meaningful/symbolically powerful, perhaps echoing the examples mentioned at St. Albans and Canterbury.

The above summary illustrates how the primarily practical approach to examining London's waterscape is distinctly limited. These Roman period features cannot be separated from their immediate context and the power this appeared to hold. The complex mixing of 'natural', 'man-made', symbolic, religious, and practical makes the term hybridity applicable. At the same time, by acknowledging this incorporation of the powerful local context of London into the interpretation of urban structures we diversify the motivations behind their creation and the town as a whole. What could be suggested is, alongside practical advantages, the symbolic potential of this waterscape made it a particularly opportune place to locate a town that satisfied a number of motivations from both incoming Roman ideologies and local traditions of belief.

The waterscape of London may well have given the location a degree of centrality before the establishment of a defined town. The characteristics of the Thames at this point, the Southwark islands with their traces of settlement and burial/funerary activity, plus the apparent ritual deposition of skulls in the Walbrook further back into prehistory all hint at transient activity that could bring people together from the wider landscape. The town was also located close to the accepted borders of up to five tribal territories. As evidenced throughout this thesis, the people of these surrounding territories would appear to have placed an emphasis on sites located next to such watery contexts. Moreover, movement of people between these Iron Age territories may have already led to areas close to the eventual site of London being points of meeting and interchange; serving as a neutral place that was outside the control of any defined worldly authority. The Thames was seemingly a dividing line between the assumed territories of southern Britain, hence meeting within its influence may have been ideal for mediation of inter-territorial issues and relations. With

competing regional interests it is likely that such a site would not be permanently occupied, but still may have been intrinsically important and known (Bradley, 1990 pp. 180-181).

It is often reaffirmed how establishment of a new site on the Thames was an ideal opportunity for the incoming Roman authority in economic terms. It is proposed here that this site also possessed clear symbolic potential that is unlikely to have been missed by individuals well-versed in the manipulation of natural contexts for such purposes and, in all likelihood, increasingly knowledgeable of the similar beliefs surrounding water in this provincial context. The entwinement of this town to its local waterscape would have been a statement that translated well into the traditions of the various surrounding regions and could have solidified a more ephemeral Iron Age centrality of the Thames (and perhaps this particular point) within southern Britain. Such a process would have given the new town an aura of legitimacy. To create a successful mercantile centre one needs to attract diverse people to settle and travel to the settlement in question. Establishing deeper links with this waterscape could have been a way to translate widespread viability, authority and familiarity to different people, thereby creating a platform upon which to build a successful capital.

This layered motivation to interact with the waterscape can perhaps be drawn out in the creation of the elements explored in this thesis. The Thames bridge may be the clearest of these structures to interpret in this way. Certainly its alignment with the central forum, on the more formally planned eastern side of the Walbrook shows incoming Roman planning influences. The technology of the bridge itself is also similar to continental pile bridges, showing the influx of certain technological ideas. The symbolic currency is also abundantly apparent, the construction of this bridge links one of the largest rivers of the province to the town's *forum*. Just as the Tiber was so essential to the experience of the central areas of Rome, this bridge made the Thames integral to how one would experience London. It was a creation that embedded this new town into the fabric of the province on a symbolic level. Moreover, the artificial raising of the *forum* in the early second century probably consciously enhanced the effect, heightening its visual link to the nearby river. One could draw some parallels to the construction of the Wigford Causeway at Lincoln, whereby through the construction of a bridge we may be able to see the incoming Roman authority nurturing the symbolism of a waterscape to fortify the central place of the town.

However, it is interesting that over the course of the second century the development of London's urban waterscape becomes increasingly focused on the Walbrook. One might suggest that this is similar planned alignment of Roman London to a meaning-laden environment. Yet, it has been put forward the more 'organic' layout of the town to the west of this river may imply the influence of a more mixed population that almost certainly included people native to the province. It might be suggested then that native associations concerning the river could inspire this increasing manipulation of the waters of the Walbrook and its immediate surroundings. The popularity of the Cheapside baths, in addition to the construction of possible baths in the middle Walbrook and at the mouth of the Walbrook might be a manifestation of long-held respect and worship of the river. Without doubt, as time moves on, the Middle Walbrook becomes an increasing source of hybrid identity for London; the presumed presence of temples to various eastern deities by the third century moves us away from a definitive Roman cultural identity.

The development of London's waterscape provides us with an example that sits somewhere in between the other case studies explored in this chapter. That is probably to be expected considering the mixed population that would have been attracted to this central location in the south-east. Moreover, the sheer abundance of water at London is unrivalled at the other towns studied in this thesis; meaning there is a greater capacity for more interaction and accommodation of various different structural manifestations of importance. What must accordingly be emphasised as a result of this re-analysis of London is that its landscape/waterscape possessed obvious symbolic and ideological potential; a factor that deserves to be considered alongside its undoubted practical advantages when we assess the reasons for urban growth and the way people experienced the town.

6.3 Summary

These case studies show that the manifestation of hybrid waterscapes at the various locales investigated was not a uniform process. Moreover, it is clear that the changes that have been outlined do not follow simplistic discussions of native continuity or Romanisation. The waterscapes of certain towns may have stemmed from local stimuli but nonetheless underwent major intensification with the utilisation of Roman period structural design and

technology. Likewise, the manipulation of waterscapes at other settlements may have been instigated by external motivations, but this was not at the expense of a consideration and incorporation of associations and practices that already characterised that particular waterscape. Further to this, motivations behind the creation of these urban waterscapes do not necessarily translate directly into a clear representation of how they were experienced. So there is an acknowledgement in this thesis that even if one considers a bathhouse that has been constructed for entirely stereotypical 'Roman' reasons, the way a British person perceived and experienced the structure could have differed greatly due to the presence of water imbued with local significance.

Nevertheless, the term hybridity has not only been used to challenge preconceived uniform cultural definitions of ‘Roman’ and ‘native’ being imposed on structures within towns, it has been used to challenge a more fundamental modern bias that separates 'man-made' from 'natural'. It was outlined in earlier chapters how such a divide, although clear in the twenty-first century town, is not reliably imposed on the Roman period in Britain. The towns explored in this thesis—and the case studies highlighted within this chapter— show that where water is concerned these two descriptions of state are increasingly hard to separate within Roman period settlements. While bridges, wells, aqueducts and bathhouses undoubtedly possessed 'man-made' elements one cannot underestimate the extent to which the direct incorporation of a wider 'natural' setting (through the medium of water) affected how they were perceived. Any study wishing to outline the meaning of such features in a Roman context cannot neglect this characteristic if it is to present a rounded portrayal of their value and functions. Thus, the archaeological investigation of urban waterscapes is undoubtedly aided by a consideration of hybridity.

6.4 Making Strange: The Wider Impact of Acknowledging Hybrid Waterscapes

As can be seen in the above case studies, there is generally an intensification of the interaction with the waterscapes of many towns in Britain during the first and second centuries. It brings the power of this medium further into the realm of sustained human experience. The relationship between ‘man-made’ and ‘natural’, practical and

symbolic/religious was increasingly becoming blurred in relation to these waterscapes in the Late Iron Age. Human intervention was manipulating this medium in ways that better communicated meaning for local communities. In certain towns like St. Albans or Chichester water may have been used to clarify the power of prominent individuals and relate their authority to more ancient natural powers; in other places like Canterbury the interactions with water may have been part of regular activities that clarified relationships between a number of surrounding settlements. Increasingly in these places the waterscapes were becoming entangled with the narrative of human experience. These changes were intensified and fortified by receptive incoming Roman influences in the first and second centuries. The technological and architectural influences of continental Europe provided increased ability to manipulate and interact with water, thus they provided ways to strengthen previous associations with this medium in the landscapes of towns. Of course along with these ideas came an influx of new people into the province that had their own motivations for the manipulation of water in urban contexts. The argument that has been made in this thesis is that the incoming 'Roman' beliefs surrounding water were not dissimilar from the indigenous Iron Age beliefs already present in Britain. Furthermore, exploration of Mediterranean examples shows a willingness to acknowledge a great deal of local diversification in relation to the specific conception of water in any given context.

The receptive nature of these incoming cultural influences creates the possibility, as shown above, to suggest mixing of beliefs and technologies surrounding water so as to best express the particular social milieu of different settlements. The case studies explored above all appear to show hybrid waterscapes without strict continuity from Iron Age contexts or a complete betrayal of previous associations with this medium as a result of Roman influences. This entanglement creates a situation where, despite divergent aims in different towns, the presence of water is increasingly centralised within settlements and is intimately related to the experience of place. The binding of meaning-laden water to urban space is a development that allows us to acknowledge further diversity and complexity in the construction of Roman towns. It is a way that we can see the context of these towns having a direct impact on the way they were experienced; a context that is physical, social, political, religious and economic. The effect of this study is that we 'make strange' the Roman town, allowing archaeological evidence and interpretation to inform our view

instead of a general unreflective adherence to a diktat that imposes universal values on urban features.

A number of examples of how this incorporation of water 'makes strange' an urban context can be drawn from the chapters of this thesis. Bridges were seen as active architectural constructions that could fuse the meaning of surrounding waterscapes into the action of moving through a settlement. Thus their incorporation into many different towns could have had a direct impact on the way people experienced surrounding areas. The *forum* at Canterbury, for example, would appear to have been built next to the crossing point across the braiding Stour; a location with considerable importance in the pre-Roman period and with a ritual focal point opposite. It seems highly likely that this importance of the crossing point was one of the essential motivations behind creating a *forum* space. It was already a notable meeting place and thus the creation of a *forum* was an increasing intensification of these associations combined with incoming Roman forms of expression. This means the interpretation of the *forum's* role in the community of Canterbury is not a straightforward implementation of Roman organisation, but a more complex (and 'strange') acknowledgement of the local context. The Thames bridge at London may have had a similar effect on the experience of the monumental *forum*, linking its symbolic power to the ancient traditions of the river in the act of entering the settlement. It was also proposed that the bridges over the Fleet and Walbrook could have defined zones of ritual importance and subsequently played a key role in how the primary east to west roads of the town were experienced.

Wells have been shown to play a similar contributory role in such deconstruction of traditional and generalised interpretation. The St. Michaels well at Lincoln is incorporated into both the fortress *principia* and the subsequent *forum*, with increasing elaboration as we move through the first and second centuries. The well's role as a central water focal point in a wider landscape, where water is notably celebrated in both the Iron Age and the Roman period, suggests that its association with the *forum* is far from coincidental. As shown above, the incorporation of the well may be demonstrating important motives behind the construction of a town at this place. Taking these elements into the consideration this *forum* becomes involved in a local articulation of space, probably representing Roman manipulation of a symbolically rich waterscape in addition to a native tradition of increasing water interaction. Therefore the function of the forum space is

almost certainly partly derived from this symbolic position in the landscape; the interpretation of Stocker and Vance (2003: 7.22) that the upper city was almost like a temple complex goes some way to confirming the divergent function of this particular *forum* from the generalised template of function often attributed to such features. One may also suggest similar transformative effects being derived from the wells in the towns of Dorchester and Silchester. Both have numerous examples of such features in their central monumental areas. In the case of Dorchester, the pits would appear to be delineating ritual enclosures that likely had an impact on the way people experienced the bathhouse directly opposite. Silchester possesses a remarkable concentration of wells with votive offerings in the central *insulae* of the Roman town. Fulford (2001) has suggested how these features may well have been a local tradition that continued and found new forms of expression within the Roman town (as outlined in chapter three the deposition of different objects certainly changes over time). These wells/pits had the potential to influence the function and conception of surrounding urban structures. This may also have been a direct link, so the water from a ritually important well in Silchester was likely to have supplied the nearby bathhouse; in London, wells in the ritually important Middle Walbrook may also have been primary water sources for temple structures and nearby bathhouses.

Aqueducts are often portrayed as the physical embodiment of a sophisticated and practical incoming Roman power. Yet, as versed above, there is plenty of evidence suggesting that even in a Mediterranean setting they possessed wide-ranging symbolic powers, which were predicated on the importance of the water they sourced in the wider landscape. In addition to their practical aspects, aqueducts transported the meaning inherent in these spring and river sources into central urban locations. The importance of the source was not eroded by the water's passage in such a constructed conduit and thus could be a powerful influence in a new setting. If this was the case in the Mediterranean, it seems highly likely that in a province such as Britain, with its own diverse array of ritually important water sources, aqueducts cannot be satisfactorily explained in practical terms. This fundamentally challenges the normal explanation of provincial aqueducts, which are presented as either 'Romans' constructing civilised works or, more often in the case of Britain, natives trying (and failing) to mimic a Mediterranean urban lifestyle.

Instead this thesis has explored the idea that the meaning inherent in the wider waterscapes of many settlements in the British Iron Age is being consciously manipulated

for ideological, symbolic, and ritualistic reasons through the construction of aqueducts in Roman towns. First and foremost, this anchors our interpretation into the local context. Yet, it also gives us a convincing outlet for possible incoming motives, such as control and legitimisation, in addition to providing a platform for the increasing intensification of water control exhibited in the landscapes of many settlements throughout prehistory. Evaluating the aqueducts of Britain in this fashion we are not forced into portraying them as the poor relatives of their contemporary equivalents in continental Europe. Instead we can outline ways that the more structurally simplistic aqueducts of Britain may well have been better suited to engage with the particular associations attributed to the waterscapes investigated. The relationship between the Dorchester aqueduct and the Poundbury hillfort, for instance, is perhaps referenced in the similar construction of the leat style conduit and the surrounding earthworks; the manipulation of the River Lavant at Chichester may have been a more direct way to engage with a waterscape that had already been heavily augmented by the Chichester Entrenchments in the Iron Age; the proposed conduits at St. Albans seemed to enhance connections with the River Ver, potentially building on the previously established Dyke systems that appear to have symbolically linked locations to nearby rivers in addition to sometimes containing water themselves.

This discussion challenges the portrayal of aqueducts in a direct sense, but it also has a wider impact on the way we view the overall experience of towns. Water is such a malleable medium that its influence could permeate vast areas of the urban landscape. If such aqueduct water supplied buildings, it is likely that this would have had an effect on the way one would experience the building in question. Of all the urban beneficiaries of water, the bathhouses were clearly primary consumers of conduit fed water in Britain. The channelling of water into these structures may have radically moved them away from their traditionally accepted function. The upper city bathhouse at Lincoln was likely to have been supplied via water from the Roaring Meg spring and its likely shrine. This local meaning for the water could then have defined how one would perceive the bathhouse. It is possible that it was an experience more influenced by local water rituals than imported Mediterranean practice. The drainage of water through the town could have emphasised such meaning; the monumental sewers at Lincoln highlighted a coming together of waters that fortified the natural confluence of the Brayford Pool, where Iron Age ritual activity was largely concentrated. This impact of water was also explored in relation to structures

that were not necessarily overtly identified with water. The '*macellum*' at Verulamium may well have started as a more traditional market place that we could recognise in Roman Italy, but its association with water grew as time progressed. As was noted in chapter four (section 4.8.8), Niblett (2005, p. 105) has likened the eventual form of the structure to a *nymphaeum*; the addition of a large water supply and drainage is pivotal to this interpretation. Thus the local importance of water, mixed with the possible ritual importance of water in Roman *macella* sites, may have created a space that eventually became more strongly associated with such associations rather than 'normal' mercantile functions.

As explored in chapter five, the bathhouses may also hold interest beyond just the powerful meaning of their water supply. In some communities in Britain the construction of a bathhouse might have been a direct expression of the hybrid importance of the local waterscape. The St. Margaret's Street bathhouse at Canterbury is a good example; it was located opposite to the Temple Precinct which (as stated above) may have been particularly concerned with rituals associated to the crossing of the Stour. Likewise, the Branch Road bathhouse at St. Albans was established in the midst of an important ritualised landscape/waterscape. With these examples the bathhouse is not just a focus for important external water but also could be a fundamental way to interact with nearby sources and create a new way to navigate and respect these important focal points. The history of baths being manipulated and modified to best express the symbolic and ideological messages of local elites in the Mediterranean, makes such a reinterpretation of bathhouses in Britain appear particularly viable.

A key result of the analysis of various different parts of the urban waterscape explored throughout this thesis is that it becomes necessary to acknowledge a great deal of complexity in the interpretation of various features of the Roman towns explored. It illustrates a series of urban settings that were formed and developed with numerous influences and motivations, both local and external. The familiar characteristics and functions that are generally attributed to bridges, wells, aqueducts and bathhouses have been shown to be limited, even from the perspective of incoming Mediterranean influences. These features have been 'made strange' by a consideration of how they related to their immediate context, rather than the extent to which they conformed to an illusory archetypal 'Roman' form and function. This, in turn, has a major effect on the way we view

Roman towns as a whole. Water is such an integral part of the traditional idea of what constituted a Roman settlement, that if its role was markedly more complex then the development of the town probably mirrored this hybrid identity. Indeed, opening the interpretation of water to scrutiny could pave the way for greater exploration of other hybrid influences within these urban centres. Analysis of food and its associated artefacts is an area that has been touched upon in this thesis and that undoubtedly provoked a similar complex mixture of associations and beliefs in a British setting. Hopefully a more questioning approach to the broad familiarity of Roman towns in Britain can thus help us gain a deeper understanding of how they were experienced. In many ways such an approach would provide a more thorough local 'ownership' of archaeological heritage; outlining ways that settlements adapted and changed in relation to their own unique contexts.

6.5 Conclusion

This thesis has shown that outdated parallels between the Roman period and our own modern world still endure in the interpretation of towns. Today archaeologists may be more concerned with highlighting the role of indigenous people in provinces like Britain than in the past. Nevertheless, the contribution of these people to the development of urban space has not extended to the manipulation of the ‘well-understood’ building types that have come to define ‘Roman’ settlements. Added to this we also continually underplay the extent to which such incoming ‘Roman’ influences could be receptive to the integration of particular customs and beliefs found in provincial contexts. This propagates the idea of a clear-cut divide between native and Roman; meaning we can acknowledge straight continuity with Iron Age practice appearing in these towns, but characteristically Roman structures are still understood as being built for universal Roman reasons and experienced in a familiar Roman fashion. It was proposed in this research how such easily defined and generalised motivations are likely to be unrepresentative of the complexity of urban development during the first and second centuries in Britain. The alternative suggested in this thesis was looking at Roman towns as places characterised by hybrid influences, with

a combination of incoming and local beliefs providing the impetus for development and experience.

Water was selected as the medium for this study on the basis that the evidence for its role had become too prominent to ignore and because it clearly shows the drawbacks of past research, while also illustrating the potential of considering hybridity. The portrayal of waterscapes in Roman towns was highlighted as being in greater alignment with attitudes in the modern world than with how archaeologists have presented it in a pre-Roman British setting. In reality this disparity is probably based more on the bias of our approach, mentioned above, than the actual evidence. Exploration of how water was understood in a Mediterranean setting was undertaken in all the chapters of this thesis and summarised above. The result of this was the conclusion that even in this core 'Roman' cultural zone bridges, wells, aqueducts, and bathhouses could all have possessed symbolic and ritual associations based on their relationship to water. However, these special values were very much dependent on the local context and the particular attributes of the waterscape into which they were placed. This suggests that 'Roman' values pertaining to water were more reminiscent of contemporary temperate European beliefs than our own more practical attitudes. It also implies that these incoming influences would likely have been receptive to manipulation and variability based on the incorporation of local provincial associations with water, therefore creating hybridity within towns.

While the primary content chapters of this thesis have concentrated on making the case for the hybrid characteristics of bridges, wells, aqueducts, and bathhouses, this final section has demonstrated the extent to which we can detect differences in the development of these hybrid waterscapes in the various towns of Britain. This gives us a picture of the variability that was predicted in chapter one, while also underlining the multi-dimensional meaning that waterscapes could have possessed in any one location. Through the application of this approach we get a clearer sense of the justification behind the uptake of a number of different 'Roman' period features—in addition to clarification on why certain towns developed in their specific locations—that is based on an examination of a particular urban context, rather than relying on simplistic generalisations to assess their meaning. This gives us a more accurate sense of the agency involved in the perception and experience of towns. Therefore, this thesis has not only challenged the perception of water in Roman Britain, but has also made a contribution to the overarching logic with which we approach the Roman

town. As a result, it is hoped that an acknowledgement of hybrid waterscapes is just a starting point for further discussion on the cultural complexity inherent within the towns of Roman Britain.

Classical Sources

Cassius Dio (Translated by E. Cary 1914-1927) *Roman History*. Cambridge, Massachusetts: Harvard University Press.

Celsus (Translated by W.G. Spencer 1938) *On Medicine*. Cambridge, Massachusetts and London: Harvard University Press.

Cicero (Translated by C.D. Yonge 1878) *On the Laws*. London: G. Bell.

Cicero (Translated by E.O. Winstedt 1912) *Letters to Atticus*. London: Heinemann.

Cicero (Translated by M. Grant 1973) *In Defence of Marcus Caelius Rufus*. London: Penguin.

Corpus Agrimensorum Romanorum (Translated by Brian Campbell 2000). London: The Society for the Promotion of Roman Studies.

Dionysius (Translated by E. Cary 1945) *Roman Antiquities*. London: Heinemann.

Ennius (Translated by E.H. Warmington 1935) *Annales*. Cambridge, Massachusetts: Harvard University Press.

Frontinus (Translated by M. B. McElwain 1925) *On the Aqueducts of Rome*. London: Heinemann.

Galen (Translated by R.M. Green 1951) *On Hygiene*. Charles C. Thomas: Springfield.

Julius Caesar (Translated by H.J. Edwards 1917) *The Gallic Wars*. London: Heinemann.

Livy (Translated by Rev. C. Roberts 1905) *History of Rome*. London: J.M. Dent and Sons.

Martial (Translated by W. C. A. Ker 1920) *Epigrams*. London: Heinemann.

Ovid (Translated by A.D. Melville 1986) *Metamorphosis*. Oxford: Oxford University Press.

Ovid (Translated by G. Showerman 1931) *Heroides and Amores*. London: Heinemann.

Ovid (Translated by J.G. Frazer 1931) *Fasti*. London: Heinemann.

Pliny (the Elder) (Translated by H. Rackham 1942) *Natural History*. London: Heinemann.

Pliny (the Younger) (Translated by B. Radice 1963) *The Letters of the Younger Pliny*. London: Penguin.

Plutarch (Translated by B. Perrin 1923) *Life of Romulus*. Cambridge, Massachusetts: Harvard University Press.

Plutarch (Translated by I. Scott-Kilvert 1965) *Life of Coriolanus*. London: Penguin.

Plutarch (Translated by R. Warner and R. Seager 1972) *Life of Marius*. London: Penguin.

Seneca (Translated by J. Clarke 1910) *Natural Questions*. New York :MacMillan and Co.

Servius (Edition by G.Thilo and H. Hagen 1961) Commentary on Virgil. Hildesheim: Georg Olms.

Statius (Translated by J.H. Mozley 1928) *Silvae*. London: Heinemann.

Strabo (Translated by H.L. Jones 1917) *Geography*. London: Heinemann.

Suetonius (Translated by H.M. Bird 1997) *Life of Claudius*. Ware: Wordsworth Classics.

Suetonius (Translated by H.M. Bird 1997) *Life of Augustus*. Ware: Wordsworth Classics.

Tacitus (Translated by J. Jackson 1937) *Annales*. London: Heinemann.

Varro (Translated by R.G. Kent 1951) *On the Latin Language*. London: Heinemann.

Varro (Translated by W.D. Hooper and H.B. Ash 1934) *On Agriculture*. Cambridge, Massachusetts: Harvard University Press.

Velleius Paterculus (Translated by F.W. Shipley 1924) *Compendium of Roman History*. Cambridge, Massachusetts and London: Harvard University Press.

Virgil (Translated by D. West 2003) *The Aeneid*. London: Penguin.

Vitruvius (Translated by F. Granger 1931) *On Architecture*. London: Henemann.

Bibliography

Abell, E. I. & Chambers, J. D., 1971. *The Story of Lincoln*. 2nd ed. Wakefield: S.R. Publishers.

Ackroyd, P., 2008. *Thames: Sacred River*. London: Vintage Books.

Aldhouse-Green, M. J., 2001. *Dying for the Gods: Human Sacrifice in Iron Age & Roman Europe*. Stroud: Tempus.

Aldrete, G., 2006. *Floods of the Tiber in Ancient Rome*. Baltimore: The John Hopkins University Press.

Allason-Jones, L. & McKay, B., 1985. *Coventina's Well*. Oxford: Oxbow Books.

Allinne, C., 2007. Les villes romaines face aux inondations. La place des données archéologiques dans l'étude des risques fluviaux. *Géomorphologie: relief, processus, environment*.

Ammerman, A., 1990. On the Origins of the Forum Romanum. *American Journal of Archaeology*, Volume 94, pp. 627-645.

Anthony, I., 1970. 'St. Michaels', St. Albans, excavations 1966. *Hertfordshire Archaeology*, Volume 2, pp. 51-61.

Appadurai, A., 1986. Introduction: commodities and the politics of value. In: A. Appadurai, ed. *The Social Life of Things*. Cambridge: Cambridge University Press, pp. 3-64.

Applebaum, S., 1975. Some Observations on the Economy of the Roman Villa at Bignor, Sussex. *Britannia*, Volume 6, pp. 118-132.

Arnold, B., 1999. Drinking the Feast': Alcohol and the Legitimation of Power in Celtic Europe. *Cambridge Archaeological Journal*, Volume 9, pp. 71-93.

Ashby, T., 1935. *The Aqueducts of Ancient Rome*. Oxford: Clarendon.

Ashby, T. & Fell, R. A. L., 1921. *The Via Flaminia*. London: Journal of Roman Studies.

Ashby, T., Hudd, A. E. & King, F., 1909. XXI.—Excavations at Caerwent, Monmouthshire, on the Site of the Romano-British City of Venta Silurum, in the years 1907 and 1909. *Archaeologia*, 61(2), pp. 565-582.

Ashby, T., Hudd, A. E. & King, F., 1911. XIX.—Excavations at Caerwent, Monmouthshire, on the site of the Romano-British City of Venta Silurum, in the years 1909 and 1910.. *Archaeologia*, 62(2), pp. 405-488.

Ashby, T., Hudd, A. E. & Martin, A. T., 1904. VII.-Excavations at Caerwent, Monmouthshire, on the Site of the Romano-British City of Venta Silurum, in the years 1901-1903.. *Archaeologia*, Volume 59, pp. 87-134.

Atkinson, M. & Preston, S. J., 1998. The late Iron Age and Roman settlement at Elms Farm, Heybridge, Essex, excavations 1993-5: an interim report. *Britannia*, Volume 29, pp. 85-110.

Baker, P., 2011. Collyrium Stamps: An Indicator of Regional Practices in Roman Gaul. *European Journal of Archaeology* , 14(1-2), pp. 158-189.

Barker, P. et al., 1997. *The Baths Basilica Wroxeter: Excavations 1966-90*. London: English Heritage.

Barolsky, P., 2005. Ovid, Bernini, and the Art of Petrification. *Arion Third Series,* 13(2), pp. 149-162.

Bateman, N. C. W., 1998. Public Buildings: some contrasts. *Journal of Roman Archaeology Supplementary Series 24*, pp. 47-58.

Bayley, J., Croxford, B., Henig, M. & Watson, B., 2009. A Gilt-Bronze Arm from London. *Britannia,* Volume 40, pp. 151-162.

Beasley, M., 2006. Roman boundaries, roads and ritual: excavations at the Old Sorting Office, Swan Street, Southwark. *Transactions of the London and Middlesex Archaeological Society,* Volume 57, pp. 23-68.

Bedwin, O. & Orton, C. 1984 The excavation of the eastern terminal of the Devil's Ditch (Chichester Dykes), Boxgrove, West Sussex, 1982, *Sussex Archaeological Collections* 122, 63-74.

Benfield, S. & Garrod, S., 1992. Two recently-discovered Roman buildings in Colchester. *Essex Archaeology and History,* Volume 23, pp. 25-38.

Bennett, P., 1980. Excavations at No.3 Beer Cart Lane. *Archaeologia Cantiana XCV*, pp. 270-272.

Bennett, P., 1987. The Conduit House: The Cathedral Water Supply. In: *Canterbury Excavations Intra- and Extra-Mural Sites, 1949-55 and 1980-84*. Maidstone: Kent Archaeological Society, pp. 25-33.

Bennett, P., 1990. St Augustine's Water Supply. *Canterbury's Archaeology 1988-1989*, p. 13.

Benvenuti, M., Mariotti-Lippi, M., Pallecchi, P. & Sagri, M., 2006. Late-Holocene catastrophic floods in the terminal Arno River (Pisa, Central Italy) from the story of a Roman riverine harbour. *The Holocene,* 16(6), pp. 863-876.

Biddulph, E., 2011a. The Roman Occupation. In: *Winchester, a City in the Making: Archaeological Excavations Between 2002 - 2007 on the Sites of Northgate House, Staple Gardens and the Former Winchester Library, Jewry St*. Oxford: Oxford Archaeology.

Biddulph, E., 2011b. The Roman Town. In: *Winchester, a City in the Making: Archaeological Excavations Between 2002 - 2007 on the Sites of Northgate House, Staple Gardens and the Former Winchester Library, Jewry St*. Oxford: Oxford Archaeology.

Bidwell, P., 1979. *The Legionary Bath-House and Basilica and Forum at Exeter*. Exeter: Exeter City Council and The University of Exeter.

Bird, J., 1996. Frogs from the Walbrook: a cult pot and its attribution. In: J. Bird, M. Hassall & H. Sheldon, eds. *Interpreting Roman London: Papers in Memory of Hugh Chapman*. Oxford: Oxbow Books, pp. 119-127.

Blagg, T. F. C., 1990. Architectural Munificence in Britain: The Evidence of Inscriptions. *Britannia,* Volume 21, pp. 13-31.

Blagg, T. F. C., 1996. Monumental Architecture in Roman London. In: J. Bird, M. Hassall & H. Sheldon, eds. *Interpreting Roman London: Papers in Memory of Hugh Chapman*. Oxford: Oxbow Books, pp. 43-47.

Blair, I., 2002. Roman London's waterworks: the Gresham Steet discoveries. *Current Archaeology,* No. 180 Vol. XV(No 12), pp. 509 - 516.

Blair, I. & Hall, J., 2001. Water management in Roman London. *Minerva,* 12(6), p. 4.

Blair, J., 2005. *The Church in Anglo-Saxon Society*. Oxford: Oxford University Press.

Blockley, K., Blockley, M. & Blockley, P., 1995. *Excavations in the Marlowe Car Park and Surrounding Areas*. Canterbury: Canterbury Archaeological Trust.

Bogaers, J. E., 1979. King Cogidubnus in Chichester: Another Reading of 'RIB' 91. *Britannia,* Volume 10, pp. 243-254.

Boon, G. C., 1974. *Silchester: The Roman Town of Calleva*. London: David and Charles.

Boutwood, Y., 1998. Prehistoric linear boundaries in Lincolnshire and its fringe. In: R. Bewley, ed. *Lincolnshire's Archaeology from the Air, Occasional Papers in Lincolnshire History and Archaeology No.11*. Lincoln: The Society for Lincolnshire History and Archaeology and the RCHME, pp. 29-46.

Bradley, R., 1971. A Field Survey of the Chichester Entrenchments. In: *Excavations at Fishbourne 1961-1969*. London: Society of Antiquaries, pp. 17-37.

Bradley, R., 1990. *The Passage of Arms: Archaeological Analysis of Prehistoric Hoards and Votive Deposits*. Cambridge: Cambridge University Press.

Bradley, R., 1993. *Altering the Earth*. Edinburgh: Society of Antiquaries of Scotland Monograph 8.

Bradley, R., 1998. *The Significance of Monuments: On the shaping of human experience in the Neolithic and Bronze Age*. London and New York: Routledge.

Bradley, R., 2000. *An Archaeology of Natural Places*. London and New York: Routledge.

Bradley, R., 2007. *Making Strange: Monuments and the creation of the earlier prehistoric landscape*. Macclesfield: Windgather Press.

Bradley, R. & Gordon, K., 1988. Human Skulls from the River Thames, their dating and significance. *Antiquity,* 62(236), pp. 503-9.

Branigan, K., 1977. *Gatcombe Roman Villa,* Oxford: British Archaeological Report Series 44.

Breeze, A., 2002. Does Corieltavi Mean 'Army of Many Rivers'?. *The Antiquaries Journal*, Volume 82, pp. 307-309.

Brett, M. & Watts, M., 2008. Excavations at Stepstairs Lane, 2002-3. In: N. Holbrook, ed. *Excavations and Observations in Roman Cirencester 1998-2007*. Cirencester: Cotswald Archaeological Trust, pp. 70 - 83.

Brewer, R. J., 2006. *Caerwent Roman Town*. Cardiff: Welsh Assembly Government.

Brigham, T., 2001a. The Thames and the Southwark waterfront in the pre-Roman period. In: *London Bridge 2000 years of a river crossing*. London: Museum of London Archaeological Service, pp. 8-12.

Brigham, T., 2001b. Roman London Bridge. In: *London Bridge 2000 years of river crossing*. London: Museum of London Archaeology Service, pp. 28-51.

Britton, J., 1812. *The Beauties of England: Lincolnshire*. London: Thomas Maiden.

Brookes, A. C., 1974. Minturnae: The Via Appia Bridge. *AJA*, Volume 78, pp. 41-48.

Brooks, H., Clarke, W., Górniak, M. & Pooley, L., 2009. *CAT Report 347: Roman buildings, the rear face of the Roman town wall and archaeological investigations in Insulas 1a, 1b, 9a and 9b, at the Sixth Form College, North Hill, Colchester, Essex: April 2005-March 2006,* Colchester: Colchester Archaeological Trust.

Brooks, H. & Crummy, P., 1984. Excavations at Middleborough 1979. In: *Colchester Archaeological Report 3: Excavations at Lion Walk Balkerne Lane, and Middleborough, Colchester, Essex*.. s.l.:Colchester Archaeological Trust, pp. 155 - 209.

Broxton, P. & Reece, R., 2011. Cirencester: the interpretation of streams. *Cirencester Archaeological and Historical Society*, Volume 53.

Bruchac, J., 1993. *The Native American Sweat Lodge: History and Legends*. Berkeley, California: Ten Speed Press.

Brucia, M. A., 1990. *Tiber Island in Ancient and Medieval Rome,* Fordham University: Unpublished Dissertation.

Bruneton, H. G., Provansal, M. & Sistach, D., 2001. Geomorphological evidence for fluvial change during the Roman period in the lower Rhone Valley (Southern France). *CATENA*, 45(4), pp. 287-312.

Bruun, C., 1991. *The Water Supply of Ancient Rome. A study of Roman Imperial Administration*. Helsinki: The Finnish Society of Sciences and Letters.

Bruun, C., 1997. Water for Roman Brothels: Cicero "Cael" 34. *Phoenix*, 51(3/4), pp. 364-373.

Bruun, C., 2012. Roman Emperors and legislation on public water use in the Roman Empire: clarifications and problems. *Water History*, 4(1), pp. 11-35.

Bryant, S., 2007. Central places or special places? The origins and development of 'oppida' in Hertfordshire. In: C. Haselgrove & T. Moore, eds. *The Later Iron Age in Britain and Beyond*. Oxford: Oxbow Books, pp. 62-81.

Bryce, J., 1914. *The Ancient Roman Empire and the British Empire in India*. *The Diffusion of Roman and English Law Throughout the World*. London: Oxford University Press.

Buckley, R., 2000. *St. Nicholas Place, Leicester: An Archaeological Assessment of Excavations within the Footprint of the Roman Forum,* Leicester: University of Leicester Archaeology Services Report No. 2000/88.

Budd, P. & Taylor, T., 1995. The Faerie Smith Meets the Bronze Industry: Magic Versus Science in the Interpretation of Prehistoric Metal-Making. *World Archaeology,* 27(1), pp. 133-143.

Burgers, A., 2001. *The Water Supplies and Later Structures of Roman Britain*. BAR British Series 324 ed. Oxford: John and Erica Hodges.

Burke, P., 2009. *Cultural Hybridity*. Cambridge: Polity Press.

Bushe-Fox, J. P., 1916. *3rd Report on the excavations on the site of the Roman town at Wroxeter, Shropshire, in 1914,* London: Society of Antiquaries Research Report 4.

Campbell, J. B., 2000. *The writings of the Roman land surveyors : introduction, text, translation and commentary*. London: Society for the Promotion of Roman Studies.

Cantor, C. H. & Hill, M. A., 1990. Suicide from River Bridges. *Australian and New Zealand Journal of Psychiatry,* 24(3), pp. 337-389.

Carr, G., 2007. Creolising the Body in Early Roman Britain. In: R. Hingley & S. Willis, eds. *Roman Finds: Context and Theory*. Oxford: Oxbow, pp. 106 - 115.

Chadwick, A. M., 2007. Trackways, hooves and memory-days- human and animal movements and memories around the Iron Age and Romano-British rural landscapes of the English north midlands. In: V. Cummings & R. Johnston, eds. *Prehistoric Journeys*. Oxford: Oxbow, pp. 131-152.

Chanson, H., 2004. Hydraulics of Rectangular Dropshafts. *Journal of Irrigation and Drainage Engineering,* 130(6), pp. 523-529.

Chapman, E. M., Hunter, F., Wilson, P. & Booth, P., 2012. I. Sites Explored. *Britannia,* Volume 43, pp. 271-354.

Charles, B. M., Parkinson, A. & Foreman, S., 2000. A Bronze Age ditch and Iron Age settlement at Elms Farm, Humberstone, Leicester. *Transactions of the Leicestershire Archaeological and Historical Society,* Volume 74, pp. 113-220.

Charlesworth, D., 1972. The Glass. In: *Verulamium Excavations Vol I*. London: Society of Antiquaries Research Report , pp. 196 - 215.

Clarke, J. R., 1991. *The Houses of Roman Italy 100 B.C. - A.D. 250: Ritual, Space, and Decoration*. Berkely and Los Angeles: University of California Press.

Clay, P. & Pollard, R., 1994. *Iron Age and Roman Occupation in the West Bridge Area, Leicester: Excavations 1962-1971*., Leicester : Leicester Arts and Museums Service.

Coarelli, F., 1983. *Il Foro Romano: Periodo Arcaico*. Rome: Quasar.

Cole, J., 1837. *The History and Antiquities of Wellingborough in the County of Northampton*. Northampton: Taylor & Son.

Coles, J., 2001. North European Bronzes, Rock Art and Wetlands: Looking for Context and Relations. A Preliminary Study.. In: B. Purdy, ed. *Enduring Records: The Environmental and Cultural Heritage of Wetlands*. Oxford: Oxbow, pp. 148-157.

Collingwood, R. G., 1923. *Roman Britain*. London: Oxford University Press.

Cooper, N. J., 2006. *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda,* Leicester: University of Leicester Archaeology Service.

Cooper, N. J. & Buckley, R., 2003. New Light on Roman Leicester (Ratae Corieltauvorum). In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow, pp. 31-43.

Cordner, W. S., 1946. The Cult of the Holy Well. *Ulster Journal of Archaeology, Third Series*, Volume 9, pp. 24 - 36.

Cowan, C. et al., 2009. *Roman Southwark settlement and economy: Excavations in Southwark*. London: Museum of London Archaeology.

Creighton, J., 2000. *Coins and Power in Late Iron Age Britain*. London and New York: Routledge.

Creighton, J., 2001. The Iron Age–Roman transition. In: S. James & M. Millett, eds. *Britons and Romans: Advancing and Archaeological Agenda*. York: Council for British Archaeology, pp. 4-12.

Creighton, J., 2006. *Britannia*. London and New York: Routledge.

Cromer, E. B., 1910. *Ancient and Modern Imperialism*. London: John Murray.

Crummy, N., 2006. Worshipping Mercury on the Balkerne Hill, Colchester. In: *A Victory Celebration: Papers on the Archaeology of Colchester and Late Iron Age Roman Britain presented to Philip Crummy*. Colchester: Colchester Archaeological Trust, pp. 55-69.

Crummy, N. & Pohl, C., 2008. Small toilet instruments from London: a review of the evidence. In: J. Clark, et al. eds. *Londinium and Beyond: Essays on Roman London and its hinterland for Harvey Sheldon*. York: Council for British Archaeology, pp. 212-224.

Crummy, P., 1984. *Colchester Archaeological Report 3: Excavations at Lion Walk, Balkerne Lane, and Middleborough, Colchester, Essex,* Colchester: Colchester Archaeological Trust.

Crummy, P., 1988. Colchester (Camulodunum/Colonia Victriciensis. In: G. Webster, ed. *Fortress Into City*. London: B.T. Batsford, pp. 24-48.

Crummy, P., 1991. Where was Colchester's public bath-house?. *The Colchester Archaeologist*, Volume 4, pp. 8-12.

Crummy, P., 1997. *City of Victory: the story of Colchester - Britain's first Roman town*. Colchester: Colchester Archaeological Trust.

Crummy, P., 2003. Colchester's Roman town wall. In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow Books, pp. 44-53.

Crummy, P., 2005. The Circus at Colchester (Colonia Victricensis. *JRA*, Volume 18, pp. 267-277.

Cunliffe, B., 1971. *Excavations at Fishbourne 1961-1969*. London: Society of Antiquaries.

Cunliffe, B., 2009. *Iron Age Communities in Britain*. 4th ed. London and New York: Routledge.

Curwen, E. C., 1954. *The Archaeology of Sussex*. 2nd ed. London: Meuthen.

Dark, K. R., 1984. Town or 'Temenos'? A Reinterpretation of the Walled Area of 'Aquae Sulis'. *Britannia*, Volume 15, pp. 254-255.

Darling, M. J. & Jones, M. J., 1988. Early settlement at Lincoln. *Britannia,* Volume 19, pp. 1-57.

Darvill, T., 1987. *Prehistoric Britain*. London: Batsford.

Davies, P. & Robb, J. G., 2002. The Appropriation of the Material Places in the Landscape: The Case of Tufa and Springs. *Landscape Research,* 27(2), pp. 181-185.

de Ruyt, C., 1983. *Macellum marché alimentaire des Romains*. Louvain-la-Neuve: Institut supérieur d'archéologie et d'histoire de l'art, Collège Érasme.

DeLaine, J., 1996. De aquis suis?: The commentarius of Frontinus. In: C. Nicolet, ed. *Les littératures techniques dans l'antiquité romaine. Statut, public et destination, tradition. Entretiens sur l'antiquité classique XLII* . Geneva: Foundation Hardt, pp. 117-145.

DeLaine, J., 1999a. Benefactions and urban renewal: bath buildings in Italy. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology, pp. 67-75.

DeLaine, J., 1999b. Introduction: Bathing and society. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology, pp. 7-17.

Derks, T., 1998. *Gods, Temples and Ritual Practices: The Transformation of Religious Ideas and Values in Roman Gaul*. Amsterdam: Amsterdam University Press.

di Capua, F., 1940. Appunti su l'origine e sviluppo delle terme romane. *Accademia di architettura, lettere e belle arti,* Volume 20, pp. 81-160.

Dilke, O. A. W., 1971. *The Roman Land Surveyors: An Introduction to the Agrimensores*. Newton Abbot: David & Charles.

Disse, M. & Engel, H., 2001. Flood Events in the Rhine Basin: Genesis, Influence, and Mitigation. *Natural Hazards,* Volume 23, pp. 271-290.

Döring, A., 2003. Quellen. In: *Reallexikon der Germanischen Altertumskunde*. 2nd Edition ed. Berlin and New York: Walter de Gruyter, pp. 11-15.

Down, A., 1978. *Chichester Excavations 3*. Chichester: Phillimore.

Down, A., 1988. *Roman Chichester*. Chichester: Philimore.

Draper, J. & Chaplin, C., 1982. Excavations at Wadham House 1968. In: *Dorchester Excavations Volume 1*. Dorchester: The Friary Press Ltd., pp. 2-57.

Drury, P. J., 1988. *The mansio and other sites in the south-east sector of Caesaromagus*. London: Council for British Archaeology Research Report 75.

Duncan-Jones, R., 1990. *Structure and Scale in the Roman Economy*. Cambridge: Cambridge University Press.

Durrani, N., 2004. Tabard Square excavations, Southwark. *Current Archaeology*, Issue 192, pp. 540-547.

Dyson, T., 1978. Two Saxon land grants from Queenhithe. In: *Collectanea Loniniensia: Studies in London Archaeology and history presented to Ralph Merrifield*. London: London and Middlesex Archaeological Society, pp. 200-215.

Edgeworth, M., 2011. *Fluid Pasts: The Archaeology of Flow*. Bristol: Bristol Classical Press.

Edlund-Berry, I., 2006. *Hot, cold, or smelly: the power of sacred water in Roman religion, 400-100 BCE*. Cambridge: Cambridge University Press.

Ellis, P., 2000. Discussion. In: P. Ellis, ed. *The Roman Baths and Macellum at Wroxeter: Excavations by Graham Webster 1955-85*. London: English Heritage, pp. 337-347.

Esmonde-Cleary, S., 2003. Civil Defences in the West under the High Empire. In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow, pp. 72-86.

Esmonde-Cleary, S., 2005. Beating the Bounds: ritual and the articulation of urban space in Roman Britain. In: A.MacMahon & J.Price, eds. *Roman working Lives and Urban Living*. Oxford: Oxbow Books, pp. 1-17.

Evans, C., 1997. Hydraulic Communities: Iron Age Enclosure in the East Anglian Fenlands. In: A. Gwilt & C. Haselgrove, eds. *Reconstructing Iron Age Societies: New Approaches to the British Iron Age*. Oxford: Oxbow Books, pp. 216-227.

Fabbricoti, E., 1976. I bagni nelle prime ville romane. *Cronache Pompeianne,* Volume 2, pp. 29-111.

Fagan, G. G., 1996. Sergius Orata: Inventor of the Hypocaust?. *Phoenix,* 50(1), pp. 56-66.

Fagan, G. G., 1999a. *Bathing in Public in the Roman World*. Michigan: The University of Michigan Press.

Fagan, G. G., 1999b. Interpreting the evidence: Did slaves bathe at the baths?. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing: Proceedings of the First Internation Conference on Roman Baths held at Bath, England, 30 March- 4 April 1992*. Portsmouth, Rhode Island: Journal of Roman Archaeology Supplementary Series Number 37.

Fagan, G. G., 2001. The Genesis of the Roman Public Bath: Recent Approaches and Future Directions. *American Journal of Archaeology,* 105(3), pp. 403-426.

Fagan, G. G., 2006. Bathing for Health with Celsus and Pliny the Elder. *The Classical Quarterly,* 56(1), pp. 190-207.

Farley, J., 2011. The Deposition of Miniature Weaponry in Iron Age Lincolnshire. *PALLAS,* Volume 86, pp. 97-121.

Ferris, I., 2002. *Romano-British Religious Sites in the West Midlands,* Birmingam: Birmingham University.

Ferris, I., 2007. A Severed Head. Prolegomena to a Study of the Fragmented Body in Roman Archaeology and Art. In: R. H. a. S. Willis, ed. *Roman Finds: Context and Theory*. Oxford: Oxbow Books, pp. 116-127.

Field, F. N. & Parker-Pearson, M., 2003. *Excavations at Fiskerton: an Iron Age timber causeway with Iron Age and Roman votive offerings, the 1981 excavations*. Oxford: Oxbow Books.

Finley, M. I., 1973. *The Ancient Economy*. Berkeley and Los Angeles: University of California Press.

Fitzpatrick, A. P., 1984. The Deposition of La Tene Iron Age Metalwork in Watery Contexts in Southern England. In: *Aspects of the Iron Age in Central Southern Britain*. Oxford: Oxford University Committee for Archaeology, Institute of Archaeology., pp. 178-190.

Fox, A., 1948. The early plan and town houses of Silchester. *Antiquity*, Volume 22, pp. 172-178.

Fox, G. E. & St John Hope, W. H., 1893. Excavations on the site of the Roman city at Silchester, Hants. *Archaeologia,* 52(2).

Fox, G. E. & St John Hope, W. H., 1901. Excavations on the site of the Roman city at Silchester, Hants in 1900. *Archaeologia,* 57(2), pp. 229 - 256.

Frere, S. S., 1947. Roman Canterbury. *Medici Society,* Volume 1, p. 12.

Frere, S. S., 1967. *Britannia: A History of Roman Britain*. 1st ed. London: Routledge & Kegan Paul.

Frere, S. S., 1972. *Verulamium Excavations I,* Oxford: Oxford University Press.

Frere, S. S., 1983. *Verulamium Excavations II,* London: Society of Antiquaries of London.

Frere, S. S., 1984. I. Sites Explored. *Britannia,* Volume 15, pp. 266-332.

Frere, S. S., 1987. *Britannia: A History of Roman Britain*. 3rd ed. London: Routledge & Kegan Paul.

Frere, S. S., Hassall, M. W. C. & Tomlin, R. S. O., 1988. I. Sites Explored. *Britannia,* Volume 19, pp. 415-508.

Frere, S. S., Hassall, M. W. C. & Tomlin, R. S. O., 1990. I. Sites Explored. *Britannia,* Volume 21, pp. 303-378.

Frere, S. S. & Tomlin, R. S. O., 1991. I. Sites Explored. *Britannia,* Volume 21, pp. 221-311.

Frier, B. W. & Parker, A., 1970. Roman coins from the River Liri. *NC Seventh Series,* Volume 10, pp. 89-101.

Fulford, M., 2001. Links with the past: pervasive ritual behavior in Roman Britain. *Britannia,* Volume 32, pp. 199-218.

Fulford, M. & Timby, J., 2000. *Late Iron Age and Romn Silchester: Excavations on the site of the Forum-Basilica 1977, 1980 - 86,* London: Britannia Monograph Series No.15.

Fulford, M. & Timby, J., 2001. Timing Devices, Fermentation Vessels, 'Ritual' Piercings? A Consideration of Deliberately 'Holed' Pots from Silchester and Elsewhere. *Britannia,* Volume 32, pp. 293-297.

Gerrard, J., 2011. Wells and Belief Systems at the end of Roman Britain: A case study from Roman London. In: L. Lavan & M. Mulryan, eds. *The Archaeology of Late Anqitue Paganism*. Leiden: Brill, pp. 551-574.

Giles, M. & Joy, J., 2007. Mirrors in the British Iron Age: performance, revelation and power. In: M.Anderson, ed. *The Book of the Mirror: An Interdisciplinary Collection Exploring the Cultural Story of the Mirror*. Cambridge: Cambridge Scholars Press, pp. 16-31.

Going, C. J. & Hunn, J. R., 1999. *Excavations at Boxfield Farm, Chells, Stevenage, Hertfordshire*, Hertford: Hertfordshire Archaeological Trust Report 2.

Goodburn, R., Hassall, M. W. C. & Tomlin, R. S. O., 1979. I. Sites Explored. *Britannia,* Volume 10, pp. 267-356.

Goodman, P. J., 2007. *The Roman City and its Periphery*. London and New York: Routledge.

Goodyear, F. R. D., 1983. Technical Writing. In: E. K. a. W. Clausen, ed. *The Cambridge History of Classical Literature, II*. Cambridge: Cambridge University Press.

Greene, B., 1999. *The Elegant Universe*. New York: W.W. Norton.

Greene, B., 2012. *The Hidden Reality*. London: Penguin Books.

Green, M. J., 1986. *The Gods of the Celts*. Gloucester: Alan Sutton.

Green, M. J., 1989. *Symbol and Image in Celtic Religious Art*. London and New York: Routledge.

Green, M. J., 1992. *Animals in Celtic Life and Myth*. London and New York: Routledge.

Grunthal, G. et al., 2006. Comparative Risk Assessment for the City of Cologne - Storms, Floods, and Earthquakes. *Natural Hazards,* Volume 38, pp. 21-44.

Gunner, W., 1849. A Roman watercourse in Winchester. *Archaeological Journal,* Volume 6, p. 408.

Gurnell, A. M. & Petts, G. E., 2002. Island-dominated landscapes of large floodplain rivers, a European perspective. *Freshwater Biology,* 47(4), pp. 581-600.

Hanson, J. C., 1971. *Muncipal and Military Water Supply and Drainage in Roman Britain,* London: Unpublished PhD Thesis University of London.

Hardie, C., 1965. The Origin and Plan of Roman Florence. *Journal of Roman Studies,* Volume 55, pp. 122-140.

Hartnett, J., 2008. Fountains at Herculaneum: Sacred History, Topography, and Civic Identity. *Rivista di Studi Pompeiani,* Volume 19, pp. 77-89.

Harvey, P. B., 2006. Religion and Memory at Pisaurum. In: C. Schultz & J. P.B. Harvey, eds. *Religion in Republican Italy*. Cambridge: Cambridge University Press, pp. 117-137.

Haselberger, L., Romano, D. G., Dumser, E. A. & Borbonus, D., 2002. *Mapping Augustan Rome*. Portsmouth, Rhode Island: Journal of Roman Archaeology.

Haselgrove, C., 1989. The Later Iron Age in Southern Britain and beyond. In: M. Todd, ed. *Research on Roman Britain 1960-89*. London: Britannia Monograph Series no. 11, pp. 1-18.

Haselgrove, C., 2000. The Character of Oppida in Iron Age Britain. In: *Les Processus d'urbanisation à l'âge du fer*. Glux-en-Glenne: Collection Bibracte 4, pp. 103-110.

Haverfield, F., 1912. *The Romanization of Roman Britain*. Oxford: Clarendon Press.

Haverfield, F., 1913. *Ancient Town-Planning*. Oxford: Clarendon Press.

Hawkes, C. F. C. & Crummy, P., 1995. *Camulodunum 2,* Colchester: Colchester Archaeological Trust.

Hawkes, C. F. C. & Hull., M. R., 1947. *Camulodunum; first report on the excavations at Colchester, 1930-1939*. Oxford: Oxford University Press.

Heard, K., Sheldon, H. & Thompson, P., 1990. Mapping Roman Southwark. *Antiquity,* 64(244), pp. 608-619.

Heidegger, M., 1971. Building Dwelling Thinking. In: *Poetry, Language, Thought*. New York: Harper Collins, pp. 141-161.

Henderson, C., 1988. Exeter (Isca Dumnoniorum). In: G. Webster, ed. *Fortress Into City: The Consolidation of Roman Britain first century AD*. London: B.T. Batsford, pp. 91-120.

Henig, M., 1984. *Religion in Roman Britain*. London: B.T. Batsford.

Henig, M., 1993. *Corpus signorum imperii Romani: Great Britain.Vol. I, Fasc. 7, Roman sculpture from the Cotswold region, with Devon and Cornwall*, Oxford: Oxford University Press.

Henig, M., 1995. *The Art of Roman Britain*. London and New York: Routledge.

Henig, M., 1998. The temple as a bacchium or sacrarium in the fourth century. In: *The Temple of Mithras London: Excavations by W.F. Grimes and A. Williams at the Walbrook*. London: English Heritage Archaeological Report 12, pp. 230-235.

Henig, M. & Webster, G., 2002. The Venus (or Nymph) of the fountain. In: J. Chadderton, ed. *The Legionary Fortress at Wroxeter: excavations by Graham Webster 1955-1985*. London: English Heritage, pp. 135-136.

Herbert, N., 1988. Anglo-Saxon Gloucester c. 680–1066. In: N. Herbert, ed. *A History of the County of Gloucester: Volume 4 - The City of Gloucester*. Oxford: Oxford University Press, pp. 5-12.

Herget, J. & Meurs, H., 2010. Reconstructing peak discharges for historic flood levels in the city of Cologne, Germany. *Global and Planetary Change*, 70(1-4), pp. 108-116.

Hill, C., Millett, M. & Blagg, T., 1980. *The Roman Riverside Wall and Monumental Arch in London: Excavations at Baynard's Castle, Upper Thames Street, London, 1974-76*, London: London and Middlesex Archaeological Society.

Hill, J. D., 1989. Re-Thinking The Iron Age. *Scottish Archaeological Review*, Volume 6, pp. 16-23.

Hill, J. D., 1995a. *Ritual and Rubbish in the Iron Age of Wessex: A study on the formation of a specific arhcaeological record. British Archaeological Reports British Series 242*. Oxford: Tempus Reparatum.

Hill, J. D., 1995b. The Pre-Roman Iron Age in Britain and Ireland (ca. 800 B.C. to A.D. I00): An Overview. *Journal of World Prehistory*, 9(1), pp. 47-98.

Hill, J. D., 2011. How Did British Middle and Late Pre-Roman Iron Age Societies Work (if they did)? In T. Moore and X. Armada, eds. Atlantic Europe in the First Millenium B.C. Oxford: Oxford University Press.

Hill, J. & Rowsome, P., 2011. *Roman London and the Walbrook Stream crossing. Excavations at 1 Poultry and vicinity, City of London : Part II*. London: MoLA.

Hingley, R., 1982. Recent Discoveries of the Roman Period at Noah's Ark Inn, Frilford, South Oxfordshire. *Britannia*, Volume 13, pp. 305-309.

Hingley, R., 2000. *Roman Officers and English Gentlemen: the Imperial Origins of Roman Archaeology*. London and New York: Routledge.

Hingley, R., 2001. Images of Rome. In: R. Hingley, ed. *Images of Rome: perceptions of ancient Rome in Europe and the United*. Portsmouth: Journal of Roman Archaeology Supplementary , pp. 7-22.

Hingley, R., 2005. *Globalizing Roman Culture: Unity, Diversity and Empire*. London and New York: Routledge.

Hingley, R., 2006. The Deposition of Iron Objects in Britain During the Later Prehistoric and Roman Periods: Contextual Analysis and the Significance of Iron. *Britannia,* Volume 37, pp. 213-257.

Hingley, R., 2010. *Hadrian's Wall - A Life*. Oxford: Oxford University Press.

Hodder, I. & Hassal, M., 1971. The Non-Random Spacing of Romano-British Walled Towns. *Man,* 6(3), pp. 391-407.

Hodder, M. A. & Barfield, L. H., 1987. Burnt mounds as Saunas. *Antiquity,* Volume 61, pp. 370-379.

Hodge, T., 1992. *Roman Aqueducts and Water Supply*. London: Duckworth.

Holbrook, N., 1998. Shops V.1 - V.5 in Insula V: Excavations directed by J.S. Wacher. In: N. Holbrook, ed. *Cirencester the Roman Town Defences, Public Buildings and Shops*. Cirencester: Cotswald Archaeological Trust, pp. 189 - 209.

Holbrook, N. & Salvatore, J. P., 1998. The Street System. In: N. Holbrook, ed. *Cirencester The Roman Town Defences, Public Buildings and Shops*. Cirencester: Cotswold Archaeological Trust, pp. 19 - 31.

Holland, L. A., 1961. *Janus and the Bridge*. Rome: The American Academy in Rome.

Hooker, E. M., 1963. The Significance of Numa's Religious Reforms. *Numen,* 10(Fasc 2), pp. 87-132.

Hope, W. H., 1897. Excavations on the site of the Roman city at Silchester, Hants, in 1896. *Archaeologia,* 55(2), pp. 409-430.

Hopkins, J., 2007. The Cloaca Maxima and the Monumental Manipulation of Water in Archaic Rome. *The Waters of Rome,* Volume 4, pp. 1-15.

Hopkins, J., 2012. The 'Sacred Sewer': Tradition and Religion in the Cloaca Maxima . In: M. Bradley, ed. *Rome, Pollution and Propriety: Dirt, Disease and Hygiene in the Eternal City from Antiquity to Modernity*. Cambridge : Cambridge University Press, pp. 81-102.

Hoshi, K., Shimizu, Y. & Masujin, K., 2006. Study on Flow at a River Confluence. In: G. Parker & M. García, eds. *River, Coastal and Estuarine Morphodynamics Proceedings of the 4th IAHR Symposium on River, Coastal and Estuarine Morphodynamics* . Philadelphia: Taylor and Francis, pp. 395-401.

Hull, M. R., 1958. *Roman Colchester,* Oxford: Report of the Research Committee of the Society of Antiquaries of London 20.

Hurst, H., 1988. Gloucester (Glevum). In: G. Webster, ed. *Fortress Into City: The Consolidation of Roman Britain*. London: B.T. Batsford, pp. 48-74.

Ingate, J., 2009. *A Study into the Significance Islands had in the establishment of Roman towns in Britain and Northern Gaul*. University of Kent: Unpublished M.A. Dissertation.

Ingold, T., 2000. *The Perception of the Environment: Essays in livelihood, dwelling and skill*.. London and New York: Routledge.

Isserlin, R. M. J., 1998. A Spirit of Improvement? Marble and the culture of Roman Britain. In: *Cultural Identity in the Roman Empire*. London and New York: Routledge, pp. 125-156.

Jackson, R., 1990. Water and Spas in the Classical World. *Medical History*, pp. 1-13.

Jackson, R., 1999. Spas, waters, and hydrotherapy in the Roman world. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology Supplementary Series 37, pp. 107-117.

James, H., 1993. Roman Carmarthen. In: *Roman Towns: The Wheeler Inheritance a review of 50 years' research*. York: Council for British Archaeology, pp. 93-98.

Jarman, C., 1997. Christ Church College. *Canterbury's Archaeology 1995-1996*, pp. 2-5.

Johnson, A., 1983. *Roman Forts of the 1st and 2nd Centuries AD*. London: Palgrave Macmillan.

Jones, A. H. M., 1974. *The Roman Economy*. *Studies in Ancient Economic and Administrative History*. London: Blackwell.

Jones, F., 1992. *The Holy Wells of Wales*. Cardiff: University of Wales Press.

Jones, M. J., 2003a. The Colonia Era. In: D. Stocker, ed. *City by the Pool*. Oxford: Oxbow Books, pp. 56-140.

Jones, M. J., 2003b. Sources of Effluence: Water through Roman Lincoln. In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow Books, pp. 111-128.

Jones, M. J. & Stocker, D., 2003. Settlement in the Lincoln Area in the Prehistoric Era. In: D. Stocker, ed. *The City by the Pool*. Oxford: Oxbow Books.

Jones, M. J., Stocker, D. & Vince, A., 2003. *The City by the Pool: Assessing the archaeology of the city of Lincoln*. Oxford: Oxbow Books.

Joyce, J. G., 1881. Third account of excavations at Silchester. *Archaeologia,* 57(1), pp. 87 - 112.

Kaika, M., 2005. *City of Flows: Modernity, Nature and the City*. London and New York: Routledge.

Kaika, M. & Swyngedouw, E., 2000. Fetishizing the modern city: the phantasmagoria of urban technological networks. *International Journal of Urban and Regional Research,* Volume 24, p. 120–138.

Kaiser, A., 2000. *The Urban Dialogue. An analysis of the use of space in the Roman city of Empúries, Spain*. Oxford: Archaeopress BAR International Series 901.

Kamash, Z., 2008. What lies beneath? Perceptions of the ontological paradox of water. *World Archaeology,* 40(2), pp. 224-237.

Kamash, Z., 2012. An exploration of the relationship between shifting power, changing behavior and new water technologies in the Roman Near East. *Water History,* 4(1).

Keen, L., 1977. Dorset Archaeology in 1977. *Dorset Natural History and Archaeology Society,* Volume 99, pp. 120-126.

Kenyon, K. M., 1948. *Excavations at the Jewry Wall Site, Leicester,* London: Society of Antiquaries.

Keppie, L., 1983. *Colonisation and Veteran Settlement in Italy, 47-14 B.C.*. Rome: British School at Rome.

Kipling, R., 1906. *Puck of Pook's Hill,* reprinted 1989. London: Macmillan.

Kipling, R., 1911. *The Roman Centurion's Song*, reprinted 2001. Ware: Wordsworth Poetry Library.

King, A., 2001. Gallic symbols in french politics and culture. In: R. Hingley, ed. *Images of Rome: Perceptions of ancient Rome in Europe and the United States in the modern age*. Portsmouth, Rhode Island: Journal of Roman Archaeology, pp. 113-125.

King, A. & Soffe, G., 2001. Internal Organisation and Deposition at the Iron Age Temple on Hayling Island, Hampshire. In: J. Collis, ed. *Society and Settlement in Iron Age Europe*. Sheffield: J.R. Collis, pp. 111-124.

Kleijn, G. D., 2001. *The Water Supply of Ancient Rome*. Amsterdam: J.C. Gieben.

Knüsel, C. J. & Carr, G. C., 1995. On the significance of the crania from the River Thames and its tributaries. *Antiquity,* 69(262), pp. 162-169

Kowalewski, P., 2006. Flussgötter und ihre Attribute auf antiken Münzen. In: G. Wiplinger, ed. *Cura Aquarum in Ephesus*. Leuven: Peeters.

Lambot, B., 1998. 'Les Morts d'Acy Romance (Ardennes) à LaTène Finale: Pratiques funéraires,aspects religieuses et hiérarchie sociale. In: G. Leman-Delerive, ed. *Les Celtes: rites funéraires en Gaule du Nord entre le 6' et le 1 ", siècle av J.-C. Namur,1998*. pp. 75-87.

Larsson, L., 2001. South Scandinavian Wetland Sites and Finds from the Mesolithic and the Neolithic. In: B. Purdy, ed. *Enduring Records: The Environmental and Cultural Heritage of Wetlands*. Oxford: Oxbow, pp. 158-171.

Laurence, R., 1994a. Modern Ideology and the creation of ancient town planning. *European Review of History: Revue europeenne d'histoire,* 1(1), pp. 9-18.

Laurence, R., 1994b. *Roman Pompeii Space and Society*. London and New York: Routledge.

Laurence, R., 2009. *Roman Passions*. *A History of Pleasure in Imperial Rome*. London and New York: Continuum.

Laurence, R., Esmonde-Cleary, S. & Sears, G., 2011. *The City in the Roman West*. Cambridge : Cambridge University Press.

Lees, D., 1988. Excavations in the Walbrook Valley. *London Archaeologist,* Volume 6.

Leveau, P., 1991. Research on Roman Aqueducts in the past Ten Years. In: T. Hodge, ed. *Future Currents in Aqueduct Studies*. Leeds: Francis Cairns Publications Ltd, pp. 149-162.

Leveau, P., 1996. The Barbegal water-mill in its environment: archaeology and the economic and social history of antiquity. *Journal of Roman Archaeology,* Volume 9, p. 137–53.

Lewis, M. J. T., 1984. Our debt to Roman Engineering: the water supply of Lincoln to the present day. *Industrial Archaeological Review,* 7(1), pp. 57-73.

Liversidge, J., Smith, D. J., Stead, I. M. & Rigby, V., 1973. Brantingham Roman Villa: Discoveries in 1962. *Britannia,* Volume 4, pp. 84-106.

Livi, V., 2006. Religious locales in the territory of Minturnae: aspects of Romanization. In: C. Schultz & J. P.B. Harvey, eds. *Religion in Republican Italy*. Cambridge: Cambridge University Press, pp. 90-117.

Lloris, F. B., 2006. An irrigation decree from Roman Spain: the Lex Rivi Hiberiensis. *Journal of Roman Studies,* Volume 96, pp. 147-197.

Lomas, K. & Cornell, T., 2003. *Bread and the Circuses: Eurgetism and Municipal Patronage in Roman Italy*. London and New York: Routledge .

Lucas, C. P., 1912. *Greater Rome and Greater Britain*. Oxford: Clarendon Press.

Lyne, M., 1999. The Pottery from the Lower Slope. In: R. Niblett, ed. *The Excavation of a Ceremonial Site at Folly Lane, Verulamium*. London: Britannia Monograph 14, pp. 233 - 307.

Macdonald, P. & Young, T., 1995. Llyn Cerrig Bach: Field Survey 1995. *Archaeology in Wales,* Volume 35, pp. 20-24.

MacGregor, A., 1976. *Finds from a Roman Sewer System and Adjacent Bulding in Church Street 17/1,* York: Council for British Archaeology.

MacGregor, A., 1978. *Roman Finds from Skeldergate and Bishophill 17/2,* London: Council for British Archaeology.

Mackie, N., 1990. Urban Munificence and the Growth of Urban Consciousness. In: T. Blagg & M. Millett, eds. *The Early Roman Empire in the West*. Oxford: Oxbow Books, pp. 179-193.

Magilton, J., 2003. The Defences of Roman Chichester. In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow Books, pp. 156-168.

Malacrino, C. G., 2010. *Constructing the Ancient World. Architectural Techniques of the Greeks and Romans*. Los Angeles: J. Paul Getty Trust.

Manning, W. H., 1985. *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*. London: British Museum Publications.

Manning, W. H., 2003. The Defences of Caerwent. In: *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow Books, pp. 168-184.

Mann, J. C., 1996. *Britain and the Roman Empire*. Aldershot: Variorum.

Marsden, P., 1975. The excavation of a Roman palace site in London 1961-72. *Transactions of the London and Middlesex Archaeological Society,* Volume 26, pp. 36-41.

Marsden, P., 1987. *The Roman Forum Site In London: Discoveries before 1985*. London: Museum of London.

Marsh, G. & West, B., 1981. Skullduggery in Roman London?. *Transactions of the London and Middlesex Archaeological Society,* Volume 32, pp. 86-102.

Mattingly, D., 2006. *An Imperial Possession: Britain in the Roman Empire 54 BC - AD 409*. London: Penguin Books.

Mattingly, D., 2008. 'Urbanism, epigraphy and identity in the towns of Britain under Roman Rule. In: H. M. Schellenberg, V. E. Hirschmann & A. Krieckhaus, eds. *A Roman Miscellany: Essays in Honour of Anthony R. Birley on His Seventieth Birthday*. Gdansk, Poland: Akanthina, pp. 53-71.

May, J., 1976. *Prehistoric Lincolnshire*. Lincoln: The History of Lincolnshire Committee

May, J., 1988. Iron Age Lincoln? The Topographical and Settlement Evidence Reviewed. In: M. J. Darling & M.J. Jones. Early settlement at Lincoln. *Britannia,* Volume 19, pp. 50-57.

McFarlane, F. A., 2003. *The decorative use of water at Hadrian's Villa, Tivoli and its ancient Roman context,* University of London: PhD Thesis.

Medlycott, M., 2011. *The Roman Town of Great Chesterford*, East Anglian Archaeology Series, Essex County Council.

Merrifield, R., 1983. *London: City of the Romans*. London: Guild Publishing.

Merrifield, R., 1987. *The Archaeology of Ritual and Magic*. London: B.T. Batsford.

Merrifield, R. & Hall, J., 2008. In its depths what treasures - the nature of the Walbrook stream valley and the Roman metalwork found therein. In: J. Clark, et al. eds. *Londinium and Beyond: Essays on Roman London and its hinterland for Harvey Sheldon*. York: Council for British Archaeology , pp. 121-127.

Merrill, E. T., 1901. Some Observations on the Arch of Trajan at Beneventum. *Transactions and Proceedings of the American Philological Association,* Volume 32, pp. 43-63.

Miller, L., Schofield, J. & Rhodes, M., 1986. *The Roman Quay at St Magnus House, London: Excavations at New Fresh Wharf, Lower Thames Street London 1974-78,* London: London and Middlesex Archaeological Society.

Millett, M., 1990. *The Romanization of Britain*. Cambridge: Cambridge University Press.

Millett, M., 1996. Characterising Roman London. In: J. Bird, M. W. C. Hassall & H. Sheldon, eds. *Interpreting Roman London: Papers in Memory of Hugh Chapman*. Oxford: Oxbow Books, pp. 33-7.

Millett, M., 2001. Approaches to Urban Societies. In: S. J. M. Millett, ed. *Britons and Romans: Advancing and Archaeological Agenda*. York: Council for British Archaeology, pp. 60-67.

Millett, M., 2006. Characterizing Shiptonthorpe. In: M. Millett, ed. *Shiptonthorpe, East Yorkshire: Archaeological Studies of a Romano-British Roadside Settlement*. Leeds: Yorkshire Archaeological Society and East Riding Archaeological Society, pp. 305-318.

Millett, M., 2007. Roman Kent in J.H. Williams, (ed.) The Archaeology of Kent to A.D. 800. Woodbridge: Boydell Press, pp. 135-84

Milne, G., 1985. *The Port of Roman London*. London: B.T. Batsford.

Milne, G., 1992. *From Roman Basilica to medieval market*. London: HMSO.

Milne, G., 1996. A Palace Disproved: reassessing the provincial governor's presence in 1st century London. In: J. Bird, M. Hassall & H. Sheldon, eds. *Interpreting Roman London: Papers in Memory of Hugh Chapman* . Oxford: Oxbow Books, pp. 49-55.

Mingazzini, P., 1938. Il santuario della dea Marica alle foci del Garigliano. *MontAnt,* Volume 32, pp. 693-981.

Mommsen, T., 1885. *Römische Geschichte*. Leipzig: Reimer & Hirsel.

Morel, J.-P., 1988. Artisanat et colonisation dans l'italie romaine aux IV et III siècles av. J-C. *Dialoghi di archeologia,* Volume 6, pp. 49-63.

Morley, N., 2004. *Theories, Models and Concepts in Ancient History*. London and New York: Routledge.

Murphy, T. M., 2004. *Pliny the Elder's Natural History: The Empire in the Encyclopedia*. Oxford: Oxford University Press.

Murray, M. L., 1995. Viereckschanzen and feasting: socio-political ritual in Iron Age Central Europe. *Journal of European Archaeology,* Volume 3, pp. 125-151.

Myers, S., 2011. *Walking on Water: London's Hidden Rivers Revealed*. Stroud: Amberley Publishing.

Neal, D. S., 1974. *The Excavation of the Roman Villa at Gadebridge Park, Hemel Hempstead 1963-8*. London: Society of Antiquries of London.

Neal, D. S., Wardle, A. & Hunn, J., 1990. *Excavation of the Iron Age, Roman, and medieval settlement at Gorhambury, St Albans*. London: English Heritage.

Niblett, R., 1985. *Sheepen: An early Roman industrial site at Camulodunum*. London: Council of British Archaeology.

Niblett, R., 1993. Verulamium since the Wheelers. In: S. Greep, ed. *Roman Towns: The Wheeler Inheritance*. York: Council for British Archaeology, pp. 78-92.

Niblett, R., 1999. *The Excavation of a Ceremonial Site at Folly Lane, Verulamium*.. London: Society for the Promotion of Roman Studies.

Niblett, R., 2001. *Verulamium: The Roman City of St Albans*. Stroud: Tempus.

Niblett, R., 2005. Roman Verulamium. In: R. Niblett & I. Thompson, eds. *Alban's Buried Towns: An Assessment of St Albans' Archaeology up to AD 1600*. Oxford: Oxbow, pp. 41 - 166.

Niblett, R. & Thompson, I., 2005. *Alban's Buried Towns: An Assessment of St Albans' Archaeology up to AD 1600*. Oxford: Oxbow Books.

Nielsen, I., 1993. *Thermae et Balnea*. 2nd ed. Aarhus: Aarhus University Press.

Nriagu, J. O., 1983. *Lead and Lead Poisoning in Antiquity*. New York: Wiley & Sons Inc.

O'Connor, C., 1993. *Roman Bridges*. Cambridge: Cambridge University Press.

Oliver, M., 1992. Excavation of an Iron Age and Romano-British settlement site at Oakridge, Basingstoke, Hampshire 1965-6. *Proceedings of the Hampshire Field Club and Archaeological Society*, Volume 48, pp. 55-94.

Osawa, T., Mitsuhashi, H. & Ushimaru, A., 2010. River confluences enhance riparian plant species diversity. *Plant Ecology*, 209(1), pp. 95-108.

Osterkamp, W. R., 1998. Processes of fluvial island formation, with examples from Plum Creek, Colorado and Snake River, Idaho. *Wetlands*, 18(4), pp. 530-545.

Ottoway, P., 1993. *Roman York*. London: B.T. Batsford.

Ottoway, P., 2010. *Heslington East, York: A Second Addendum to the Archaeological Remains Management Plan,* York: PJO Archaeology.

Oubiña, C. P. & Fernández, I. C., 2004. Iron Age Archaeology of the Northwest Iberian Peninsula. *Journal of Interdisciplinary Celtic Studies*, Volume 6, pp. 1-72.

Palmer, M. & Palmer, N., 2000. *The Spiritual Traveller: England, Scotland and Wales*. London: ICOREC.

Parker-Pearson, M., 1999. *The Archaeology of Death*. Stroud: Sutton.

Parker-Pearson, M., 2003. Regional social dynamics in later prehistoric eastern England. In: N. Field & M. P. Pearson, eds. *Fiskerton: An Iron Age Timber Causeway with Iron Age and Roman Votive Offerings - the 1981 Excavations*. Oxford: Oxbow, pp. 189-195.

Patterson, J. R., 2006. *Landscapes and Cities: Rural Settlement and Civic Transformation in Early Imperial Italy*. Oxford: Oxford University Press.

Perring, D., 1991. *Roman London*. London: Seaby.

Perry, B. T., 1966. Some Recent Discoveries in Hampshire. In: A. Thomas, ed. *Rural Settlement in Roman Britain*. London: Council for British Archaeology, pp. 39-42.

Petch, D. F., 1962. A Roman Inscription, Nettleham. *Lincolnshire Architecture and Archaeological Society Reports,* 9(2), pp. 94-97.

Petts, D., 1998. Landscape and Cultural identity in Roman Britain. In: J. Berry & R. Laurence, eds. *Cultural Identity in the Roman Empire*. London and New York: Routledge, pp. 79-94.

Petts, D., 2003. Votive Deposits and Christian Practice in Late Roman Britain. In: M. Carver, ed. *The Cross Goes North: Processes of Conversion in Northern Europe, Ad 300-1300*. York: York Medieval Press, pp. 109-119.

Phillips, T., 2004. Seascapes and Landscapes in Orkney and Northern Scotland. *World Archaeology,* 35(3), pp. 371-384.

Pollard, J., 1996. Iron Age Riverside Pit Alignments at St. Ives, Cambridgeshire. *Proceedings of the Prehistoric Society*, Volume 62, pp. 93-116.

Pollard, R., 1998. A Ceramic Cult Figure from Leicester. *Britannia,* Volume 29, pp. 353-356.

Pompeiano, O., 1999. Roman Ruins in the Basement of the Institute of Physiology of the University of Pisa. *Archives Italiennes de Biologie,* Volume 137, pp. 227-234.

Potter, T. W. & Johns, C., 1992. *Roman Britain*. Berkely and Los Angeles: The University of California Press.

Poux, M., 2000. Espaces votifs – espaces festifs. Banquets et rites de libation en contexte de sanctuaires et d'enclos. *Revue Archéologique de Picardie*, 1(2), pp. 217-231.

Pratt, S., 2009. Two 'New' Town Gates, Roman Buildings and an Anglo-Saxon Sanctuary at St. Mildred's Tannery, Canterbury. *Archaeologia Cantiana* , Volume CXXIX, pp. 225-238.

Price, M. J. & Trell, B. L., 1977. *Coins and their Cities - Architecture on the ancient coins of Greece, Rome and Palestine*. London: Vecchi.

Pryor, F., 1992. Discussion: the Fengate/Northey landscape. *Antiquity,* 66(251), pp. 518-531.

Pryor, F., 2001. *The Flag Fen Basin: Archaeology and Environment of a Fenland Landscape,* Swindon: English Heritage.

Purcell, N., 1990. The Creation of a Provincial Landscape: the Roman Impact on Cisalpine Gaul. In: T. Blagg & M. Millett, eds. *The Early Roman Empire in the West*. Oxford: Oxbow Books, pp. 7-29.

Purcell, N., 1996. Rome and the Management of Water: environment, culture and power. In: G. Shipley & J. Salmon, eds. *Human Landscapes in Classical Antiquity: Environment and Culture:*. London and New York: Routledge, pp. 180-212.

Putnam, B., 1997. The Dorchester Roman Aqueduct. *Current Archaeology,* 154(10).

Qualmann, K. E., 1991. Archaeological Potential and Research Design. In: G. D. Scobie, J. M. Zant & R. Whinney, eds. *The Brooks, Winchester, A Preliminary Report on the Excavations 1987-88*. Winchester: Winchester Museums Service.

Quinn, P., 1999. *Monuments in the Landscape, Volume VI: the holy wells of Bath and Bristol region*. Hertfordshire: Logaston Press.

Ralph, S., 2007. *Feasting and Social Complexity in Later Iron Age East Anglia*. Oxford: BAR (British Series) 451.

Rattue, J., 1995. *The Living Stream: Holy Wells in Historical Context*. Woodbridge: The Boydell Press.

Reece, R., 2003. The Siting of Roman Corinium. *Britannia* , Volume 34, pp. 276-280.

Rhodes, M., 1991. The Roman coinage from London Bridge and the development of the City and Southwark. *Britannia,* Volume 19, pp. 179-190.

Ricotti, S. P., 1987. The Importance of Water in Roman Garden Triclinia. In: E. MacDougall, ed. *Ancient Roman Villa Gardens*. Washington D.C.: Dumbarton Oaks, pp. 137-184.

Rivet, A. L. F., 1958. *Town and Country in Roman Britain*. London: Hutchinson University Library.

Rivet, A. L. F. & Smith, C., 1979. *The Place Names of Roman Britain*. London: B.T. Batsford.

Robinson, D., 2009. Storms of the Wolds. In: D. N. Robinson, ed. *The Lincolnshire Wolds*. Oxford: Oxbow Books, pp. 75-76.

Roca, M., Martín-Vide, J. P. & Moreta, P. J. M., 2009. Modelling a Torrential Event in a River Confluence. *Journal of Hydrology,* 364(3-4), pp. 207-215.

Rodgers, R. H., 2009. *Frontinus - De Aquaeductu Urbis Romae*. Cambridge: Cambridge University Press.

Rogers, A., 2008. *Roman Towns as Meaning-Laden Places: reconceptualising the decline of towns in Roman Britain,* Durham: Unpublished PhD Thesis University of Durham.

Rogers, A., 2011a. *Late Roman Towns in Britain: rethinking change and decline*. New York: Cambridge University Press.

Rogers, A., 2011b. Reimagining Roman Ports and Harbours: the port of Roman London and Waterfront Archaeology. *Oxford Journal of Archaeology*, 30(2), pp. 207-225.

Rogers, A. & Hingley, R., 2010. Edward Gibbon and Francis Haverfield: the traditions of imperial decline. In: M. Bradley, ed. *Classics and Imperialism in the British Empire*. Oxford : Oxford University Press, p. 189–209.

Rook, T., 2002. *Roman Baths in Britain*. 2nd ed. Buckinghamshire: Shire Publications.

Ross, A., 1968. Shafts, Pits, Wells - Sanctuaries of the Belgic Britons. In: J. Coles, ed. *Studies in Ancient Europe: Essays presented to Stuart Piggott*. Leicester: Leicester University Press, pp. 255 - 285.

Ross, A. & Feachem, R., 1976. Ritual Rubbish? - The Newstead Pits. In: J. Megaw, ed. *To Illustrate the monuments: Essays on Archaeology presented to Stuart Piggott*. London: Thames and Hudson, pp. 229 - 239.

Rostovtzeff, M. I., 1926. *The Social and Economic History of the Roman Empire*. Oxford: Clarendon Press.

Rowsome, P., 1998. The Development of the Town Plan of early Roman London. *Journal of Roman Archaeology Supplementary Series 24*, pp. 35-47.

Rowsome, P., 1999. The Huggin Hill Baths and Bathing in London. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology, pp. 262-278.

Rowsome, P., 2008. Mapping Roman London: Identifying its Urban Patterns and Interpreting their Meaning. In: J. Clark, et al. eds. *Londinium and Beyond: Essays on Roman London and its hinterland for Harvey Sheldon*. York: Council for British Archaeology.

Rowsome, P., 2011. Water supply and drainage. In: J. Hill & P. Rowsome, eds. *Roman London and the Walbrook Stream crossing. Excavations at 1 Poultry and vicinity, City of London : Part II*. London: Museum of London Archaeology, pp. 412-413.

Rowsome, P., Burch, M., Lemos, C., Wellman, T., Chopping, A. & Hirst, S. *Londinium: A New Map and Guide to Roman London*. London: MoLA.

Ruegg, S. D., 1995. *Underwater investigations at Roman Minturnae*. Jonsered: Paul Åströms Förlag.

Rykwert, J., 1976. *The Idea of a Town: The Anthropology of Urban Form in Roman, Italy and the Ancient World*. London: Faber Faber.

Rylatt, J. & Bevan, B., 2007. Realigning the World: pit alignments and their landscape context. In: C. Haselgrove & T. Moore, eds. *The Later Iron Age in Britain and Beyond*. Oxford: Oxbow Books, pp. 219-234.

Salway, P., 1981. *Roman Britain*. Oxford: Oxford University Press.

Salyer, W. C., 1947. Swamp Goddess. *The Classical Journal*, 42(7), pp. 407-413.

Sanders, K., 2009. *Bodies in the Bog and the Archaeological Imagination*. Chicago: University of Chicago Press.

Sauer, E. W., 2011. Religious Rituals at Springs. In: L. Lavan & M. Mulryan, eds. *The Archaeology of Late Antique Paganism*. Leiden: Brill, pp. 505-550.

Sauer, E. W., 2011. Religious Rituals at Springs. In: L. Lavan & M. Mulryan, eds. *The Archaeology of Late Antique Paganism*. Leiden: Brill, pp. 505-550.

Saunders, C., 1974. Roman bath house, Branch Road, St Albans'. *Hertfordshire Archaeological Review,* Volume 9, pp. 166-168.

Saunders, C., 1975. Notes on excavations at the Six Bells and the Branch Road bath house in 1974. *Britannia*, Volume 6, pp. 258-260.

Scarpino, P. V., 1997. *Large Floodplain Rivers as Human Artifacts: A Historical Perspective on Ecological Integrity,* s.l.: Special Report for the US Geological Survey.

Schumaker, L., 2008. Slimes and Death-Dealing Dambos: Water, Industry and the Garden City on Zambia's Copperbelt. *Journal of Southern African Studies*, 34(4), pp. 823-840.

Scullard, H. H., 1981. *Festivals and ceremonies of the Roman Republic*. London: Thames and Hudson.

Seeley, F. & Wardle, A., 2009. Religion and Ritual. In: *Roman Southwark Settlement and Economy: Excavations in Southwark 1973-91*. London: Museum of London Archaeology, pp. 143-157.

Shepherd, J. D., 1998. *The Temple of Mithras, London: Excavations by W.F. Grimes and A. Williams at the Walbrook*, Swindon: English Heritage.

Shillam, M., 2003. River Gods on Roman Coins. *Australasian Coin and Banknote Magazine*, 6(10).

Slayman, A. L. & Lattanzi, G., 1999. A Cache of Vintage Ships: Nine Roman Vessels Surface in Downtown Pisa. *Archaeology*, 52(4), pp. 36-39.

Smith, C. R., 1841. On the Roman coins discovered in the bed of the Thames, near London Bridge from 1834 to 1841. *Numismatic Chronicle,* Volume 4, pp. 147-168, 187-194.

Smith, D. J., 1984. 'The Moasaic of the Wrestling Cupids' in Room 7. In: P. Crummy, ed. *Colchester Archaeological Report 3: Excavations at Lion Walk, Balkerne Lane, and Middleborough, Colchester, Essex*.. Colchester: Colchester Archaeological Trust, pp. 168 - 172.

Smith, J. R., 1922. *Springs and Wells in Greek and Roman Literature: Their Legends and Locations*. New York and London: G.P. Putnams and Sons.

Smith, T., 2009. Restoring Biodiversity. In: D. N. Robinson, ed. *The Lincolnshire Wolds*. Oxford: Oxbow Books, pp. 103-114.

Spain, R., 2004. *A Possible Roman Tide Mill - Kent Archaeology Paper 5*. Maidstone: Kent Archaeological Society.

Spencer, D., 2010. *Roman Landscape: Culture and Identity*. Cambridge: Cambridge University Press.

Stead, I. M., Bourke, J. B. & Brothwell, D. R., 1986. *Lindow Man: The Body in the Bog*. London: Published for the Trustees of the British Museum by British Museum Publications.

Steane, K. et al., 2006. *The Archaeology of The Upper City and Adjacent Suburbs*. Oxford: Oxbow Books.

Steane, K. et al., 2001. *The Archaeology of Wigford and the Brayford Pool*. Oxford: Lincoln Archaeological studies 3.

Stephens, G. R., 1985a. Civic Aqueducts in Britain. *Britannia,* Volume 16, pp. 197-208.

Stephens, G. R., 1985b. Military aqueducts in Roman Britain. *Archaeological Journal,* Volume 142, pp. 216-236.

Stirling, L. M., 2001. The East Baths and their industrial re-use in late antiquity: 1992 excavations. In: *Leptiminus (Lamta) Report No. 2 The East Baths, Cemeteries, Kilns, Venus Mosaic, Site Museum and other studies*. Portsmouth, Rhode Island: Journal of Roman Archaeology Supplementary Series 41, pp. 29-73.

Stocker, D., 1998. A Hitherto Unidentified Image of the Mithraic God Arimanius at Lincoln?. *Britannia*, Volume 29, pp. 359-363.

Stocker, D. & Everson, P., 2003. The Straight and Narrow Way. Fenland causeways and the conversion of the landscape in the Witham Valley, Lincolnshire. In: M. Carver, ed. *The Cross Goes North. Processes of Conversion in Northern Europe , AD 300 - 1300*. Woodbridge: Boydell Press, pp. 271-288.

Stocker, D., Jones, M. J. & Vince, A. G., 2003. *Lincoln Archaeological Research Assessment*, Lincoln: City of Lincoln Council.

Strang, V., 2004. *The Meaning of Water*. Oxford: Berg.

Stray, C., 1998. *Classics Transformed: Schools, Universities, and Society in England, 1830-1960*. Oxford: Clarendon Press.

Tamm, B., 1970. *Neros Gymnasium in Rome*. Stockholm: Almqvist & Wiksell.

Tatton-Brown, T., 1976. Excavations in 1976 by the Canterbury Archaeological Trust. *Archaeologia Cantiana*, pp. 238-240.

Taylor, R., 2000. Torrent or Trickle? The Aqua Alsietina, Naumachia Augusti, and the Transtiberim. *The American Journal of Archaeology*, 101(3), pp. 465-492.

Taylor, R., 2012. Rome's Lost Aqueduct. *Archaeology*, 65(2).

Terrenato, N., 2001. Ancestor cults: the perception of Rome in modern Italian culture. In: *Images of Rome: Perceptions of ancient Rome in Europe and the United States in the modern age*. Portsmouth, Rhode Island: Journal of Roman Archaeology, pp. 71-89.

Thomas, J., 2008. *Monument, Memory and Myth; Use and Re-Use of Three Bronze Age Round Barrows at Cossington, Leicestershire*, Leicester: Leicester Archaeology Monograph 14.

Thomas, J. S., 1991. *Rethinking the Neolithic*. Cambridge: Cambridge University Press.

Thomas, J. S., 1996. *Time, Culture, and Identity : An Interpretative Archaeology*. London and New York: Routledge.

Thomas, J. S., 1999. *Understanding the Neolithic*. London and New York: Routledge.

Thomas, J. S., 2001. Archaeologies of Place and Landscape. In: I. Hodder, ed. *Archaeological Theory Today*. Cambridge: Polity Press, pp. 165-186.

Thompson, F. H., 1954. The Roman aqueduct at Lincoln. *The Archaeological Journal,* Volume 111, pp. 105-128.

Thompson, I., 2005. Verlamion in the late pre-Roman Iron Age. In: R. Niblett & I. Thompson, eds. *Alban's Buried Towns: An Assessment of St Alban's Archaeology up to AD 1600*. Oxford: Oxbow Books, pp. 16-23.

Tilley, C., 1994. *A Phenomenology of Landscape: Places, Paths, and Monuments*. London: Berg.

Tilley, C., 2010. *Interpreting Landscapes: Geologies, Topographies, Identities (Explorations in Landscape Phenomenology)*. Walnut Creek: Left Coast Press.

Timby, J., Darvill, T. & Holbrook, N., 1998. The Public Building in Insula VI: Excavations Directed by J.S. Wacher 1961, A.D. McWhirr 1974-6, and T.C. Darvill 1980. In: N. Holbrook, ed. *Cirencester The Roman Town Defences, Public Buildings and Shops*. Cirencester: Cotswald Archaeological Trust, pp. 122 -140.

Todd, M., 1988. Villa and Fundus. In: K. Branigan & D. Miles, eds. *The Economies of Romano-British Villas*. Sheffield : J.R. Collis, pp. 14-20.

Todd, M., 1989. The Early Cities. In: M. Todd, ed. *Research on Roman Britain 1960-89*. London: Society for Promotion of Roman Studies, pp. 75-91.

Tomlin, R. S. O., 1983. Non Coritani sed Corieltauvi. *The Antiquaries Journal,* Volume 63, pp. 353-355.

Toynbee, J. M. C., 1962. *Art in Roman Britain*. London: Phaidon Press.

Ucko, P. J. & Layton, R., 1999. *The Archaeology and Anthropology of Landscape: Shaping Your Landscape*. London and New York: Routledge.

Urry, J., 1998. *Contested Natures*. London: SAGE.

van Driel-Murray, C., 1998. And Did Those Feet in Ancient Time... Feet and shoes as a material projection of the self. In: P. Baker, C. Forcey, S. Jundi & R. Witcher, eds. *TRAC 98: Proceedings of the Eigth Annual Theoretical Roman Archaeology Conference, Leicester 1998*. Oxford: Oxbow, pp. 131-141.

Vance, N., 1997. *The Victorians and Ancient Rome*. Oxford: Blackwell.

Wacher, J. S., 1959. I. Sites Explored. *Journal of Roman Studies,* Volume 49, pp. 113-5.

Wacher, J. S., 1963. Excavations at Cirencester, 1962. *Antiquaries Journal,* Volume 43, pp. 15-26.

Wacher, J. S., 1975. *The Towns of Roman Britain*. London: B.T. Batsford.

Wacher, J. S., 1978. The Water supply of Londinium. In: J. C. H. a. C. J. Bird, ed. *Collectanea Londiniensia: studies in London Archaeology and history presented to Ralph Merrifield*. London: LAMAS, pp. 104-8.

Wacher, J. S., 1995. *The Towns of Roman Britain*. 2nd ed. London: B.T. Batsford.

Wacher, J. S. & Pamment-Salvatore, J., 1998. Early Roman Occupation at Cirencester. In: N. Holbrook, ed. *Cirencester: The Roman Town Defences, Public Buildings and Shops*. *Cirencester Excavations V*. Gloucestershire: Cotswold Archaeological Trust.

Wait, G. A., 1985. *Ritual and Religion in Iron Age Britain,* London: BAR British Series149.

Waldron, H. A., 1973. Lead Poisoning in the Ancient World. *Medical History,* 17(4), pp. 391-399.

Walsham, A., 1999. Holy Wells in Protestant England. In: *Life and Thought in the Northern Church c. 1100 - c. 1700: Essays in Honour of Claire Cross*. s.l.:The Ecclesiastical History Society: The Boydell Press, pp. 227-257.

Wardle, A., 2008. Bene lava: bathing in Roman London. In: J. Clark, et al. eds. *Londinium and Beyond: Essays on Roman London and its hinterland for Harvey Sheldon*. London: Council for British Archaeology, pp. 201-212.

Ward-Perkins, J. B., 1974. *Cities of Ancient Greece and Italy: Planning in Classical Antiquity*. New York: George Braziller.

Warren, S. H., 1915. The Opening of a Romano-British barrow on Mersea Island. *Transactions of the Essex Archaeological Society,* Volume 13, pp. 116-139.

Weber, M., 1958. *The City*. Glencoe, Illinois: Free Press.

Weber, M., 1978. *Economy and Society*. Berkeley: University of California Press.

Webster, G., 1983. The Function of Chedworth Roman 'Villa'. *Transactions of the Bristol and Gloucester Archaeological Society,* Volume 101, pp. 5-20.

Webster, G., 1986. *The British Celts and their Gods under Rome*. London: B.T. Batsford.

Webster, G., 1988a. Wroxeter (Viroconium). In: G. Webster, ed. *Fortress into City: The Consolidation of Roman Britain first century AD*. London: B.T. Batsford, pp. 120-145.

Webster, G., 1988. *Fortress into City: The Consolidation of Roman Britain first century AD*. London: B.T. Batsford.

Webster, G., 1990. Wroxeter - The Military and Hadriannic Phases. In: P. Barker, ed. *From Roman Viroconium to Medieval Wroxeter*. Worcester: West Mercian Archaeological Consultants, pp. 1-2.

Webster, J., 1995. Sanctuaries and Sacred Places. In: M. J. Green, ed. *The Celtic World*. Oxford and New York: Routledge, pp. 445 - 465.

Webster, J., 2001. Creolizing the Roman Provinces. *American Journal of Archaeology,* 105(2), pp. 209-225.

Weekes, J., 2011. A Review of Canterbury's Romano-British Cemeteries. *Archaeologia Cantiana* , Volume 131, pp. 23-42.

Weekes, J. & Seary, P., 2011. *Canterbury Westgate Gardens Desk-based Assessment,* Canterbury: Unpublished Canterbury Archaeological Trust Document.

Weiss, C. F., 2010. Performativity of Place: movement and water in second century A.D. Ephesus. In: A. Moore, et al. eds. *TRAC 2009: Proceedings of the 19th Theoretical Roman Archaeology Conference*. Oxford: Oxbow Books, pp. 66-74.

Wheeler, R. E. M. & Wheeler, T. V., 1936. *Verulamium, a Belgic and Two Roman Cities*. London: Society of Antiquaries.

White, R. H., 1999. *The Evolution of the Baths Complex at Wroxeter*. Portsmouth, Rhode Island, Journal of Roman Archaeology, pp. 278-292.

White, R. H. & Barker, P. A., 1998. *Wroxeter: the Life and Death of a Roman City*. Stroud: History Press.

Wildfang, R. L., 2006. *Rome's Vestal Virgins*. London and New York: Routledge.

Wilkes, J. J., 1999. Approaching the Roman Baths. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology: Supplementary Series Number 37, pp. 17-25.

Williams, A. & Frere, S. S., 1949. Roman Canterbury. *Medici Society,* Volume IV, p. 21.

Williams, J. H. C., 2001. *Beyond the Rubicon: Romans and Gauls in Republican Italy*. New York: Oxford University Press.

Williams, R. J., 1994. *Bancroft late Bronze Age and Iron Age Settlements and Roman Temple-Mausoleum*. Aylesbury: Buckinghamshire Archaeological Society.

Williams, S., 2006. *93 Nettleham Road, Lincoln: Archaeological Investigation Report*. Lincoln: Pre-Construct Archaeology Lincoln.

Williams, T., 1993. *The Archaeology of Roman London. Volume 3 Public Buildings in the South-West Quarter of Roman London,* York: Council of British Archaeology.

Williams, T., 2003. Water and the Roman city: life in Roman London. In: P. Wilson, ed. *The Archaeology of Roman Towns: Studies in honour of John s. Wacher*. Oxford: Oxbow Books , pp. 242 - 251.

Willis, S., 1999. Without and Within: Aspects of Culture and Community in the Iron Age of North-Eastern England. In: B. Bevan, ed. *Northern Exposure: Interpretative Devolution and the Iron Ages in Britain*. Leicester: Leicester University Press, pp. 81-110.

Willis, S., 2005. Samian Pottery, a Resource for the Study of Roman Britain and Beyond: the results of the English Heritage funded Samian Project. An e-monograph. *Internet Archaeology,* Volume 17.

Willis, S., 2006. The Later Bronze Age and Iron Age (first millennium BC). In: N. J. Cooper, ed. *The Archaeology of the East Midlands. An Archaeological Resource Assessment and Research Agenda*. Leicester : Leicester University Press, pp. 89-136.

Willis, S., 2007a. Sea, Coast, Estuary, Land, and culture in Iron Age Britain. In: C. Haselgrove & T. Moore, eds. *The Later Iron Age in Britain*. Oxford: Oxbow Books, pp. 107-130.

Willis, S., 2007b. Roman Towns, Roman Landscapes: The Cultural Terrain of Town and Country in the Roman Period. In: A. Fleming & R. Hingley, eds. *Prehistoric and Roman Landsacpes: Landscape History after Hoskins*. Macclesfield: Windgather Press, pp. 143-165.

Willis, S., 2008. Review of David Mattingly's An Imperial Possession: Britain in the Roman Empire, The Penguin History of Britain. *American Journal of Archaeology,* 112(4).

Wilmott, T., 1982. Excavations at Queen Street, City of London, 1953 and 1960, and Roman timber-lined wells in London. *Transactions of the London and Middlesex Archaeological Society,* Volume 33, pp. 1-79.

Wilmott, T., 1991. *Excavations in the Middle Walbrook Valley: City of London, 1927-1960,* London: London and Middlesex Archaeological Society.

Wilson, P., 2003. *The Archaeology of Roman Towns: Studies in honour of John S. Wacher*. Oxford: Oxbow.

Wissowa, G., 1912. *Religion und Kultus der Römer*. Munich: C.H. Beck.

Witcher, R., 1998. Roman Roads: phenomenological perspectives on roads in the landscape. In: C. Forcey, J. Hawthorne & R. Witcher, eds. *TRAC97: Proceedings of the Seventh Annual Theoretical Roman Archaeology Conference Nottingham 1997*. Oxford: Oxbow Books, pp. 60-70.

Witcher, R., 2000. Globalisation and Roman Imperialism: Perspectives on Identities in Roman Italy. In: E. Herring & K. Lomas, eds. *The Emergence of State Identities in Italy in the First Millennium BC*. London: Accordia Research Insitute, University of London, pp. 213-225.

Woodward, P. J., 1993. The Discussion. In: P. Woodward, S. Davies & A. Graham, eds. *Excavations at Greyhound Yard, Dorchester 1981-4*. Dorchester: Dorset Natural History and Archaeological Society monograph series 12, pp. 351-380.

Woodward, P. & Woodward, A., 2004. Dedicating the town: urban foundation deposits in Roman Britain. *World Archaeology,* 36(1), pp. 68 - 86.

Woolf, G., 1993. Rethinking the oppida. *Oxford Journal of Archaeology,* 12(2), pp. 223-234.

Wright, R. P., 1948. Roman Britain in 1947: I. Sites Explored II. Inscriptions. *Journal of Roman Studies*, Volume 38, pp. 81-104.

Wright, R. P., 1958. Roman Britain in 1957: I. Sites Explored: II. Inscriptions. *Journal of Roman Studies*, 48(1/2), pp. 130-155.

Wright, T., 1872. *Uriconium: A Historical Account of the Ancient City*.. London: Longmans, Green and Co.

Yates, D. & Bradley, R., 2010. Still water, hidden depths: the deposition of Bronze Age metalwork in the English Fenland. *Antiquity,* 84(324), pp. 405-415.

Yegül, F., 2010. *Bathing in the Roman World*. Cambridge: Cambridge University Press.

Yule, B., 2005. *A prestigious Roman building complex on the Southwark waterfront: excavations at Winchester Palace, London, 1983–90*. Monograph Series 23. London: MoLAS.

Zajac, N., 1999. The thermae: a policy of public health or personal legitimation?. In: J. DeLaine & D. Johnston, eds. *Roman Baths and Bathing*. Portsmouth, Rhode Island: Journal of Roman Archaeology Supplementary Series Number 37, pp. 99-107.

Zant, J. M., 1993. *The Brooks, Winchester, 1987-88. The Roman Structural Remains*.. Winchester: Winchester Museums Service.

Zienkiewicz, J. D., 1986. *The Legionary Fortress Baths at Caerleon*. Cardiff: National Museum of Wales.

Web Resources

Canterbury Archaeological Trust. 2013. [Online] Available at: http://www.canterburytrust.co.uk/ [Accessed 12 09 2013].

Municipality of Rimini official web site. 2013. [Online] Available at: http://www.comune.rimini.it/ [Accessed 12 09 2013].

Norfolk Archaeological Trust. 2013. [Online] Available at: http://www.norfarchtrust.org.uk/caistor [Accessed 12 09 2013].

Hampshire Treasures Online. 2013. [Online] Available at: http://www.hants.gov.uk/hampshiretreasures/ [Accessed 12 09 2013].