Rethinking small town market status in Roman Britain: a review of the data for five case studies in the Thames Valley region

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Abstract

Small towns in Roman Britain have traditionally been considered market centres, yet this role has not been widely investigated or established empirically. Many small towns have now been identified in the landscape and been subject to archaeological interventions, resulting in an accumulation of data of varying quality. These settlements remain little understood in the wider context of Roman Britain, ensuring that the lack of any alternative characterisation has been met by continued belief in a market centre role.

The aim of this research is to rethink the role of small towns as market centres using a systematic review of the archaeological data, by means of two objectives. Firstly, to examine the veracity of the claims made for market centre status and secondly, to establish an alternative characterisation of these settlements based on a fresh interpretation of key evidence. The thesis is arranged in sections, the first of which conducts a thorough appraisal of the pertinent literature and theoretical background which have informed the research methodology employed. The second section considers the data for five case studies for the purpose of appraising the nature of specific claims for market centre status. The case study small towns and local rural settlements (within a radius of 10 km) have been carefully selected for their market centre potential based on their geographical locations peripheral to the new major Roman centre of *Londinium*; locations on major roads; access to the Thames Valley river system; and central places in relation to agricultural hinterlands. The towns are Roman Braughing, Dorchester-on-Thames, Ewell, Roman Neatham and Staines-upon-Thames. The third section reviews the archaeological evidence for production, storage, preparation and distribution of food staples (meat and cereal), followed by detailed assessment of pottery and quernstone assemblages from both individual towns and hinterland rural sites.

The findings of sections two and three support the conclusion that the small towns were not market centres in the traditional sense: the evidence for specific claims is very weak. Fresh interpretation of the evidence however strongly suggests that these towns should be better understood as independent agricultural communities. It is argued that although they developed as a response to change under Roman authority, these small towns did not fulfil any organised role as Roman market centres, but traded goods as needed through established socio-economic networks and with passing road travellers.

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SECTION ONE: Introduction, background and approach

Introduction

The aim of this research is to gain a better understanding of the 'small towns' of Roman Britain by focussing on one particular issue: market centre status. Small towns are defined as largely unplanned (lacking the grid-pattern of streets characteristic of large towns), nucleated, minor settlements often located on the major Roman road network and sometimes defended. Archaeological material relating to small towns is generally agreed to have been understudied to date, perhaps losing out to the more enticing sites of Roman villas or Hadrian's Wall. Attempts at categorisation, inspired by the accumulation of archaeological material by the late 20th century (Todd 1970; Rodwell and Rowley 1975; Burnham 1986, 1987; Burnham and Wacher 1990; Millett 1995; Brown *et al*. 1995), served to highlight a number of challenges to understanding the role of these settlements in Roman Britain. The initial assertions have largely remained uncontested and little critical appraisal has since been made. In response, this present research focusses on the issue of the extent to which small towns acted as market centres for local rural populations and redistribution centres for large settlements, such as *Londinium* (Roman London). The need to answer this particular question is accentuated by the fact that lack of study has led to lacunae filled by conjecture, adopted and repeated throughout the literature. Market centre function has not been specifically investigated in this context until now and the findings of this present research make an original contribution in this field.

This research has been designed to investigate how the conventional wisdom that small towns in Roman Britain acted as market centres has come about and whether the evidence claimed in support of this idea can be accepted. The conclusion reached is that the claim is very weakly supported in the case studies investigated, with a review of the broader evidence available suggesting an alternative characterisation. The evidence base includes detailed data produced by new advances in fields such as zooarchaeology and environmental sampling, in an attempt to reach a closer interpretation of the economic role of small towns in the province, and thereby make an important contribution to understanding Roman Britain as a whole.

In order to achieve the aim of this research in rethinking small town market centre status, two objectives have been set. The first objective is to appraise the strength of the claims for small town market centre status. The second is to examine the evidence for an alternative characterisation of these settlements. The importance of this study in the light of

current academic debate is first established below, before the research context and the design and the organisation of this thesis and use of case studies are explained.

1.1 Current academic debate

Current archaeological debate is open to evaluating the processes which have informed present knowledge; future progress will be made through new interpretations as well as the benefit of new data. Innovation was clearly embraced by the papers presented at two recent conferences: *Shining a light on the 5th century AD in Surrey and the South-East: How did Roman Britain become Saxon England?* (05.05.2018)[1] and the *Retrospect and Prospect: 50 years of* Britannia *and the state of Romano-British Archaeology* (November 2017)[2]. Within this open debate, a number of on-going issues are pertinent and the following have been important in the conceptualisation of this present study:

- A demand for greater contextual understanding of artefacts.
- Artificially contrived periods (Early, Mid- and Late Roman) need to be used with care to ensure balanced coverage of the era and its unfolding processes.
- New ways are being sought to understand evidence rather than looking for evidence to 'fit' a particular theory or model.
- There is concern that the established practice of dating and contextualising analysis by marrying archaeology with history (that is linking archaeological material with contemporary or loosely contemporary literary accounts) should be used more judiciously.
- The reliance on coins to date material deposits by reference to a minting period continues to be problematic, as is the need to understand the context of coin finds and relating them to usage in the Roman period[3].

Millett has made a number of points relevant specifically to the study of small towns in Roman Britain (2017); points which resonate strongly with the approach and method employed by this present study:

[1] The following papers in particular: P. Guest 'Late Roman coinage in south-eastern England and beyond', J. Gerrard 'Pottery, power and small worlds at the end of Roman Britain' and S. Lucy 'Thinking about transitions: perspectives from Eastern England'.
[2] The following papers in particular: M. Millett 'Urban highlights' and N. Holbrook ' The Countryside: Past Achievements, Future Challenges'.
[3] It is not certain what coins signified among different socio-economic groups, in different regions and at different times. In small towns coins are infrequently found within stratified deposits, especially when obviously residual coins are excluded, and so have limited value for site interpretation.

- There is potential for greater integration of small towns into the bigger picture of Roman Britain.
- Many past studies have concentrated simply on the data with less thought given to how this might be interpreted[4].
- Greater insight might be gained by urban surveys which include associated countryside sites (urban-rural relationship) - something which might be achieved through studying bone and seed remains.
- Fresh approaches to combining site material with finds data would enhance context knowledge for a site.

In addition to theoretical debate, recent decades have witnessed the increasing use of technology in surveying, analysing, recording and representing archaeological remains with the development of sophisticated tools such as LIDAR[5], GPR[6] and GIS[7] software. Computer technology has boosted the volume and quality of data available for research, much of which is now widely accessible through the Internet. Now is clearly an apt time to rethink past strategies, question old interpretations and realise the potential of new data and tools to investigate the small towns in Roman Britain.

1.2 Past concern with the idea of small town market centres

Despite a persistent presence in the literature, past concern has been registered, at least parenthetically, about the convention that small towns in Roman Britain acted as market centres. Millett and Graham noted in the 1980s that this function was 'difficult to demonstrate archaeologically' (1986, 157). More recently Millett has claimed that in the later Roman period defended small towns acted as collection points for the *annonae* (1990, 143-151), but this has been challenged through lack of evidence (Allen *et al.* 2017, 174), as has Allen's claim that roadside settlements 'must also have had a role in handling agricultural produce' (*ibid*). Crucially there is no ancient literary or epigraphic account of a market centre in Roman Britain, so material evidence is vital if this conviction is to be upheld. The idea of small town market centres remains at present the result of essentially a circular argument, and spuriously buttressed by various studies carried out on the Continent (e.g. Gechter 1995, 195). Since it has become established this convention has

[4] Taylor has argued elsewhere in regard to rural studies, that this type of approach has led to implicit assumptions signifying an accepted orthodoxy (2001, 48-9).
[5] Light Detection and Ranging which uses laser light for remote sensing to produce a picture of the ground surface.
[6] Ground Penetrating Radar can be used to locate archaeological features below ground level.
[7] Geographical Information Systems which can be used to map and analyse data.

underpinned a number of associated research areas, particularly those concerned with the distribution of pottery, as well as informing broader discussions on the economy of the province. With this in mind, the impact of a successful challenge to this idea requires an alternative characterisation of small towns which fits with research in associated fields and a wider understanding of Roman Britain.

There is clearly a need for an evidence based understanding of the economic role of small towns, as both a defined settlement type and to determine whether they were an integral part of the distribution of goods in Roman Britain. Interpreting the often meagre evidence poses the main challenge. The large scale collection and analysis of data on rural Roman Britain (Smith *et al.* 2016; Allen *et al.* 2017) has led Allen to concede that it remains 'impossible to tell' from where bulk imports of livestock to large Roman towns, for instance, were actually derived. With generally little evidence for storage or transportation, it is still not known how food was collected and redistributed to the consumer (Holbrook 2017). The approach taken in this present study is that asking the question 'how' should perhaps be left until the question of 'to what extent' centralised marketing occurred at all, has been answered.

1.3 The need for research and the use of case studies

There are now a large number of small towns identified across Roman Britain (see Chapter 2 for literature background and Chapter 3 for discussion of the criteria) - Burnham and Wacher (1990) focussed on only 54 of the best known at the time. Shared qualities (such as unplanned street patterns) juxtaposed with individualising features (such as religious shrines), have been used to define many settlements as 'small towns' and by association as having market centre roles. Due to the large number, within the limitations of a research thesis, five case study small towns have been selected for investigation:

- Roman[8] Braughing (Hertfordshire)
- Dorchester-on-Thames (Oxfordshire)
- Ewell (Surrey)
- Roman[9] Neatham (Hampshire)
- Staines-upon-Thames (Surrey)

[8] The term 'Roman' is used extensively in conjunction with the modern name of the small town in the text to distinguish the settlement from a nearby village of the same name.
[9] As for previous footnote.

These small towns have been chosen by reason of their potential as redistribution centres for goods intended for *Londinium* and their potential as exchange centres for a local rural population. All are sited within the Thames Valley catchment region with access to both the river system and the network of Roman roads (Figure 1.1), thus enabling points of comparison to be justified. This small sample is not intended to necessarily represent all small towns, particularly those in other regions of the province, but can serve to demonstrate the worthiness of this type of investigation.

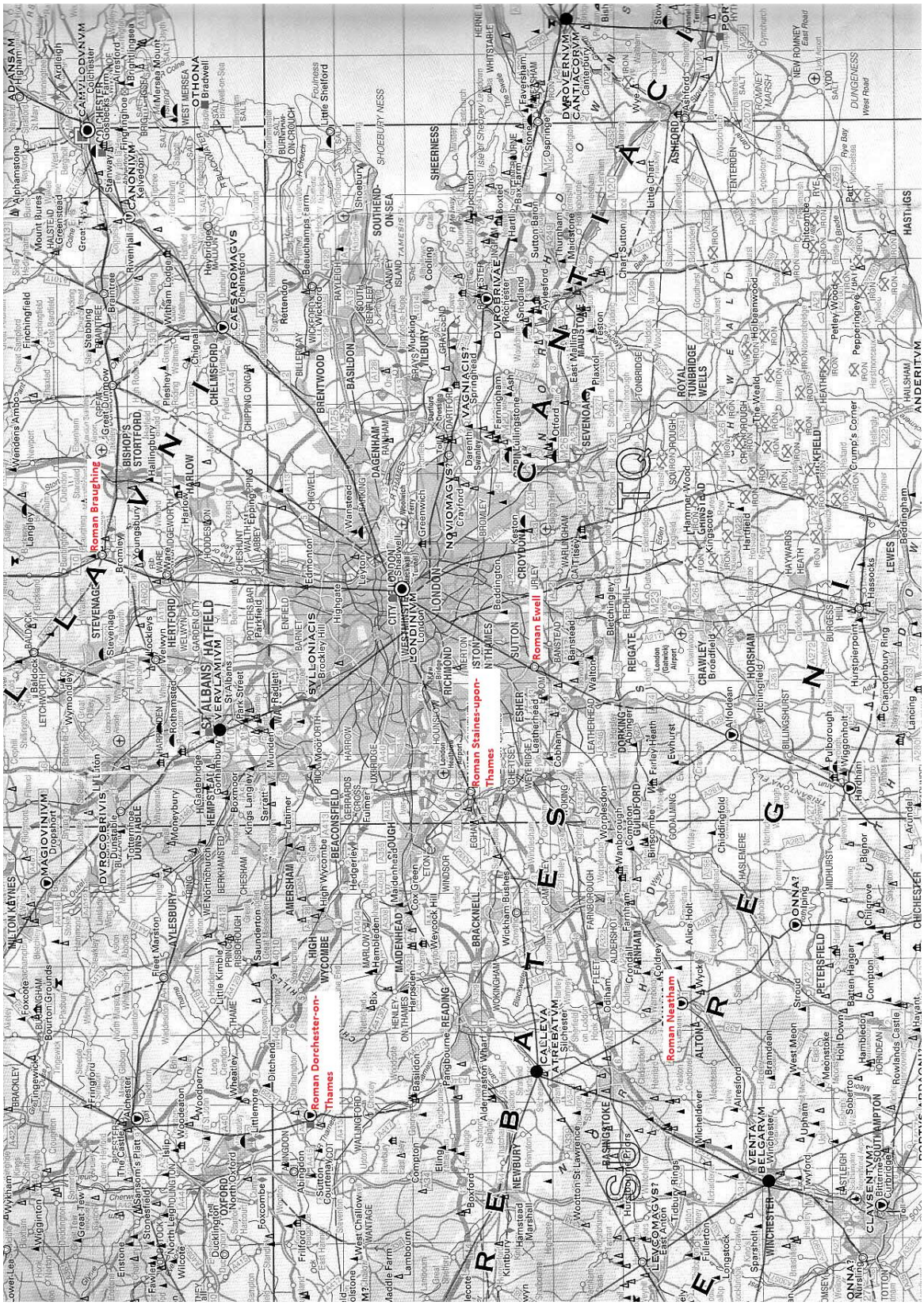


Figure 1.1 Location of the five case study Roman small towns (red) in relation to *Londinium* and the road network (based on Ordnance Survey Roman Britain)

1.4 Thesis outline

The thesis is organised into three sections:

- Section 1 covers the context of the project in terms of a review of the literature (Chapter 2); the theoretical considerations brought to bear (Chapter 3); an account of the data and qualitative methodology employed: a systematic review (Chapter 4).
- Section 2 is devoted to the individual case studies of the small towns and reviews what it known about their founding, development, character and potential natural resources, before examining the legitimacy of claims for market centre status in light of this material (Chapters 5 – 9). Each of these chapters includes an individualised summary of the literature and archaeological interventions for the small town and surrounding rural hinterland.
- Section 3 reviews the data available relating to each of the five case studies with the objective of eliciting an evidence based interpretation of the economic character of these towns. This is achieved through synthesising, comparing and contrasting data within the categories of urban morphology (Chapter 10), local rural settlements (Chapter 11), livestock production (Chapter 12), cereal crops (Chapter 13) and milling (Chapter 14), and finally pottery distribution (Chapter 15). The final section concludes with a discussion of the findings (Chapter 16) and considers the impications of this research for current knowledge and future research (Chapter 17).
- The raw data and contextual material used for this research is included in listed appendices.

1.5 Use of key terms

It is important to clarify at the outset the particular use of four key terms in this thesis:

- *Small town* is used to refer to the case study settlements but due to ambiguity, the use and definition of this label is deliberated in Chapter 3 and, where pertinent, in the individual town chapters. (The closely associated term *roadside settlement* has not been applied to any of these settlements on the basis that all are thought to have had a nucleated centre).
- *Market centre* is defined by retail and wholesale elements as might be found in Roman Britain, such as shops or a market place. Detailed consideration of the presence or absence of such elements comprises the central threads of this thesis and are elucidated in the main body of the text.

- *Hinterland* is used to define the area of land around a small town (within a 10 km radius) which potentially interacted with, but was not necessarily dependent upon, the central settlement. The terms *urban-rural fringe* and *umland* have also been used where peripheral land on the edge of a town is meant.
- *Romano-British* is a commonly used term in specialist and non-specialist literature, generally held to mean an integrated Roman and native culture characterising that of Britain under the Roman Empire. It cannot however be used lightly without answering the question of what is meant by 'Roman' or indeed 'native culture'. The imprecise and context dependent nature of this term renders it unhelpful for this study due to its value-laden nature and for this reason its use has been avoided where possible. In a similar vein, where the term *Roman* has been used to qualify small towns this relates to the historic period rather than being a cultural reference.

Explanation of additional terms and the sense in which they are used in this work, as well as those specifically contrived for this research (e.g. Early Roman) are included in Chapter 3 Theoretical background and Chapter 4 Methodology.

1.6 Limitations and scope of study

The range and detail of the data available for research in this field and the limitations of time and space in carrying out a PhD thesis have together determined what it has been possible to include and what has had to be left out. Although the potential for reassessing the role of provincial small towns is strong, where there are limitations to the approach used, the quality of the data and to the conclusions drawn from the findings these have been made clear at appropriate junctures in the text.

The scope has been limited to the archaeological evidence which can most closely be brought to bear on the study aim and objectives: data relating to the basics of food production and consumption: agricultural production, processing and pottery (storage and preparation). The bedrock of the economy of the Roman Empire was subsistence agriculture alongside the production of surplus to feed the citizens of Rome and support the army. Whilst an economic perspective is not pursued in this study, literature in this field (Finley 1973; Miles 1982; Griffiths 1986; De Ligt 1993; Scheidel *et al.* 2007) has informed the consideration of the distribution of goods in Roman Britain.

Although traditionally associated with trade, the *a priori* concern for the presence of coin finds to denote exchange and marketing has not been included. This is because attempts

to marry coin finds with market centres and trading in rural areas, have not been well supported by evidence (Brindle 2017, 237-77). The cultural significance of coins in Roman Britain and their use as payment for goods or services remains poorly understood (Reece 1987; Moorhead 2013).

The constraints of time and space on this research mean that extrapolating the findings of this study to understanding the large number of small towns now identified in Britain, is not possible, but nonetheless the approach used and the findings may inform future studies of small towns as discussed in the conclusion.

1.7 Summary

The aim of this research in rethinking small town market centre status is realised in meeting the two stated objectives, thereby challenging conventional wisdom and demonstrating an alternative understanding of these settlements. In order to establish this research as an original contribution, previous work in this field is set out in the following chapter (Chapter 2 Literature review), before particular conceptual influences are drawn out to inform the substance of Chapter 3: Theoretical background.

Literature review

2.1 Introduction

The conventional wisdom that small towns in Roman Britain acted as market centres became intrinsic to the literature of the second half of the last century[10]. A literature review is therefore important to this present research in explaining the basis for the conceptual background, the formative issues and the motivations of key thinkers in this field. The chronological nature of this chapter is intended to reveal the importance of the evolution of the interpretation of the archaeological material evidence over time, and serves to identify points of departure where there is likely to be value gained by re-evaluating the data. The theoretical background which underpins this research and is detailed in the next chapter is informed by this background. The aim of this chapter is to establish how the belief in small towns as market centres has evolved; how it has been studied and represented to date.

The first part of the review briefly explains the history of Roman small town literature preceding the major publications on Roman small towns of 1970s, 1980s and 1990s; the first point of contact is generally with volumes of this period, such as Burnham and Wacher's *The 'Small' Towns of Roman Britain* (1990). Five books on small towns from these decades are reviewed in this section along with key papers and other significant books on Roman Britain which have informed this research. The final section of the review covers the remaining literature which has played a part in the choice of material and approaches making up this study.

Literature exclusive to the individual case study small towns is reviewed separately at the start of the relevant town chapters in Section 2. A review of the large volume of specialist literature on Roman pottery, environmental archaeology, osteoarchaeology, ancient agricultural, has not been attempted, although reference to this body of knowledge has been invaluable to the research. Instead the contribution of this knowledge has been made clear at the relevant discussion points throughout the thesis.

[10] All the literature reviewed here is published in English.

2.2 Evolution of the current body of small town literature

The earliest recorded interest in small town sites appears in the works of the antiquarians of the 16th and 17th centuries, particularly Camden (1695) and Stukely (1776[11]). By the 18th century the antiquarian, J. Horsley, was publishing his observations in a dedicated volume: *Britannia Romana.* By the 1980s a proliferation of archaeological publications reflected the growth in academic and public interest in Roman period archaeological sites; more recently research frameworks compiled to provide periodic regional overviews of the state of archaeological knowledge have notably included Roman small towns. Those of the Council for British Archaeology (CBA) and D. Perring's *Town and Country in England: Frameworks for archaeological research* (2002) are particularly relevant for research into small towns.

Instrumental in stimulating interest in small towns have been the aerial photographs taken in the last century, which have enabled hitherto lost or unknown settlements, enclosure ditches, building foundations and Roman roads to be picked out through cropmarks in the landscape. This new resource was published in the Cambridge University Collection of Air Photographs, incorporated into the NMR[12] and studied in relation to small towns by D. R. Wilson (Rodwell and Rowley 1975) and also by S. Frere and St Joseph (1983). This method of identifying and studying sites has more recently benefited from advances in digital technology through the use of satellite mapping (Google Maps and Google Earth) and the processing of data by Geographical Information Systems (GIS). However, aerial surveys and map representations have led to a 'birds eye view' approach dominating settlement studies but which is unlikely to reflect the real time distribution, development and function of small towns in the landscape of Roman Britain.

2.3 Early general works which include small towns in Roman Britain

Major works to include small towns in Roman Britain represent the body of knowledge at progressive stages over the 20th century (Todd 1970; Smith 1987; Burnham and Wacher 1990). They provide a synthesis of the material and academic thought in response to the need to organise and publish the increasing amount of small town data at the time[13]. Previously, books on Roman Britain published in the 1960s had started to include sections devoted to towns, but not specifically 'small' towns (i.e. Richmond 1963). Richmond

[11] Stukely, W. 1776, *Itinerarium Curiosum*, London: Baker and Leigh, Covent Garden. Although this work is often cited, the present author has not found a copy available to view.
[12] National Monuments Record (now Historic England Archive).
[13] Particularly in large studies, how syntheses and summaries are arrived at are rarely made explicit.

typified the view at this time that the Roman authorities imposed 'civilisation' on the indigenous population of Britain through the foundation of urban centres in the form of towns[14]: initially developing *civitas* centres such as *Verulamium* (St. Albans) and founding *coloniae* such as *Lindum* (Lincoln). In this way it was thought that the Romans were able to exploit the provincial economy of Britain, leaving the local population firmly in the countryside (cf. Hingley 1989; Burnham and Johnson 1979): thus producing an urban-rural divide. In this context the role of small towns was thought to be administrative, a supposed continuation of the local *pagi* (area of scattered settlement[15]) system, adopted by the Romans to facilitate tax collection.

As 'loosely planned' nucleated settlements (Richmond 1963, 95) small towns were understood to possess 'numerous shops and workshops, indicative of their importance as local market centres' (Richmond 1963, 96). Clearly influenced by excavated establishments at Pompeii and Herculaneum, a shop function was the natural explanation of the rectangular footprint of many of the buildings which fronted the roads in small town sites. The essence of this idea has persisted in attempts to link small towns with the exploitation of natural resources and perceived urban manufacturing (Mattingly 2011, 321). The archaeological evidence in support of market centre activity has however remained elusive.

A.L.F. Rivet's work, *Town and Country in Roman Britain* (1964), is of particular note. Rivet saw the development of towns, such as *Verulamium*, in terms of Iron Age (hereafter IA) political geography assuming the 'Romanisation' of earlier 'urban centres'; a similar view to Richmond (1963). Rivet attempted to understand the role of towns on the basis of the Roman features identified: temples, fora, public baths, theatres and *mansio* buildings. This approach was adopted and continued to dominate research on all towns for the ensuing decades (Wacher 1974; Burnham and Johnson 1979; Burnham and Wacher 1990; Brown 1995). The original idea of categorising towns by 'type' ('Roman' towns and 'Other' towns (?small towns)) is to be found in Rivet, and from here that debate over town defences and urban boundaries (*q.v.* Esmonde Cleary 1987) developed. These early works recognised inadequate excavation of small town sites yet lacked appreciation of the differences between larger and small towns in Roman Britain.

[14] Larger *vici* associated with military bases (Corbridge, for example) were also later attributed 'town' status.
[15] Definition from http://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.04.0063:entry=pagus-cn

2.4 A new focus on small towns: collections of papers and categorising small towns

Todd's 'The small towns of Roman Britain' published in *Britannia* (1970) was the first to attempt an overview of the now recognised group of Roman settlements: 'small towns'. Discrimination between towns was lacking in earlier studies (Richmond 1963; Rivet 1964), and Todd advocated a dedicated discussion of 'small town' settlements (1970, 115). Whilst Todd's review noted many of the challenges recognised in studying the archaeological features of small towns, such as understanding the function of rectilinear buildings and the presence of defences, he contended that small towns were closely connected to local agricultural production[16] and therefore must have performed a market function (1970, 124). Todd reasoned that future evaluation of small town sites should be 'in the context of the surrounding countryside' (1970, 130), in recognition of the non-isolation of small towns from their hinterlands. A directive he endeavoured to follow in his own later work, *The Coritani* (1991), but which has only received spasmodic attention (e.g. Hingley 1989; Taylor 2013).

A substantial number of excavation site reports had accumulated by the mid-1970s, enough to merit a dedicated conference on small towns organised by Oxford University. It was the aim of this conference to review the current level of understanding of small towns through papers submitted by key researchers in this field: S.S. Frere, J. Wacher, M. Todd, I. Hodder, and A.L.F. Rivet (Rodwell and Rowley 1975). The conference identified the fundamental challenges to distinguishing a 'small town' from any other settlement type and whether use of the label 'town' was in any case justified. Of special relevance to this present study is Frere's paper arguing for a general economic role for small towns and Hodder's innovative attempt to explain the spatial distribution of small towns by the application of Central Place Theory. The 'small towns' detailed in the second section of the publication (Rodwell and Rowley 1975) included two of the case study towns in this present study: Dorchester-on-Thames (pp. 115-120) and Braughing (pp. 139-155), as they were among the best known sites at the time. A close alliance with a rural 'hinterland' is assumed, befitting an ideal 'market centre', but no supporting evidence is offered for this contention. This collection of papers provided a platform for later key publications, particularly Burnham and Wacher's *The 'Small Towns' of Roman Britain* (1990).

[16] Todd recognised evidence for areas of urban manufacturing industry, particularly pottery, iron smelting and leather working as also significant in local economies. Detailed examinations of the impact of the Roman invasion on various industries by W. H. Manning (metalwork), J. P. Wild (textiles), W. R. Rodwell (salt production) from this decade can be found in Burnham and Johnson (1979).

R. F. Smith's *Roadside Settlements in Lowland Roman Britain* (1987) and S. Esmonde Cleary's *Extra-Mural Areas of Romano-British Towns* (1987), have also informed this present study. Smith detailed 148 linear, or 'roadside' settlements which appeared to have developed in the landscape directly as a result of the construction of the post-Conquest road network, a subgroup of which might be deemed 'small towns'. The economy of roadside settlements based on Smith's survey of the evidence relating to field systems, building remains and features, suggests a significant agricultural basis to the settlements. Smith also investigated evidence for salt refining, glass production, pottery, iron smelting and smithing, bronze and pewter working, to conclude that food production was the prime economic concern for most roadside settlement occupants. Despite this evidence Smith conceded that the argument for roadside settlements as 'market centres' (1987, 84-86) is not well supported.

Esmonde Cleary's survey of the archaeological evidence specifically relating to the extra-mural urban areas of Romano-British small towns (1987)[17] includes, notably, Dorchester-on-Thames. Apposite to this present study is that Esmonde Cleary attempted to account for the extent to which defences erected around the nucleus of many small towns late in the 2nd century AD affected the layout, functions and activities, particularly economic, of small towns in Roman Britain. His conclusion that 'small' towns, in contrast to 'large' towns like Silchester, were seemingly unaffected by the construction of defences (1987, 186) is considered in the case study chapter on Dorchester-on-Thames and in the review of the features and finds data comprising Section 3.

Of major importance in 1990 was the publication of B. Burnham and J. Wacher's collaboration, *The 'Small towns' of Roman Britain,* a timely survey of 54 (of the then best known 80) minor towns. This survey offered an overview of the sum of knowledge of Roman small towns at this time and has since become a significant reference work. The 54 towns are organised into groups according to specific visible features. Hence Roman Braughing and Dorchester-on-Thames appear as 'Minor Towns'[18]; Staines-upon-Thames under 'Undefended Settlements'; Neatham under 'Minor Defended Settlements'; Ewell is not included[19]. The earlier work of both authors clearly influenced the concept of this volume. Burnham's work on settlement morphology (1987, 156-190) and the origins of

[17] Based on his original PhD thesis of a decade earlier and reworked to include more recent archaeological evidence for publication (1987).
[18] It is not clear why Dorchester-on-Thames was not included in the category of 'Minor Defended Settlements' as the defensive wall around is noted in the text.
[19] Much of what is now known about Roman Ewell post-dates this work.

small towns (1986, 185-203) is evident, as is Wacher's attempt to define a category of 'small towns (1974). So too is an attempt to reconcile relative and competing influences of pre-existing IA occupation sites, newly imposed military forts and road networks, in the founding of small towns in Britain. The discussions on 'Internal Morphology' and 'Economic Functions' in the book have provided useful starting points for this present study, particularly in regard to the discussion of the potential significance of 'zones' of economic activity in small towns and the function of rectilinear strip buildings (Burnham and Wacher 1990, 18 and 46).

Burnham and Wacher observed that whilst small towns may have developed at key points on communication routes apparently to exploit trading networks, it is difficult to find evidence to support such a link: 'market buildings, in particular, have proved especially elusive' (1990, 46) as have *macellum* or *forum* structures. It is clear here that the concept of 'small towns' in this book was approached in the feature-led way traditional in the study of major towns, with the result that clearly demonstrates that those features we might 'expect' to find in a small town are largely based on those excavated at *civitas* centres and large towns in Roman Britain and on the Continent where they are typically identified from their monumental (stone-built) layout.

However, a raft of theoretical approaches to studying this topic along with some critique of the methodology applied to date was showcased in a collection of conference papers entitled *Roman Small towns in Eastern England and Beyond* (Brown ed. 1995), demonstrating new directions in this field. Contributions to this volume included papers on individual settlements, such as Sandy (M. Dawson) and *Durobrivae* (D. F. Mackreth), and those taking a regional view: small towns in the modern county of Leicestershire (P. Liddle), North Lincolnshire and South Humberside (B. Whitwell), the territory of the *Catuvellauni* (C. Woodfield) and Gaul (A. King).

The overriding concerns of the mid-1990s to account for the nature, distribution and role of small towns as a recognisable category resulted in concern in some quarters that this approach obscured the diversity of these settlements, and that this might be addressed by a return to first principles (Millett 1995; Creighton 2006). Millett advocated that future study should consider small towns 'in relation to other contemporary features in the landscape' and 'in relation to a full range of different social and economic functions' (1995, 30); in order not to become isolated from the context of Roman Britain. The recent

work by Taylor (2013) demonstrates these concerns, but few others can be cited (Millett 2017).

Part of a wider, more recent debate centring on the concept of 'Romanisation' (Millett 1990; James and Millett 2001) has had an impact on the kinds of questions that might be asked of the archaeological data and the economic trends which might be expected to have underpinned the growth of small towns (Millett 1990, 143-151). Millett's conjecture that a significant number of small town sites 'probably functioned as nodes for marketing and production' (1990, 144) however, falls back on unsubstantiated conventional wisdom. Nonetheless, Millett's contribution to understanding small towns has generated a number of insights.

Millett has argued that the economic role of small towns was affected by changes in the administration of the province, from a central role in the Early Roman period to becoming decentralised by the Late Roman period (1990). This is based on the early towns being seen as involved in inter-provincial trading (based on the interpretation of imported pottery records); later market centre trading being a manifestation of the regional distribution of the products of rural industries (Millett 1990, 157). Millett's views have also drawn on a tentative but widely mooted theory that small towns developed on the boundaries between Late Iron Age (hereafter LIA) native tribes. This is problematic in that the existence or extent of any of the 'territories' of British 'tribes', such as the Belgae or Atrebates, has not been established (Moore 2011); without evidence for which any economic significance cannot be assumed.

Interest in the nature of rural-urban interaction in Roman Britain developed in the 1980s and 1990s; of particular note is the work of Hingley (1989) and Burnham (1986; 1993). Hingley focussed on the contemporary theoretical views brought to bear on understanding rural settlements to propose that future research should avoid forcing archaeological evidence into a 'preconceived framework of assumptions'[20]. Instead greater emphasis should be placed on the native 'Celtic' culture of Roman Britain (see also Millett 1990, 172-3, 180) and the province's unique place in the Empire (Hingley 1989, 3). However, despite this move towards recognising an indigenous influence in the growth of small towns, Hingley's 'local centre' (?small town) remained typically 'civilised', often walled,

[20] This refers to the traditional antiquarian view that rural settlements were 'native' and villas and walled-towns were expressions of 'civilised' Roman culture.

an ‘island’ of at least 10 hectares, on a major road, surrounded by a rural landscape and engaged in marketing produce from villa estates (1989, 26-27). Hingley attributed market centre functions to local centres on the basis of conjectured military trading post origins and in doing so constructed a role in the economic growth of Roman Britain (1989, 27-28). Hingley also drew on later medieval market centres to fill in gaps, assuming regular markets and fairs took place (1989, 113-114), despite the lack of Roman period evidence for this; a strategy challenged in this present study.

2.5 Regional studies

A limited number of regional studies featuring small towns have been attempted (e.g. Todd 1991; Condron 1996; Booth 2007; Taylor 2013). Early studies tended to emphasise a distinction between native settlements and Roman settlements with implicit differential in status. Todd (1991) argued that the native way of life and the existing settlement network of the *Coritani*[21] continued under Roman occupation much as it had been in the LIA period[22], alongside the post-Conquest development of the small towns such as *Irchester* and *Margidunum* and the Roman *civitas* centre of *Ratae Coritanorum* (Leicester). Booth’s volume dedicated to the Upper and Middle Thames Valley region, notably expands the discussion to locate small towns in the context of other Roman, prehistoric and later settlements in this area[23]. More recently, greater emphasis has been put on understanding Roman towns in the context of the pre-existing IA physical, political and economic landscapes (Rogers 2011). In principle these two views are not mutually exclusive and are explored in this present study. Regional economic integration of small towns in regard to production and exchange of goods by local people (Esmonde Cleary 1989;Young 1986, 58-68; Rogers 2011, 47-71) has also received particular attention.

The ‘small town’ stereotype was not strongly challenged until J. Taylor argued that small towns had been perceived as too isolated and too fixed to the road network (2001, 58). More recently, Taylor has advocated that research on the growth of urban settlements would benefit from exploring the diverse contextual background of the LIA period (2013, 414). Taylor believes that ‘urbanism’ (as an attribute of town status) should be considered as an expression of power in the landscape (economic, legal, political and religious - and probably ‘Roman’). Whilst he cautions against the assumption that the Romans held that a

[21] The Coritani tribal people (now known as the Corieltavi) are held to have inhabited the East Midlands of Britain.
[22] Cf. papers by J. Creighton, J. Taylor and M. Millett (James and Millett 2001).
[23] This followed D. Miles’ earlier publications (1982) and collaboration with M. Jones (1979), on settlement in the Upper Thames Valley.

'civilised' province would need defining 'urban' settlements, he argues that enlightened research should focus on the nature of interaction in the landscape between urban and rural populations. Taylor demonstrated his ideas by comparing two carefully selected regions[24] and identifying trends in the movement of agricultural products and the nature of craft industries within an urban context, thereby contributing both to understanding small towns and the on-going debate about 'Romanisation'.

2.6 Individual small towns: grey and published literature

A number of stand-alone investigations of small town sites, for example Baldock (Stead and Rigby 1986), Shiptonthorpe (Millett 2006),Westhawk Farm (Booth 2008) and Heybridge (Atkinson and Preston 2015), have been published in the last few decades and the approaches used have informed this present study. Investigations of Dorchester-on-Thames (Frere 1962), Staines-upon-Thames (Jones 2010), Roman Braughing (Partridge 1981) and Roman Neatham (Millett and Graham 1986) are of particular significance and are reviewed in the relevant town chapters. Sites such as Hengrove Farm near Staines-upon-Thames have also been the subject of multi-period studies (Poulton *et al*. 2017). It is known that some reports on completed or on-going archaeological investigations have not been written up: no reports based on the annual training digs at Dorchester-on-Thames directed by P. Booth (Oxford University and Oxford Archaeology joint venture) are anticipated, but a report on Ewell (Surrey Archaeological Society) is awaited.

2.7 *Londinium* and Southwark

The case study towns have been chosen for their peripheral locations to the newly founded Roman centre of Londinium and a brief review must be included of the literature available for sites in the London area (*Londinium* and Southwark). These have tended to be developer-led projects: 1 Poultry (Hill and Rowsome 2011), the London Underground Jubilee Line extension (Drummond-Murray, Thompson, and Cowan 2002) for examples. The most recent Crossrail and Bloomberg site excavations are not yet extensively published. Material from older excavations can generally be found in expert papers or syntheses published in collections (Sheldon and Schaaf, 1978; Bird, Hassall and Sheldon 1996; Clark *et al*. 2008), in relation to particular areas such as the city hinterland (Perring and Brigham 2000) and focussing on the economy and settlement of Roman Southwark (Cowan *et al*., 2009). A chronological view[25] of the origin and development of early

[24] The well-developed East Midlands and the less well-developed north-west region of Roman Britain.
[25] Since writing this thesis, Hingley has published a review of the city for the whole Roman period in *Londinium: A Biography: Roman London from Its Origins to the Fifth Century* (see Bibliography).

Roman London (Wallace 2014: Dunwoodie, Harward and Pitts 2015) and discussion of the apparent decline in the Mid-Roman period (Sheldon 1975) has afforded points of reference for discussion of a possible market supply function connecting the case study small towns with London. As such the material in these publications provides a degree of contextualisation and data for comparison as well as a counter-balance in looking at small towns from the standpoint of Roman London.

2.8 Literature featuring the application of mathematical models to small town data

Research on Roman small towns has been dominated by qualitative rather than quantitative approaches, perhaps in response to the limitations imposed by inconsistent and sometimes poor quality archaeological data. Nevertheless, attempts have been made to quantify existing data with the aim of discovering settlement patterns or explain the distribution of goods (Fulford 1973; Hodder 1974a, 1974b). Pertinent to this study, Hodder and Hassall (1971) applied the Transport Principle version of Central Place Theory (CPT) to selected data on walled small towns with the aim of discerning a settlement distribution pattern and thence an economic determinant to their role. The findings apparently confirmed that the siting of walled small towns related more strongly to their positions on the main road system than to their potential as market centres. Millett also demonstrated that a pattern could be elicited from the distribution of small towns based on measures of size and distance (1995). Whilst this early study demonstrates some value in the use of spatial analysis models, this type of approach has attracted scepticism (Evans and Gould 1982; Grant 1986). Settlement distribution and marketing, the expression of choices made over time and at ground level, cannot be understood solely on the basis of quantitative analysis.

Quernstone fragment data (Shaffrey 2006) and pottery finds data (Fulford and Hodder 1974) have been obvious choices for mathematical analysis due to the quantifiable nature of the material. Conclusions based on regression analysis applied to Oxford fine ware pottery data (Fulford and Hodder 1974) are commonly cited as evidence for the role of small towns in market distribution. The interpretive choices made in this study favour a (centrally) organised pottery industry for which further evidence is lacking; little credence is given to the use of pre-existing native exchange networks. There is always a danger that a mathematical model may simply produce the 'expected' result(s), something the authors acknowledged. However, Fulford and Hodder were confident in one respect: that water transport (on the Thames River system) was crucial in the distribution of pottery from the centres of production around Oxford. This claim will be further considered in this study,

particularly in relation to the idea of the market centre roles of Dorchester-on-Thames and Staines-upon-Thames.

2.9 Geographical literature

The influence of ideas, approaches and methodologies used in Geography can be seen in much of the archaeological literature on small towns in Roman Britain, rooted in the interest in modern small towns as a study focus in the 'quantitative revolution' of the late 1950s (Putnam 2008; Cox 2014). Studies of this period evaluated contemporary small towns in terms of their functional bases, by the application of theoretical settlement hierarchy models: Christaller's Central Place Theory (and later modifications); Spearman's Ranking; traditional distribution theories, such as Nearest Neighbour Analysis. The following quote from a paper entitled 'The Functional Bases of Small Towns (Stafford 1963, 165), demonstrates the challenges faced in understanding contemporary settlements in Illinois, USA:

> First, logically, these small places provide basic connections between the dispersed agricultural populations and the agglomerated urban population. For the most part, such direct connections as do exist are through the goods and services which are provided in these small towns for the agricultural population surrounding them. Second, even if small towns do not fulfil their logical role of providing goods and services for a dispersed farm population, the fact remains that these small places exist and economic activities are performed in them just as they are in larger places.

These observations are echoed in respect to Roman Britain in the conclusion drawn by Burnham and Wacher that 'small towns, therefore, occupied a defined economic niche, even if it is but imperfectly understood' (1990, 44).

2.10 Most recent research literature

Online access to reports, especially the vast resources available through the Archaeological Data Service[26], specialist databases such as that dedicated to Gallo-Belgic pottery (Timby and Rigby 2007[27]) and digital mapping (Digimap[28]), have opened up the range of research data available. Also online, is the site material collected into an interactive database by the Roman Rural Settlement Project (2015-updated 2018) led by M. Fulford at Reading University. The accompanying literature (Allen 2014; 2015) and published volumes (Smith *et al*. 2016; Allen *et al.* 2017) provide expert analysis. The material for this project is derived from developer-funded archaeological excavations (post -1990); those pertaining to rural sites within 10 kilometres of Roman Braughing, Dorchester-on-Thames, Staines-

[26] Available from: http://archaeologydataservice.ac.uk/
[27] Available from: http://gallobelgic.thehumanjourney.net/
[28] Available from EDINA: https://digimap.edina.ac.uk/

upon-Thames, Ewell and Neatham, are common to both the RRSP and this present study. The RRSP differs in terms of its focus on rural economy and features only a few 'selected defended small towns' (Allen *et al.* 2017, 1). However, a number of Fulford's conclusions in respect to agricultural production and pottery distribution accord with those reached by this present study (2017b, 358-362).

2.11 Summary

The chronological structure of this review has served to demonstrate the development of ideas about small towns in Roman Britain and how the assumption of the market centre status has become established. Whilst powerful conflicting views are absent, the challenges faced in understanding small towns and their economic function are apparent. Early reliance on quantitative approaches borrowed from Human Geography have more recently given way to data-led approaches (e.g. RRSP) and digital analysis. Although this is a positive progression, data-led approaches still require reasoned interpretations and where conclusions cannot easily be drawn, modern researchers have returned to conventional wisdom. Unpicking the approaches and arguments of the literature has informed the conceptual approach to investigating small towns devised for this study and discussed in the next chapter: Chapter 3: Theoretical background.

Theoretical background

3.1 Introduction

This chapter draws on the literature reviewed in the previous chapter to explain how small towns in Roman Britain have been conceptualised in the past and how this background has informed the approach used in this present study. The critical concepts of 'small town', 'urban' and 'market centre' are discussed in relation to defining and understanding the research material. Always thought to have had a definable economic role, previous interpretations of small towns result from a number of strategies used to make sense of the archaeological material including: analogies drawn from the medieval period; modern geographical theories regarding settlement patterns and analytical approaches used in geography to investigate the distribution of goods as indicators of consumerism and trade. The longstanding interpretation of small towns as market centres is largely the result of a 'looked for' outcome concluded from a range of theories and approaches.

Contemporary Roman literature is devoid of any reference to small towns. Tacitus, in relating the Governorship of Agricola, mentions only that the Britons were encouraged to emulate the Roman way of life but does not allude to the foundation of towns for this purpose (*Agricola, Germania, Dialogus*). Nonetheless, it is generally believed that the development of towns was supported by Rome, but that small towns developed a different role to the *civitas* capitals[29] or *coloniae* in providing an infrastructure for the economy of the province. However, Jones has pointed out that, 'to create towns as economic units was a much more complex matter' in the Roman period than simply building the town (1987, 50) and represents a large investment of resources.

Despite the continued growth in archaeological data and the new tools available to process the material, understanding the results still relies on interpretation and this commonly relies on analogy to make sense of the data. Analogy is a basic tool and offers archaeologists an intuitive and practical approach (Shanks and Hodder 1995). However, analogy is really a second option, given that the first, contextual knowledge of where and how ordinary people lived in Roman Britain, is not available. Interpretation of data by means of analogy with contemporary societies (e.g. Roman Gaul), medieval or modern

[29] Champion (2014) is sceptical about attributing 'tribal' territory and population 'centres' to particular locations: the understanding of *civitas* centres equating to 'tribal' centres (*q.v.* Wacher 1966). The association of these centres with trade is derived from the attribution of tribal coinage, which may have led to misunderstanding of the status of settlements in the LIA period. Furthermore, Champion goes so far as to caution whether 'oppida' can be considered proto-urban centres at all.

periods permeates much of the literature concerned with small towns as market centres, reinforcing expectations of centralisation. Studies of Roman small towns have to date drawn heavily on post-Roman Anglo-Saxon market centres (Esmonde Cleary 1989; Rogers 2011) and the archetypal small town of the much later medieval period, despite Hingley's (1989, 114) warning against analogies drawn from societies not subject to external authority (in this case Roman). Neither should small towns be accepted as precedents for later and modern incarnations of small towns. Any idealised version of a small town market centre on this basis is unsafe: research into late medieval small towns has concluded that a significant amount of trading was carried out via socio-economic networks involving the residents of manor houses and farms, and not formally through local towns (Dyer 2000, 104, 107). A similar practice may have been the norm in Roman Britain. Thus it is argued in this thesis that whilst the use of a broadly analogous approach to interpreting, often slender, data is both hard to avoid and of value, this has led to limited success in the past in making a case for small towns as market centres. The response of this present study is to be wary of using this strategy as far as possible.

Similarly deductive reasoning has in the past been fundamental to the idea of small towns as market centres. Seemingly based on the major premise that small towns act as market centres, with the minor premise that certain individual settlements in Roman Britain can be described as small towns, the conclusion has been that small towns in Roman Britain acted as market centres. However, a problem lies with the major premise: it is not a universal truth that the role of market centre is intrinsic to small towns of any period, or in any region (Stafford 1963; Ebrahimzadeh *et al.* 2012). It cannot be safely reasoned in this way that small towns in Roman Britain acted as market centres. To avoid the fallacy, this present study employs inductive reasoning to arrive an evidence based understanding of the role of small towns.

3.2 The idea of small towns in Roman Britain

Roman literature[30] generally conveys little information about 'small towns' or the relationships between settlements in Britain. Strabo described temporary settlements defended by palisades, but these no later than the preconquest period (*Geography* Book IV Ch. 5). In Gaul, Julius Caesar's 'towns' were all defended sites, serving as points of power and refuge for local tribes people in the conflicts of the *Gallic Wars*. Tacitus' later documentation of Agricola's governorship of Britain adds nothing specific. The notion of a

[30] Used in English translation (Loeb editions) for this research.

'small town' is therefore not recorded by contemporary Roman literature. Neither does the label have a hard and fast definition in modern times, but by consensus is deemed a moderate-sized settlement representing a stable community, larger (in terms of population and area covered) than a 'village' but smaller than a large town or city. Clearly, such a settlement is relational and likely to differ in nature from one region, or historical period, to another.

In theory, one small town connects with other settlements forming a network: comprising physical, social and economic elements. In addition, a small town is seen as acting as a central place for a sub-network of dispersed smaller rural sites ('villages', 'hamlets', villas and farms) in an agricultural landscape or associated 'hinterland'. Thus most settlements are connected. The traditional role of the small town is thought to utilise this connectivity by acting as a collection point for goods to be redistributed to larger towns and to provide goods and services for the small town's residential population and locally dependent rural sites (Hingley 1989); queried by Millett (1995, 31).

Empirically, the identification and function of small towns are not always clear: theory is not easily supported by evidence. Modern small towns have long been considered problematic for this reason and have been the focus of geographical study since the 1960s (Ebrahimzadeh *et al.*, 2012). A seminal study, conducted by Stafford (1963), found that of over 30 small towns in Illinois the goods and services provided, as identified by a range of functions (e.g. gas station, church, food store, tavern), tended to be similar in all towns. Stafford concluded from this, in conjunction with similar studies carried out in the USA and New Zealand, that small towns were essentially goods and service providers to hinterland sites (1963, 174). Although market centre function for the collection of locally produced goods was not discussed, the marketing of imported goods (gas, food, insurance) to the local area does demonstrate the 'top down' economy typically thought to characterise small towns. This simple geographical characterisation of small towns underpins the archaeological theory which contextualises this present study.

3.3 The application of settlement models

Traditional geographical theory assigns small towns a place in a settlement hierarchy/system where settlements are grouped according to type (nominally based on population size and area). This conceptualisation also denotes a particular economic relationship between settlements on adjacent levels. Applied to Roman era settlements,

small towns are ranked beneath major towns and above roadside settlements (Figure 3.1) and functioned as collection/distribution sites for goods moving between producers and consumers. This simple organisation represents larger settlements as fewest in number and the smallest as most numerous. Villas must appear in the lowest tranche, as individual farm estates, but this does not reflect their economic status if it is assumed they had a role in producing and supplying agricultural products on a large scale. As a representation of civilian settlements, military sites and *vica* communities are not included although these would have had a role in the economy of the province.

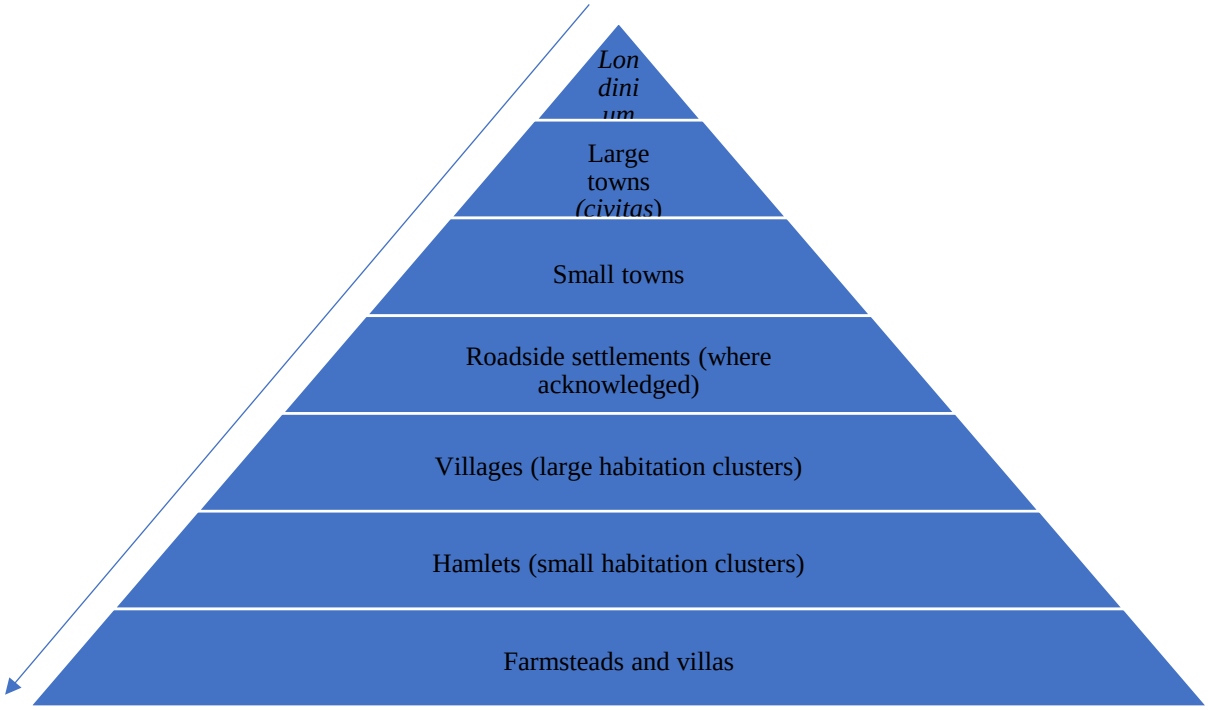


Figure 3.1 Pyramid diagram to show the relationship between settlement types in Roman Britain arranged in a traditional settlement hierarchy. Left arrow indicates increase in number of settlements in the landscape. (Source: author).

Settlement distribution models have also been borrowed from Geography to demonstrate how the theoretical hierarchy is played out on the ground. Models initially influenced by Christaller's 1933 Central Place Theory have been developed and applied to Roman Britain (Hodder and Hassall 1971; Hodder 1972, 1974b; Hodder and Orton 1976) in an attempt to understand the role of towns and the movement of traded goods. The work of Hodder (*ibid*) and Millett (1995), typical of leading Processual archaeology, focussed on space, resources, economics and distribution conducted over the 25 year period preceding the mid-1990s. Hodder and Hassall showed that Roman small towns in central England lay mid-way between larger settlements and that this pattern was roughly repeated around London: 'third-level' market centres forming a ring around London at a radial distance of 16-24 km, located between London and the 'second level' small towns (1971, 391-40, 7;

Orton 1997, 124; Abdy and Bierton 1997). This idea was adopted by Orton who specifically claimed Ewell and Staines-upon-Thames to be 'third-level' sites to Roman London (1997, 124), a significant factor in the choice of case studies for this present research.

The application of Central Place Theory to the reconstruction of ancient settlement patterns has raised a number of objections about the value of applying such an abstract and idealised framework to often incomplete sets of data. Evans and Gould have described this situation as archaeological data being 'forced into a priori frameworks' given that 'settlement patterns are distinct spatial expressions of cultural adaptation' (1982, 275). Hodder and Hassall's (1971) seemingly successful application of settlement distribution modelling to walled towns must be accepted in this light and exemplifies concerns about the use of this type of interdisciplinary approach voiced by Evans and Gould (1982). Although archaeology has relied on this type of deduction, acceptance of these findings has necessarily restricted the range of questions and limited potential conclusions.

More recently, a less emphatic view of the local economic landscape around Tienen (Belgium) has been developed by Martens who attributes a lesser degree of centralisation to the small town (2012, 275). Martens is not explicit about Tienen being a market centre, although she acknowledges the evidence for craft processing industries, imported luxuries and pottery manufacture for local and *civitas* distribution, she also stresses a level of self-sufficiency (2012, 297). It is this less rigid pattern of settlement distribution that is favoured by this present research.

3.4 The nature of small towns

The concept of a 'small town' in Roman Britain has long been debated (Todd 1970; Burnham and Wacher 1990; Millett 1992, 155, 192; Rogers 2011, 47), with individual preferences shown for terminology[31] and to a lesser extent definition. Whether small towns had sufficient 'urban' characteristics to merit the description of 'town' remains a moot point, given that 'what constituted Roman urbanism' (James and Millett 2001, 65) remains an important question. Reece's TCT (Things Called Towns) highlights the largely subjective nature of the terminology, dependent on what he calls the 'individual psychology' of the onlooker (1988, 69). However, wariness over definition does ensure

[31] Various equivalent terms have been encountered in the literature: 'township' (Richmond 1963 ,95), 'Small Town' (Millett 1995), 'local centre' (Hingley 1989, 25); and marking a degree of crossover, 'roadside settlement'.

continued interest in small towns rather than research being hampered by 'a belief that work already completed defines the only legitimate approach to these sites' (Millett 1995).

Burnham and Wacher have argued that the failure of scholars to agree on the criteria to define 'small towns' is down to a number of factors (1990, 1). Firstly, the four hundred year (approximately) Roman occupation period was lengthy enough to suppose that status, function and the size of many settlements necessarily changed over time. Secondly, that the nature of the archaeological record for small towns is at best patchy (Hingley 1989; Burnham and Wacher 1990) and much about these settlements remains to be discovered. Thirdly, the aims and views of the archaeologists and scholars excavating and studying these settlements are themselves subject to the academic ethos of the time.

In the past, settlements have been grouped together with no clear idea of their status or function. This has led Millett to argue that any research on small town settlements must first have secure knowledge of the object in order to produce meaningful results (1995, 29). Pragmatically, small towns have been subdivided on the basis of particular presumed dominant characteristics (such as defended or not), exemplified in Todd (1970), Smith (1987), Burnham and Wacher (1990) and Taylor (2007). Undeniably, sub-categories such as 'defended' or 'religious centre' are useful when dealing with an increasingly large number of sites, but this might be argued to give undue weight to these descriptors and thus constrain interpretation of the archaeological material. Nevertheless, Pitts and Perring caution against treating settlements as 'uniform phenomenon', rather each settlement should be treated individually (2006, 207). Most recently this debate has resulted in a call to challenge long standing assumptions about site type in order to progress understanding (Millett 2017; Haynes 2017). This present research accepts a pragmatic loose grouping of small towns (although the significance of traditional criteria are challenged) to emphasise the individuality of the case study towns.

The distinction is retained in this present research between a small town and a '*vicus*', where the latter settlement developed in response to the presence of a military base[32]. This is important in that early on Rodwell and Rowley argued that the origin of small towns could not be found in the local economy but must lie in the military influence of forts, however transient in the landscape (1975, 4-5). Rodwell and Rowley stated that 'our

[32]The term *vicus* (pl. *vici*) is used on the Continent to apply to all small towns, regardless of any military association. Some, like those in Lower Germany had a military origin but developed as market centres after the military base had gone (Gechter 1995, 196).

official conclusion is that the great majority of small towns in Roman Britain owed their sites to official action of some sort'[33] (1975, 7). Current thinking favours a local cultural response to change over a military origin for small towns, although the remains of a temporary military camp may be hard to determine. IA activity has been found to predate the foundation of many small towns. Early Roman Braughing, for example, developed relative to a decline in the LIA settlement close by at Gatesbury. These early responses to change after the Roman conquest are explored in relation to the economic role of the case study small towns in Section 2.

3.5 Roadside settlements and small towns

One further differentiation is maintained in this study, between 'small towns' and 'roadside settlements'. A small town is generally thought to comprise a broad area of built-up land around a nucleus with a small proportion of buildings/plots fronting a road. By contrast, roadside settlements tend to be linear, although a small nucleus may be discernible in some instances (Willis 2016), with a built-up area straddling the road but not spreading beyond more than perhaps 200m[34]. Roadside settlements come with an expectation of archaeological material relating to local manufacturing, commercial activity linked to the road and the likelihood that the settlement inhabitants farmed the land (Pitts and Perring 2006): arguably they were more reliant on the a road for their livelihood than small town communities. Ranked below small towns in a settlement hierarchy (Figure 3.1), the social and economic relationship between the two ranks has not been explored. Market centre status is traditionally more closely associated with small towns than roadside settlements.

It is difficult to distinguish between a small town and a roadside settlement on the basis of typical size (population or hectares of built-up land). No settlement has yet been fully excavated to show all features or boundaries: many Roman period settlements have been partially built over, quarried out or flooded, denying any chance to appraise them in entirety. Ultimately, whether Roman Ewell for example, is labelled a 'small town' or 'roadside settlement' reflects, as noted in Chapter 7, changes in fashion and the ambitions of the archaeologists who have documented the settlements, rather than adherence to a template.

[33] 'Official action' does not necessarily mean military in origin.
[34] Roadside settlements have on occasion been referred to as minor nucleated settlements in some literature.

Regardless of distinction, the development of both small towns and roadside settlements suggests a strong 'pull' factor in relocating people to land beside the major Roman roads. This marginal land may have been deemed public land (Bailey 1923, 155) or possibly contractually available in return for road maintenance (Black 1995). The latter arrangement would have benefited the Roman authorities by making local communities visible for tax purposes and effective government and may account for the regular (assigned) roadside plots observed in small towns. The pull or push factors which influenced population migration are uncertain and different explanations are theorised in the literature (cf. Willis 2007, 161-2) as contemporary documentary evidence is lacking and archaeological features and finds can be ambiguous.

Alternatively, the local population may have been coerced by the Roman authorities into settling the land adjacent to the new road network; there are modern examples of this practice (Porath 2002; "The 'Road Allowance People'" no date). Modern government founded settlements on new roads constructed through remote areas are often characterised by strip buildings on regulated plots, built to relocate the local population for the purpose of maintaining and servicing the new routes. The new residents of the roadside settlements continued traditional agricultural practices, at the same time adapting to provide basic services and realise low-level trading opportunities with the new road traffic. This modern, indigenous response to change seems to echo that of Early Roman Britain. Creighton's observation[35] that new settlers tend to adapt the new environment to replicate the older more familiar one (2006, 93), adds a further dimension. Cautious use of these modern analogies in association with archaeological evidence can contribute to understanding small towns as an expression of the indigenous population in Roman Britain, and the economic activities which might be expected.

This leads to an important point: if a small town represents the collective residences of a farming community, in itself this might account for the self-limiting size of these settlements; expansion would have been limited by suitable agricultural land nearby (White 1977, 7; Millett 1995). Significantly, this would also account for small towns not acting as market centres: residents would have been able to provide for most of their needs in terms of products and services; trading would have been minimal. A settlement of this nature would also explain the general lack of official buildings found in small towns.

[35] This is based on an anecdote drawn from a social housing project in Honk Kong in the 1980s.

3.6 Urban characteristics and small towns

Urban characteristics are synonymous with the idea of a town and archaeological evidence for residential areas, infrastructure and commercial activity closely impacts on the concept of small towns as market centres. The concern to define small towns as 'urban' is derived from the belief that the Romans actively supported the development of towns in the provinces of the Empire as key to the dissemination of Roman social and cultural values. A positive correlation would imply that small towns had important roles in 'Romanising' Britain and in the economy of the Empire.

The urban nature of small towns in Roman Britain is generally thought to differ from large towns, lacking both a planned grid system of streets and the kinds of formal civic buildings that have been identified in the urban environments of major towns, *coloniae*, or *civitas* centres (Burnham and Wacher 1990, Millett 1995, Willis 2007). Contrary to the small towns of Gaul and northern Europe which often appear to have contained formal structures such as *fora*, theatres, colonnaded streets and monuments, these structures have rarely, if at all, been attested in the small towns of Britain. The unplanned and varied character of small towns has led to the reasoning that these settlements most likely developed from native rather than Roman expressions of urbanism (Millett 1995, 33; Willis 2007, 162-3). Apart from apparently regulated roadside plots, there is little evidence to justify the traditional view that these towns were imposed on the landscape by Roman authority.

Archaeological evidence for rectangular buildings is generally understood to include the remains of residential buildings[36], workshops engaged in small-scale industrial work (metal or leather) or shops fronting onto streets (Burnham and Wacher 1990, 46). The economic functions attributed to these remains has strongly influenced the concept of small towns as commercial centres. The imposition of these regular plots beside main streets in conjunction with the organic layout of the internal streets suggests that the urban morphology of small towns may be explained as the local response of the indigenous population to both enforced changes and opportunities arising under Roman authority (Willis 2008).

It might be expected that small towns were to at least some extent involved in manufacturing and small industry[37] as in Gaul (Rorison 2001; Martens 2012) and, because

[36] See E.J. Owens (1996).

[37] M. I. Finley devoted a chapter in his book *The Ancient Economy* (1975) to consideration of the economic relationship between town and country. Relying largely on ancient literary texts for his information, Finley arrived at the carefully reasoned theory that towns (cities and small towns) did not manufacture goods for

of the density of population, have benefited from shared services such as organised access to a water supply.[38] Generally, 'urban' occupations are considered to be non-agricultural and workers specialise in one occupation, providing goods or services for sale or exchange.[39] In Roman Britain it has been proposed that the economic activity of a town was carried out in specialist 'zones' of manufacturing or industry (Esmonde Cleary 1987). However, evidence for zones is scant for the case study towns in this research and this idea could not be explored.

Millett has cautioned that debate over the definition of small towns is too concerned about identifying sites which have 'urban' characteristics (1995, 29), raising the question of whether 'urban' is a useful adjective in this context?[40] A modern 'urban' area of dense buildings (residential, commercial and those providing services such as roads and a water supply) and residents occupied in non-agricultural jobs cannot be directly related to the small towns of Roman Britain. However, as the idea of 'urban' is so closely tied to that of a 'town', if unwarranted this also belies the use of the label 'small town'. The practice of applying 'urban characteristics' Millett has suggested might lie in what he terms the 'machismo' effect:[41] an archaeologist anxious to attribute greater importance to a site succumbs to describing it as a 'small town', when this may not be securely supported by the evidence (in Brown 1995, 30). A definition of 'urban characteristics' in respect of the small towns of Roman Britain remains to be found in the interpretation of archaeological features and finds (Millett 2001, 66). However, against this background this present study finds the 'small town' label justifiable provided that it represents settlements defined by a group of characteristics and that the term 'urban' is used sparingly.[42]

Millett has recognised that what constituted a 'town' in Roman Britain will have varied considerably according to geographical context and have changed through time, and this is particularly resonant for this present study. Taylor (2013) has argued against the past approach to 'urbanism' and the piecemeal interpretation of archaeological remains, arguing that a greater significance be given to the countryside context, an idea advocated earlier by Millett (1995, 30). Taylor's approach requires that more importance be given to the role of the existing LPRIA social and cultural landscape in establishing the pattern of Roman

export. No ancient cities expanded as the result of successful manufacturing. So, whilst trade brought goods into the urban environment these were not exchanged for locally produced goods.

[38] Very little evidence has been put forward to support Roman water supplies to small towns (Burgos, 2001).

[39] For exploration of this idea in Roman Gaul (King 1995, 190).

[40] Some years later Millett (2001, 65) suggest a fundamental 'consideration of what constituted Roman urbanism' was needed.

[41] Millett has confessed that he may indeed have been guilty of this at Neatham.

[42] The term is retained in the chapter on urban morphology for clarity only.

urban settlements. This has gone hand in hand with the explosion of new discoveries since the advent of the PPG16 legislation and its successors from 1990 which has emphasized the variety in settlements.

3.7 Small towns as market centres

A modern 'market centre' is defined by a retail focus where goods are collected and made available to consumers; sometimes with a wholesale role in redistributing goods to retailers at other locations, while there may also be an element of product processing or other 'value added' prior to marketing. Historically, a market town is thought to have acted as a centre for the purchase of goods (for money or bartered for other goods) available from attendant itinerant traders, stalls selling local or imported produce, or shops. This static, centrally organised distribution of goods and services (Hodder and Lee 1974, 136) is distinct from a 'market place' which is defined as a 'public gathering of buyers and sellers meeting at appointed locations and a regular times' (*ibid*, 136) as this may be applied to religious sites and gatherings (Smith 2001), such as at Harlow Temple (France and Gobel, 1985). It is the 'market centre' characterisation and contingent role in the economy of Roman Britain which has driven the tentative identification of archaeological features in small towns as shops and market places, and major roads as supply routes. Strong supporting evidence is lacking however and this present study considers that consumption in Roman Britain[43] did not depend upon centralised marketing but was an extension of earlier tribal marketing which consisted of goods traded between elites through a system of embedded exchange (Cunliffe 1994b).

This idea of small towns as market centres originated in Richmond's work identifying small towns from early aerial photographs in the 1960s. These images appeared to him to show the clear urban features of market centres, 'all possessed numerous shops and workshops': portrayed as bellied-out at the centre with narrow frontage commercial buildings incorporating first floor domestic space, along the roads (1963, 96). This 'ideal' (Rivet 1964, 126) has persisted, associated retrospectively with archetypes from later historical periods. Many Roman period small towns did go on to develop as market centres in the medieval period, Staines-upon-Thames for example is known to have had a market at least as early as 1218 (Poulton 2002, 1). However, to accredit this function to the earliest incarnation of a settlement, often for the duration of the Roman period is unsafe and simply an assumption (e.g. James and Millett 2001, 2). Traditionally small towns are

[43] For villas and consumerism (Martins 2005).

conjectured to have naturally developed a market centre function to serve the local area (Esmonde Cleary 1987, 187; Booth *et al.* 2007, 375) with formal market places only at 'successful centres', such as Godmanchester and Towcester (Hingley 1989, 91).

Hingley's approach however argues that Roman era local centres formalised existing pre-Roman tribal market networks such as those of the Trinovantes and Dobunni of southern Britain, to provide market centres within one day's walk for the rural population (1989). This sequence is difficult to defend. The link between IA hill forts (e.g. Wessex) as mooted centres of redistribution (Cunliffe 1994b, 73, 82) and, after their decline in the 1st century BC, the *oppida* (Cunliffe 1994b), followed by the development of small towns of Roman Britain, is oversimplified.

However, 'an interactive relationship between town and countryside is to be expected, even if this may not be directly visible via archaeological evidence' (Willis 2007, 145). In this vein, a 'hinterland' within a day's walking distance (a radius of 10 kilometres) has been applied to the small towns of this present study to include all potential urban-rural interaction. This economic tie (Millett 1995) is thought common to most towns, even medieval London increasingly relied on agricultural production from its hinterland and in turn exerted influence over this area (Galloway 1990). This concept forms the basis for the designated focus areas around the small town case studies.

There is meagre evidence for large towns in Roman Britain being part of a market centred economy. Recently, 'rural investigations in the hinterland of Silchester came to a similar conclusion [to that relating to London, Colchester and Wroxeter] that this major town did not play a significant role as a regional market centre, particularly in the early Roman period' (Fulford and Holbrook 2015, 202). The idea of a network of market centres relies on goods and services being purchased or exchanged at particular points in the landscape such as large villas (Hingley 1989), towns, temples or open areas hosting regular fairs or markets (De Ligt 1993). Whether this type of economy was central to that of Roman Britain remains part of an ongoing debate on the province and the Empire as a whole (Finley 1975; Millett 1990, 169; Mattingly 2006; Rogers 2011, 37).

3.8 Archaeological evidence for trade in relation to small towns

There is very little documentary evidence relating to the means of distribution for trade and exchange in Roman Britain and which might relate to the role of small towns as market centres. Ancient sources for Roman Britain refer to tin being exported to the Continent at

the end of the 1st century BC (Caesar *Gallic War* V, 12; Diodorus Siculus V, 22); in a lengthier list Strabo (IV, 5.2) includes iron, silver and gold, cattle, hides and corn[44], slaves and dogs; items reiterated by Tacitus writing in the 1st century AD after the Conquest (*Agricola* 10-12). The early 4th century AD Edict of Diocletian adds woollen capes (*birri*) and rugs (*tapetia*) (xix.28-35, 48). There are however no lists of market towns, no itineraries left by tradespeople or inventories of goods from *negotiatores* and *mercatores* which might provide more information on how goods were traded and how the economy worked.

The *Vindolanda*[45] writing tablets indicate that specialist wholesalers/retailers may not have been the norm and that goods were requested (for personal or military purposes) through personal contacts (relatives, slaves or acquaintances) on the promise of payment or of goods in exchange. Fragments of contracts excavated from the Bloomberg site (London) have provided evidence of trade brokered by individuals with *mercantores* or *negotiatores* (Tomlin 2017). Whilst it is unsafe to extrapolate from these few examples that all trading in the province took place is this way, this does echo the embedded exchange system thought to have been organised by IA tribal elites (Cunliffe 1994b). The prevalence of interpersonal exchange would help to explain why archaeological evidence for the marketing and distribution of goods remains difficult to recognise.

The traditional approach has focussed on the use of archaeological material, primarily pottery because it is ubiquitous to excavation sites (and field walking), as proxy for the distribution and marketing of goods in Roman Britain. The premise here is that different types of goods, from different producers in different locations, would tend to follow the same transportation routes (Fulford 1991) and be part of a marketing system. Consequently, attention to pottery trade routes (Fulford 1973; Hodder 1974b; Fulford and Hodder 1974; Taylor 2005c) has been taken to indicate that a variety of other commodities may have 'piggybacked' this method of distribution. This idea is reconsidered in this present study.

Much of finds research has come to rely on quantification as a means of dealing with increasing amounts of data, offering a means of comparison between sites but tending to

[44] It is possible that these items were assumed or expected by the ancient reader rather than factual, as Strabo notes a few lines later that the indigenous people 'have no experience in gardening or other agricultural pursuits' (IV, 5.2).

[45] http://vindolanda.csad.ox.ac.uk/ (e.g. *Tab. Vindol*. **II** 181, 186, 192, 207, 309) and http://vto2.classics.ox.ac.uk/ [both Accessed 31.10.2017]

focus on common patterns.[46] This approach tends to produce results removed from context and is therefore difficult to relate back to small towns and marketing. The current trend attentive to 'object biography' may provide a more nuanced understanding of the role of traded items in the economy in the future (Gosden and Marshall 1999), but currently accessible data generally only provides limited detail and sometimes without context, therefore limiting the potential for understanding trade. Against this background, the systematic review employed in this study has aimed to reassess the potential of this material in evaluating the conjectured role of market centre for small towns.

3.9 Summary

The theoretical background to this present study has been shaped by attempts to identify and define small towns in Roman Britain. The role of market centre attributed to these settlements is largely the result of this process. Small towns did not exist in isolation in the landscape of Roman Britain (they were an expression of it) any more than they have done in any other period in history, but whilst their existence is a response to the needs of the population and the constraints of natural topography and the limitations to movement, the extent of their economic function is less obvious. Given that archaeological evidence describes a static picture of the past (structural remains and the terminus of people and goods), it is inevitably a challenge to reconstruct the dynamic economy of which they were a product, without recourse to the familiar system of centralised marketing.

This present study argues that whilst the theoretical background provides useful points of comparison to current understanding of small towns this does not do justice to the material evidence. It is thereby advocated that there is value to be gained by a fresh interpretation of the data which has underpinned past theories and approaches. Key aspects, such as nodal sites and peripheral locations to *Londinium*, have been used to inform the choice of the five case study towns of this research. This is with the aim of reviewing the extent to which these settlements may have operated as market centres or been engaged in alternative economic activity. The five small towns are not seen as representative of all small towns in Roman Britain, but are used here as proxies to explore alternative interpretations. The aim is to arrive at a more nuanced understanding which more closely

[46] According to Lodwick, the Roman Rural Settlement Project standardised data in order to be able to compare samples (2017, 13) and determine patterns, however the choices made by researchers as part of this process may unduly influence the findings.

fits the data available. The methodology employed to achieve this is detailed in the following chapter.

Methodology

4.1 Introduction

This chapter sets out the methodology chosen to appraise small town market centre status in light of the theoretical background: namely a systematic review. The standard elements of this type of methodology are outlined with an explanation of how they have directed and informed the research process. The application of the systematic review to the archaeological material is explained in terms of the two research objectives: firstly, to evaluate the claims for market centre status (Section 2); secondly to assess targeted data to attain a fresh understanding of the economic role of the case study small towns (Section 3).

4.2 Why a systematic review?

The reason for choosing a systematic review lies in the suitability of this methodology for appraising a large amount of secondary material for the purpose of meeting the two research objectives. The identification of any bias in the material is inherent in the methodology; pertinent in that this thesis challenges the extent to which the evidence can support the conventional wisdom of small towns as market centres. A systematic review provides a thorough method for assessing a range of textual and numerical archaeological material, taking into account variations in quality, quantity and detail. Thus, material can be collected according to designated criteria and stored, synthesised and filtered to elicit common elements and individual characteristics. In this way a systematic review has been used to produce quality assessed data sets for each of the case study towns and hinterland sites. The subsequent findings and the conclusions drawn have been presented with regard to the nature and limitations of the data in meeting the objectives and overall research aim. The systematic review methodology as applied to this present study is detailed below.

4.3 Material sources

The targeted material sources from which data have been extracted has included published and grey literature, site reports, studies of single or multiple sites and compilation works. Hard copies of material have been accessed through specialist libraries: Institute of Classical Studies, Institute of Historical Research, Kent University and Surrey Archaeological Society. On-line access was used to research grey literature (unpublished fieldwork reports) held by the Archaeology Data Service (produced by professional companies and local archaeological associations), regional Historic Environment Records (HER), data published in journals (*Internet Archaeology*, *World Archaeology*, *Britannia*) and a range of websites including the training website for Dorchester-on-Thames and the

Epsom and Ewell History and Archaeology Society (EEHAS) site for the Ewell excavations. In a very few instances data directly provided by an excavator has been used.

For practical reasons (data collection and mapping), a radius of 10km has been artificially set around each town to include all contemporary excavated sites[47] (active for a least a short period between AD 43 – 410) and close enough for potential regular interaction with the small town. The developer-led reports from rural sites within these hinterlands have also been used in the Roman Rural Settlement Project.[48] This has offered an opportunity to compare the use of this same data within the context of the different perspectives of the two studies.

A very small number of archived paper reports have not been directly accessed due to limitations on permissions and the time frame of this research; it was not felt that this would be detrimental to the review. Where known to have useful data such reports have been obliquely acknowledged. Material sources were only disregarded where there was no specific data or excavator comments relating to finds of agricultural products, corn driers, quernstones, pottery or Roman period features which might relate to the study focus. In summary, the sources used fall within the following categories:

- Compilation and specific works on small towns in Britain and, to a small degree northern parts of Gaul, along with publications on the main excavated sites in London, particularly Southwark and the City, which have been drawn on for comparison.
- Publications and studies covering specialist areas used to contextualise and inform the interpretation of the data. These include expert opinion in publications and papers on quernstones, corn driers, articles on farming and agricultural products (farm animal and cereal), and the huge body of knowledge available on the pottery industries of Roman Britain and the Continent.

In order to collate, place, process and map the archaeological data current digital mapping techniques have been used. A variety of data sources have also been accessed in order to

[47] Sites vary in complexity from remains of enclosure ditches and small areas of debris from agricultural or industrial activity to complex farm sites.
[48] The project conducted by The Archaeology Department at the University of Reading and Cotswold Archaeology collating and investigating the contribution of developer-led archaeology to improve knowledge of rural Roman Britain, to date this has resulted in an on-line database and two published volumes (Smith *et al*. 2016; Allen *et al*. 2017).

establish the geo-environmental character of the archaeological sites and localities under examination. Hence throughout the study complementary data from the following websites has been used:

- Ordnance Survey Map of Britain – 6" interactive topographic map displaying data from 1842-1952[49] - providing:
    - A less built-up view of the case study areas than modern OS maps - the ancient landscape and man-made features are more easily distinguished
    - National Grid references for site locations
    - Straight line distances in km measured from small towns to rural sites
- British Geological Survey (BGS)[50]:
    - Information and maps detailing the geological resources and landforms in the case study areas
- Cranfield Soil and Agrifood Institute: Soilscapes[51]:
    - Detailed soil maps for the case study areas
    - Information on natural water conditions and native plant species
    - Modern agricultural land use
- ArcGIS software (PC[52] and on-line[53]):
    - Digimap[54] (University of Edinburgh) online mapping service
        - Ordnance Survey downloadable map data
        - Guides to constructing GIS maps and data displays (webinars)
    - Topographic background maps
    - Roman road network in Britain: McCormick *et al*. 2013 - Roman Road Network (version 2008) DARMC shapefile based on data in the Barrington Atlas[55]

4.4 Assessment of material sources and identification of bias

Material sources differ in terms of the amount of useable data, from older reports produced by local archaeology societies with limited expertise and funds, to those produced since the 1990s by commercial companies. The latter, although better funded, larger scale, and

[49] http://maps.nls.uk/os/6inch-england-and-wales/ [Accessed 2.10.2017]
[50] http://www.bgs.ac.uk/ [Accessed 2.10.2017]
[51] http://www.landis.org.uk/soilscapes/ [Accessed 2.10.2017]
[52] Under licence through the University of Kent
[53] Open Source material
[54] https://digimap.edina.ac.uk/ [Accessed 16.10.2017]
[55] https://darmc.harvard.edu/data-availability [Accessed 2.10.2017]

involving specialist archaeologists and professionally produced reports are, at the same time, constrained by the time and scope allotted by developer-funded contracts. Not all the material from old or new sources is accessible to the public: societies restrict access through subscription/membership and private contract reports may be withheld from public view. The information may be sensitive in some way, valuable, or relate to an ongoing project where the data will be more appropriately displayed within the context of full publication.

The origins, scope and quality of the data used in this study have been intimated in the Literature review and Theoretical background chapters. An important concern in using the secondary data has been to assess the integrity of the findings and claims made in the original material. In some sources partiality towards particular interpretation (bias) is fairly clear, but in others not, ultimately this impacts on the strengths and limitations of the findings. The potential for bias, particularly where the excavator(s) have expertise in a specialist field or identify with a particular academic agenda, has been noted where appropriate in the review process. It is well-known that archaeological reports may take years to reach publication due to the requisite of reporting large amounts of information involving the necessary input of a variety of expert analyses. Incomplete reports occur, generally due to time and financial constraints; in these circumstances finds data can have been lost or omitted.

4.5 Data inclusion

In order to assess the claims relating to small towns as market centres and open up the evidence to alternative interpretation, a ‘first principles’ or data-led approach has offered the greatest potential. To this end, as many reports and studies as possible relating to the five case study Roman towns and their hinterlands have been included in the systematic review. The retention of even small amounts of data can be of value to a synthesis and help build up a picture. The use of the author’s subjective assessment in this respect is mitigated by the very small amount of data not included.

This inclusive approach contrasts with the majority of studies which tend to extrapolate general conclusions from a very small number of well-documented data-rich archaeology sites. The intention in applying a systematic review is to realise the potential of the data as it exists, even if this means arriving at a more nuanced, less emphatic picture. In the

interests of minimising the influence of value judgements, any degree of social status attributed to a particular site has been noted but not used in weighting analysis.

As stated, the data extracted for this study includes both qualitative (observations or descriptions) and quantitative information (e.g. agricultural product remains and pottery assemblage analyses). Quantitative data have been collected and recorded in spreadsheet cells (Microsoft Excel) as has qualitative data where brevity allows; necessarily extensive text has been recorded in complementary notes (separate documents). Great care has been taken to retain the integrity of textual data where this has been paraphrased, summarised or quoted and it has been duly cited. In addition to extracted data, fields have been incorporated into the spreadsheets derived from contextual sources (e.g. soil data) and newly determined by the author (e.g. distance between individual rural hinterland sites and the central small town).

In retrospect, it may have been more efficient to construct and manage a database (e.g. Microsoft Access) to store all the data, rather than creating separate documents and spreadsheets, thereby saving some repetition of tasks and making comparisons easier. Nevertheless, spreadsheets have been an effective choice for the analysis and presentation of data included in this study.

4.6 Organization of the data

Preliminary research was carried out through extensive background reading in order to identify which archaeological features and categories of finds offered the greatest potential for investigating the thesis question. The finds categories chosen had the merits of being regular discoveries and therefore suitable for synthesis. Targeting this material guided the data extraction. Additional data and omissions in the material (largely relating to geographical context in the site descriptor group) have been supplied by the author from the sources listed above. The data collected was grouped in the following way for each of the five case study small towns and their respective hinterlands:

- Site descriptors: National Grid locations, distances (km) between the small town and rural sites and *Londinium*, major roads and waterways; settlement duration, character, size of built up area (where estimated).
- Details of specific claims for ‘market centre’ function and any supporting evidence.
- Archaeological features which may relate to the economic role played by the site, including strip buildings, enclosed and defined open areas, quays and kilns.

- Excavated finds pertaining to agricultural products (pastoral): animal bone assemblages for cattle, sheep/goats, pigs and horses, leather and wool working.
- Excavated finds pertaining to agricultural products (arable – cereal crops): wheat (spelt, emmer and bread) and barley; malting.
- Excavated remains of agricultural features identified as corn driers, threshing areas, field boundaries and stock enclosures.
- Finds of quernstones (whole and fragments), and recorded sources.
- Pottery finds – organised into subcategories of locally produced, regional products and those imported from the Continent; further subdivided according to source.

Within each of the above groupings data has been organised, as far as possible, into chronological periods: Early Roman (AD 43-150), Mid-Roman (AD 150-250) and Late Roman (AD 250-410) with the addition of pre-Roman/LIA material where relevant.

As a data-led method, specific fields were determined during the initial stages of the collection progress and refined with experience. It was necessary to return to the original sources in many instances to retrieve additional data, when it later became clear that this would be useful to the addressing the hypothesis. Although revisiting source material was time-consuming it had the positive aspect of acting as a double-check, ensuring thoroughness and accuracy.

4.7 Data analysis

Analysis of text and spreadsheet data was carried out in two parts according to the two thesis objectives of assessing market centre claims and investigating an alternative economic role for the case study small towns. Firstly, specific market centre claims were appraised in terms of the extent to which the proffered evidence justified the claims (Section 2: Chapters 5-9). Further investigation was made into the influence of later historical and modern market centres on interpretation of the Roman material. Secondly, the data collected was synthesised and filtered to identify common elements and highlight any relational links with other evidence. This was conducted in respect of urban morphology, urban-rural relationships, livestock production, cereal production, quernstone and pottery finds (Section 3: Chapters 10-15), with the objective of identifying an alternative, evidence based economic role for the towns. The process of reviewing this data specifically took into account the following:

- Potential correlations between different fields in a data set (e.g. crops and soil type)

- Review of data in light of studies in specialist fields of archaeology (e.g. Roman pottery industries and research into distribution patterns)
- Comparison of small town site data was made with rural site data, to determine the extent to which local or imported goods might have been traded between the towns and the residents of the countryside
- Consideration of selected data from sites in *Londinium* and Southwark, and Silchester, in order to gain an insight into whether the small towns were acting as redistribution centres for goods supplied to Roman London or other large centres.

The data analysis also involved the construction of the following:

- Bar graphs and pie charts to show summarised data and highlight trends
- Maps created using ArcGIS software to show site locations and distribution, and relative changes in site activity over time (Early/Mid-/Late Roman periods).

At all stages of analysis, it was deemed important to draw attention to assumptions recognised in the source material and to be clear when referring to data which was uncertain or the meaning of the original text was unclear. The absence of expected evidence was also noted and rationalised where possible.

4.8 Findings and conclusions

The findings of the systematic data review in regard to the two thesis objectives appears in the individual chapters: the extent to which market centre claims can be justified (in Section 2: chapters 5-9) and the evidence based interpretation of data offering an alternative understanding of the small towns (in Section 3, chapters 10-15). These are further discussed in relation to each other in Chapter 16.

The conclusions reached regarding the first objective have been based on reconsidering the evidence in light of the influences which appear to have urged the claims for market centre status. Those regarding the second objective are the result of the detailed review of the evidence chosen as most likely to have made a significant contribution to market centre activity, if this existed. Together these conclusions amount to an important reassessment of the five case study towns with implications for understanding other small towns in Roman Britain, and are discussed in the Conclusions chapter.

SECTION TWO: the five case study small towns

Roman Braughing

5.1 Introduction

This section comprises individual chapters appraising the specific market centre claims for each of the five case study small towns, beginning with Roman Braughing. Each of these chapters examines the origin and geographical context of the town and the archaeological attention (interventions and references in literature) it has received, before reviewing market centre claims and the impact of later historical references on perception of the settlement. The purpose of this approach is twofold. Firstly, to demonstrate that market centre claims have been fleshed out from meagre evidence. Secondly, that there is a range of evidence available with the potential for providing a closer understanding of the economic function of these towns, the data for which is reviewed in detail in the later section of the thesis.

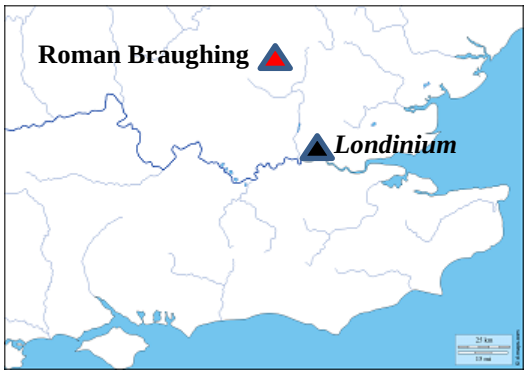


Figure 5.1 Location of Roman Braughing in relation to London (d-maps.com)

Roman Braughing lies north of London (Figure 5.1) around 1.5 km to the south-west of the modern village of Braughing, Hertfordshire (TL 3955 2531). On the Ordnance Survey map (OS 194) this area is to be found labelled 'ROMAN TOWN (site of)' and 'Wickham Hill' (Figure 5.2). The town has been identified with Roman *Durcinate* listed on the Antonine Itinerary (East Herts Archaeological Society Transactions Vol XIII, II, 101); if so, the town was of some note at this time.

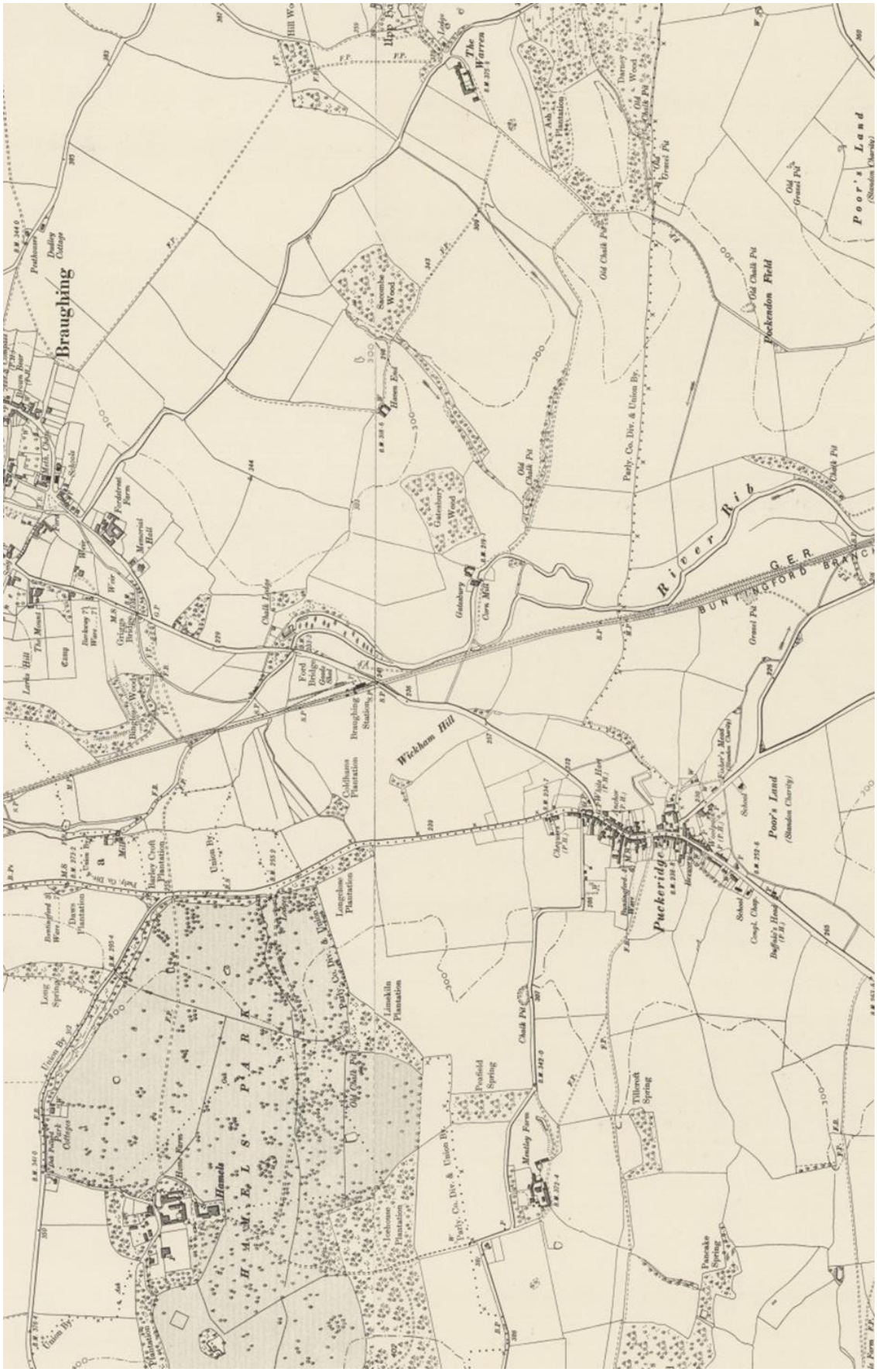


Figure 5.2 Roman Braughing location on Ordnance Survey 6" map England and Wales 1842-1952 (National Library of Scotland Creative Commons Attribution -NonCommerical -ShareAlike (CC-BY-NC-SA) licence.)

The area was densely populated during the IA[56] and the early population of Roman Braughing may have drawn settlers from the nearby settlement of Gatesbury[57] to the east. The high ground of Wickham Hill was settled in the Roman period as far as the line of Ermine Street (Burnham and Wacher 1990, 103-110), extending for less than a kilometre along the valley. During the early 1st century AD the settlement focus was on Skeleton Green where rectilinear buildings and high levels of imported pottery are thought to denote migrant settlers probably from Gaul (Partridge 1981). The name 'Wickham' (and 'Wickham Spring' to the south-east) has been thought to confirm an etymological link to marking the site of an early *vicus* settlement (Rodwell and Rowley 1975, 98-99). In this case a military influence might be expected as an early stimulus to economic development at the site, but no fort has yet been discovered. For the most part, the site of the small town has not been built over since the Roman period and today comprises largely fields and hedges (Burnham and Wacher 1990, 106).

Initially the late 1st century AD settlement comprised Skeleton Green and at least a number of buildings in the centre of Wickham Hill. To the south of Skeleton Green further buildings were constructed close to Ermine Street during the 1st and 2nd centuries AD (Stead 1970), from here the town then spread back eastward across the remainder of Wickham Hill. By the 3rd century AD occupation had become concentrated on the east side (Potter and Trow 1988; Thompson 2005) expanding along the valley bottom of the River Rib. Subsequently, the town appears to have declined by the Late Roman period. Beyond the small town to the west, other than *Verulamium* (St Albans), there are no major Roman settlements along the Chiltern Hills (Branigan 1994); the ancient route of the Iknield Way may have connected the local rural population.

5.2 Site and situation

NGR: Tile + Eastings + Northings	TL 3877 2400 (centre)
Ordnance Datum	80 metres
Settlement area (greatest extent)	c.30-50 ha from the descriptions of Partridge (1975, Fig.4, 144) and Thompson (2005, 5). This estimate is generous and likely to include less intensively used areas.

[56] The site may have been on marginal tribal lands of the pre-Roman Catuvellauni and the Trinovantes, arguably at a trading point, but little is known for certain about LIA tribes and their territories (Champion 2014).
[57] See Bryant on LIA central places (2007)

Roman Braughing lay on raised land (Wickham Hill) above the valley floor of the River Lea comprising glacial sand and gravel[58], but at a height still lower than the surrounding countryside. The latter dominated by a low band of white chalk down land rising a little over 100 m and orientated north-south, with intrusions of Lambeth Group (sand, gravel, silt and clay). Beyond, large swathes of glacial till extend in all directions, broken by alluvium deposit (sand, silt and clay) extending southward along the River Lea towards London. A band of London Clay also runs north-south, an area of which was exploited by the Hadham pottery industry. A small isolated outcrop of Hertfordshire Puddingstone is located nearby to the south of the small town. There are no local sources of iron or other metals.

Today, soil in the area is a fertile well-drained loam which is suitable for both arable and pastoral farming. Periodic river flooding would also have created temporary water meadows, particularly suitable for cattle grazing. The river and non-permanent small streams to the east of the town would have provided the residents with clean water.

5.3 Lea Valley – Thames river system

Roman Braughing was situated at the point in the Lea Valley where the River Quin joins the River Rib and flows south-west to discharge into the River Lea between Hertford and Ware (a distance of approximately 14 km). From here the River Lea flows for around 40 km further south to the confluence with the River Thames to the east of *Londinium* (near the East India Docks). It is thought that the flow of water through the Quin/Rib/Lea river system was much greater in volume in the LIA and Roman periods (Partridge 1975, 140; Smith 1987, 171)[59] providing a navigable waterway between London and Roman Braughing. This rationale has contributed to the idea that in the 1st century AD Braughing was a thriving trading post (Burnham 1986, 196; Branigan 1994, 101; Niblett 1995, 116) attracting merchants from the Continent (Partridge 1975, 140). However, reasonably high up the river only small shallow craft on short haulage journeys could have worked the section approaching Braughing. There are two further obstacles to the large scale movement of goods on this river network as far north as the small town. Firstly, there is evidence from the Early Roman period of river frontage buildings and a probable quay further south near the site of Ware Lock (Wilson 1975, 260; O'Brien and Roberts 2005, 4-5). This would suggest that goods were regularly transferred here between the main river

[58] British Geological Survey – Geology of Britain Viewer on-line at http://mapapps.bgs.ac.uk/geologyofbritain/home.html
[59] What evidence there is for this claim is not made clear.

craft and those vessels plying the smaller tributaries, or to carts for onward land journey. Secondly, as noted above, there is evidence that the river valley around Roman Braughing suffered periods of flooding. During excavations at Skeleton Green and on Ermine Street thick silt layers were found left behind after major flooding events in the mid-1st century AD (Partridge 1981, 35; Potter and Trow 1988, 13). Such events would have eroded the river banks making permanent quay structures unviable and the town as a focus of waterborne trading less likely, unless a system of hydraulic management was developed.

5.4 Archaeological interventions

Initial archaeological interest in the site of Roman Braughing can be traced to antiquarian finds at Larks Hill[60] (VCH 1914, 150) and the belief that at least one major Roman road ran through the area. A small number of excavations followed, mainly focussed around the railway station and the archaeological remains of a masonry building on Wickham Hill (Holmes 1955). A large collection of IA finds was assembled by a local landowner (Henderson 1938) from around the Gatesbury earthworks. This local interest led to further archaeological interventions in the 1970s and 1980s and the early 21st century. Aerial photographs have revealed crop marks outlining the remains of large buildings and part of the internal street layout, but most of the town area (although not built over) is largely unexcavated (Rodwell and Rowley 1975: pl. IXa and IXb, opp. 36; pl XVIa and XVIb, opp 154; Burnham and Wacher 1990, 106). The few more recent excavations have been along Ermine Street and include Skeleton Green (Partridge 1981), Pump's Mead in Puckeridge (Barr 1971b) and Plashes Farm in Standon (Ennis 2000), unintendedly exerting a road-centred bias to the sum of data for the small town.

Locally, Ware (10km to the south) has received archaeological attention as a posited Roman settlement at the crossing point of Ermine Street and the River Lea. Recent intervention, ahead of major building development projects, has been recorded for sites at GlaxoSmithKline (Cooper-Reade 1992a; Humphrey 1999; O'Brien and Roberts 2005) and at Ware Football Club (Walker 1993, 1995). Buntingford, also on Ermine Street, but 5km to the north of Braughing, has been the subject of a number of small excavations (Leonard 2012; Snee 2012). A small number of excavations have been conducted to the west of Bishop's Stortford (Ellcock 1970; Garfi and Partridge 1979; Wright 1980-82; Cooper-Reade 1992, Crank, McDonald and Murray 2001; Scholfield 2008; Cavanagh 2010),

[60] The 'earthworks' around Larks Hill thought by antiquaries to be Roman, were later identified as medieval or the remains of lynchets.

associated here with the route of Stane Street. Finally, a significant area to the south-east of Roman Braughing incorporating Bromley Hall (Barr 1971a; Cott 1998; Landon 2010), Caley Wood and Wickham Spring has been subject to small-scale excavations focused on the Hadham ware pottery kiln sites located here.

Much of the research data for Roman Braughing and the local area have been collected from grey literature or retrieved from short articles in local archaeological society publications; other than Partridge's work (1975; 1981) little has been published as a paper or monograph. Developer-funded reports have provided the most detailed material. Nevertheless, specific evaluations derived from environmental sampling or animal bone analysis, are generally lacking, and therefore limited data is available for agricultural practices and for site comparisons. The quality and data available from all the source interventions has been reviewed for the purpose of this study and presented in Table 5.1.

Table 5.1 Summary of Archaeological Interventions in Roman Braughing and sites within approximately 10 km[61]

Site	Location (TL)	Intervention Year	Excavator	Area	Aim/purpose	Reporting quality	Information value
Bishop's Stortford	49002100	1950s	Ellcock, T. W.	unknown	Evaluation	Report	Poor
Bishop's Stortford (W and SW - Cannons Close/Meads/Thorley)	49302220	1992	HAT	59 ha	Evaluation	Detailed report	Good
Bishop's Stortford SMR, Grange Paddocks	49062207	1978	Garfi, S. /Partridge, C.	unknown	Evaluation	Article	Poor
Bishop's Stortford SMR, Grange Paddocks	48932212	2001	HAT	?area (6 trenches)	Evaluation	Detailed report	Moderate
Bishop's Stortford, Stane Street	49492191	1980-2	Wright	unknown	Evaluation	Article	Poor
Bishop's Stortford, Stane Street	47502200	1960s			Evaluation	Article	Poor
Bishop's Stortford, School	48801972	2008	AS	6.6 ha	Evaluation	Detailed report	Good
Bowl's Dell	38272242	?2006	Cushion, B.		Survey	Report	Moderate
Boxfield Farm	26472551	1986-1990	HAT	?	Evaluation	Detailed report	Good
Braughing	38802400	1975-9	HAT		Evaluation	Detailed report	Moderate
Braughing, Bath house	39402360					Article	Poor
Braughing Station	39002419	1970	EHAS		Evaluation	Article/report	Moderate
Bromley Hall/Caley Wood	41282125	2010	BAG	1km sq	Fieldwalking/evaluation	Detailed report	Good
Bromley Hall, Much Hadham	41702170	1998	Cott, P. J.	0.28 ha	magnetometer survey	Report	Moderate
Buntingford	36502890	2011	AS	1.14 ha	Evaluation	Detailed report	Good
Buntingford - Owles Lane	36802900	2012	THN	18 ha (19 trenches)	Pre-construction evaluation	Detailed report	Good
Exnalls Farm	45101950	1991	HAT	171 trenches (30m x 1.8m)	Rapid evaluation	Limited detail	Moderate

[61] Empty cells denote uncertain (?) or unavailable data. For 'Excavator' abbreviations and an explanation of 'Information value' see Appendix A.

Foxholes Farm	34801230	1974-1989	HAT (Partridge 1989)	Area 1 c. 200 x 100m Area 2 c. 200 x 200m Areas 3 and 4 c. 600 x 400m	Evaluation	Monograph	Moderate
Gatesbury	39242388	1971-2	HAS (Partridge 1979)			Article	Moderate
Gatesbury Earthwork	39462395	1938	Henderson, G. B.	unknown	Landowner excavation	Article	Poor
Harlow, land to North	86146451	2005	L-PA	20 ha (212 trenches)	Evaluation	Detailed report	Good
Harlow, St. Johns street	32981290	2011	PCA	4 trenches ~ 20m x 1.8m	Evaluation	Detailed report	Good
Hertford, Central area	32501200	1977-80	HAT	multiple areas	Assessments	Summary reports	Moderate
Longmead, Buntingford	35682936	2011	AS	1.14 ha	Evalution	Detailed report. Expert contribution	Good
Mentley Lane East, Puckeridge	38602360	2010	PCA	17 trenches	Evaluation	Detailed report	Good
Poors Land	38612295	1971-72	EHAS		Evaluation	Detailed Report	Good
Puckeridge, Pearce's Farm shop	38352433	2004	HN	130m sq	Evaluation	Detailed Report	Good
Puckeridge, Pumps Mead	38612351	1961	EHAS (Barr 1971b)		Evaluation	Report	Moderate
Ralph Sadleir School	38802360					Note only (Rodwell and Rowley 1975)	
Skeleton Green	38602380	1971-2	Partridge, C.	1500m sq	Evaluation	Report. Expert contribution	Good
Standon, Plashes Farm	38002040	2000	ECCAU	?area (53 trenches)	Evaluation		
Wadesmill, by-pass	36881866	2002	HN		Evaluation	Detailed reports	Good
Wallington	28703340	1993	NHDC Field Archaeology section	unclear	Evaluation/fieldwalking	Detailed report	Moderate
Ware	35001400	1961	EHAS	unclear	Evaluation	Article	Poor

Ware Football Club	35501450	1996	HAT	96 pad foundation bases	Watching brief	Report. Expert contribution	Moderate
Ware, Buryfields	35361445	1990-91	HAT	3 trenches	Evaluation/watching brief	Report	Poor
Ware, GSK	35201420	1990-91	HAT	3 trenches	Evaluation/watching brief	Report	Poor
Ware, GSK	?	1999	HAT	0.8 ha	watching brief	Detailed report	Moderate
Ware, GSK	35281449	2003	HAT	20m x 30m	Evaluation	Detailed report. Expert contribution	Good
Ware, Lock	35301430	1995	HAT	96 pad foundation bases	Watching brief	Report. Expert contribution	Moderate
Ware, Millside	35501430	1990-91	HAT	3 trenches	Evaluation/watching brief	Report.	Poor
Wickham Hill Farm	38932379	2013		Modern foundation trenches	Monitoring and recording	Summary	Poor
Wickham Hill nursery	38902380	1973	EHAS		Evaluation	Article/report	Moderate
Wickham Hill, south	38802380	1971-2	EHAS	unclear	Evaluation	Report.Expert contribution	Moderate
Wickham Kennels	39052433	1988	HAT		Evaluation	Interim report	Moderate
Wickham Kennels		1982	HAT		Evaluation	Report	Moderate

5.5 Literature review

The English Heritage Extensive Urban Survey for Braughing, Bishop's Stortford, Ware, Hertford, Standon and Buntingford, prepared by Isobel Thompson (2005) for Hertfordshire County Council, each includes a summary of the key points of knowledge relating to Roman archaeological sites in, and close to, these modern centres[62]. A gazetteer of rural enclosure sites in Hertfordshire has also provided a useful resource (Hunn 1996). The Roman Rural Settlement Project (2018) details a number of developer led rural excavation sites around Braughing, the data from which is also included in this present study.
The literature is dominated by Partridge's monograph (1981) on the work carried out at Skeleton Green on the western edge of Roman Braughing. The LIA/early Roman site has provided data on timber buildings and associated finds, and a cemetery, and has proved an enduring basis for subsequent characterisation of Roman Braughing. The majority of relevant investigations in this area have been directed by local societies, particularly East Hertfordshire Archaeological Society and Hertfordshire Archaeological Society, such as those conducted by Cooper-Reade at GlaxoSmithKline (1992) and Exnalls Farm (1991), and Zeepvat (1994) on the centre of Hertford.

Of the larger works on small towns in Roman Britain, only two include consideration of Braughing at any length. The earliest, Rodwell and Rowley's collection of edited conference papers includes one by Partridge entitled 'Braughing' (1975, 139-57). This was followed fifteen years later by Burnham and Wacher's volume which included an updated summary of the town (1990, 103-11); the material, including the diagrams of the town with excavation sites, is essentially based on the work of Partridge. It is clear that a few individuals have dominated archaeological interventions in this area. Whilst partiality based on agendas and limited fields of expertise must be expected, extensive knowledge of the locality does make the views expressed worth considering.

5.6 Claims for market centre status

Roman Braughing was

> a trade focus at [the] junction of several roads (Burnham 1986, 196)
>
> a thriving market town and minor administration centre (Branigan 1994, 101).

[62] The Braughing paper is accompanied by a series of maps showing key archaeological sites for different periods, including one for LIA finds and one for the Roman period.

The above quotes demonstrate the generally accepted view of the economic character of Braughing during the Roman period; a view which still prevails (Bryant 2014, *pers. comm.*). Despite this conviction 'little evidence has been forthcoming about its economic potential because of the rather limited and peripheral nature of most excavations' (Burnham and Wacher 1990, 110). Nonetheless, it is useful to evaluate the nature of the evidence behind these claims in order to understand how the belief in market centre status has been formed. The geographical location of the settlement, particularly in regard to communications networks, and the distinctive finds of early imported wares and coin moulds, appear to underpin the belief that Roman Braughing fulfilled the role of a market centre.

5.6.1 Roman road system

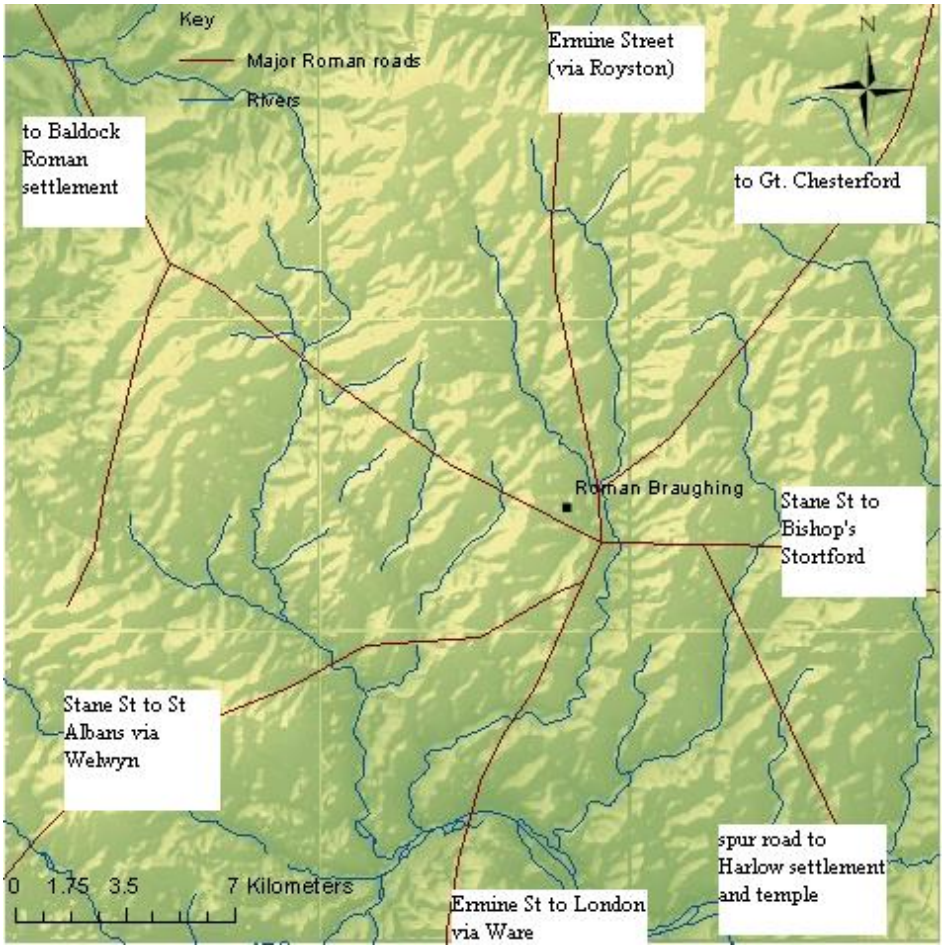


Figure 5.3 Major Roman roads associated with Braughing (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

The map (Figure 5.3) graphically demonstrates the location of Roman Braughing as a central hub in the road network with access to six major roads[63] (Burnham 1986, 196). Close assessment of the town's morphology however reveals that the main roads skirted the town rather than converged on a central junction or crossroads. The only major junction to be yet identified lies to the south of the town where Stane Street approached from the east to meet Ermine Street (Barr and Gillam 1961, 108). Another section of Stane Street appears to have run diagonally across the north eastern edge of the town to join Ermine Street. Rather than a central hub, this arrangement attests to major roads (Table 5.2) passing the town by en route to a different destination[64]. Any goods transported along these roads would have needed to make a small detour to end up in the town: not ideal for a market centre.

Table 5.2 Roman Braughing – road network

Road	**Direction from town**	**Destination**	**Distance (km)**	**Margary No.**	**Comment**
Ermine Street	N	Royston - junction Iknield Way	22	2b	N/A
Stane Street	NW	Baldock - junction Ermine Street	18		? Formed the main internal street of the town (Rodwell and Rowley 1975, Fig 3 and Fig 4, 143-4)
N/A	NE	Gt. Chesterford	22	21b	Partially known road
Stane Street	E	Bishop's Stortford	9	32	Continued to Camulodunum (*civitas* centre of the Trinovantes, then Catuvellauni tribes; Roman town in AD 50)
Ermine Street	S	Londinium Ware/Hertford	48	2a	Londinium founded c. late 40s AD, expanded late 1st century
? Stane Street	SW	Verulamium (Welwyn)	31	21a	Spur road off Ermine Street. Verulamium was a *municipium* at the time of Boudiccan uprising, but was later rebuilt as a *civitas* centre for the Catuvellaun.
N/A	SE	? Bromley Hall potteries	?	N/A	No evidence that this road extends to Harlow/Temple

The roads were not built at exactly the same time, for the same purpose, used continuously or equally. Ermine Street for example was built, probably between AD 45-75[65] (Potter and Trow 1988), as a military route north from *Londinium* to *Eboracum* (York). At around a day's march for foot-soldiers from *Londinium* (if it was a military base), Roman Braughing

[63] Based on Margary's general survey of Roman roads in Britain (1967, 1933, map 7b)
[64] This resonates with Willis account of samian distribution with regard to small towns on roads connecting large towns (Willis 2005, 7.2.5).
[65] Barr and Gillam (1961, 108-16) have noted that early Roman rubbish pits were discovered under the metalled road, and believe that this section at least was not actually constructed until twenty-five to fifty years after the Conquest

may have marked a military supply station and supplied goods and services to military and or official road travellers. This may have been along the lines of the tentative military connection argued for the 1st century AD Roman fort built on the site of Great Chesterford after the Boudiccan uprising in AD 60 (Medlycott 2011). Short lived, the fort went out of use in the late 1st century and the settlement developed into a small town. Nevertheless, early migrant settlers on Ermine Street apparently traded on a small scale at Skeleton Green (Partridge 1981). By contrast, Stane Street adopted a well-established ancient route from *Camulodunum* via Bishop's Stortford and Braughing, to *Verulamium*[66]. This route sustained the movement of imported goods between the East coast and the interior of Britain. Roman Braughing was certainly connected to a number of important settlements, but further work is needed to establish to what extent the town took advantage of the consequent trading potential.

5.6.2 Pre-Roman coin moulds

The discovery of LIA coin mould fragments from at least three sites around Roman Braughing[67] has leant weight to the idea that the subsequent Roman period town was involved in monetary exchange (Landon 2009, 39) and thereby acting as a trade centre. A large number of bronze coins were apparently made here, and an unusual number of coins casually lost (Longden, 2010, 62). Evidence of metal working found in pits and ditches excavated at the Wickham Kennels site has been used to argue for the manufacture of bronze and gold and silver coins here (Burnham and Wacher 1990, 107; Partridge 1982, 41-42) c. AD 25-45. Traces of bronze alloy incorporating a tiny amount of silver have been found in one of the moulds which Longden thought to be typical of the coins manufactured in this area (2012, 60). However, as no mint mark has yet been found denoting Braughing it may be that the moulds were simply used to manufacture blank bronze coins which were then transported to another site, probably *Verulamium* or *Camulodunum,* to be mint marked[68] (Longden, 2010, 63). Niblett has claimed a general east-west connection in the early pattern of coin usage at Braughing and Baldock (1995, 20), which may indicate a dominant trade route, although Longden has argued that Braughing ceasing to be a trade

[66]Also taking in the settlements at Braintree and Great Dunmow in Essex.
[67]Sites: Ford Bridge, Puckeridge, Gatesbury (Henderson 1938) and Gatesbury Mill (Partridge 1979, 128-30, Thompson 2002, 4). Some 400m upstream from the latter site there has been a more recent discovery of early coin moulds (Landon *pers. comm.*).
[68] In Hertfordshire two coin minting sites have been identified: *Camulodunum* (117 coins) and *Verulamium* (114 coins)) - coin numbers from the PAS database (2014). No mint mark has been identified for pre-Roman Braughing. The majority of the coins found were minted under the local tribal leaders, Cunobelin, at *Camulodunum* (Braughing was perhaps on the western fringe of the tribal lands) and those of Tasciovanus at *Verulamium.*

centre drawing on a supply of coins by c. AD 20 (Longden 2010). However, interpretation of the Roman period small town as a mint or centre for monetary exchange of goods has not been supported by specific evidence. Further, these narratives assume IA coins were employed in commerce and exchange, something that in itself is less than certain.

5.6.3 Finds of early imported goods

In a similar vein, the assertion that 'large quantities of imported goods' (Niblett 1995, 16) from Gaul and Italy (Partridge 1981, 352 - Fig 137) were reaching this area[69] in the last quarter of the 1st century BC, has encouraged the idea of a trading hub. The imported goods include four worked bone items[70], although these may equally have been crafted locally, and a wide variety of Continental pottery recovered from Skeleton Green (Partridge 1979; 1981, 323) and the Gatesbury area (Henderson 1938). Pre- and Early Roman amphorae fragments are also attested in the Braughing area (Table 5.3).

Table 5.3 Types of amphora found at Braughing (developed from Timby and Rigby 2007)

Amphora Type	**Date of Type**	**Source / Standard Content**	**Find Location**
Dressel 1 species	c. 130-10 BC	Italy / Wine	Skeleton Green
Dressel 1 species	c. 130-10 BC	Italy / Wine	Puckeridge, Station Rd
Dressel 1 species	c. 130-10 BC	Italy / Wine	Potter 1971-2
Dressel 1 species	c. 130-10 BC	Italy / Wine	Henderson Collection
Dressel 1 species	c. 130-10 BC	Italy / Wine	Gatesbury Track
Cam 185	c. 50 BC – AD 60	Southern Spain / Grape juice	Skeleton Green
Cam 185	c. 50 BC – AD 60	Southern Spain / Grape juice	Gatesbury Track
Dressel 2-4	c. 30 BC - AD 100	Italy or Spain / Wine	Skeleton Green
Dressel 2-4	c. 30 BC - AD 100	Italy or Spain / Wine	Puckeridge, Station Rd
Dressel 2-4	c. 30 BC - AD 100	Italy or Spain / Wine	Potter 1971-2
Dressel 2-4	c. 30 BC - AD 100	Italy or Spain / Wine	Gatesbury Track
Cam 139	c. 25 BC - AD 70	Italy / Wine	Potter 1971-2
Richborough 527	c. 20 BC – AD 120	Aeolian Islands / Alum	Skeleton Green
Cam 186	c. 20 BC – AD 130	Southern Spain / Garum	Skeleton Green
Cam 186	c. 20 BC – AD 130	Southern Spain / Garum	Potter 1971-2
Cam 186	c. 20 BC – AD 130	Southern Spain / Garum	Henderson Collection
Unidentified	_	Southern Spain / Olive oil	Puckeridge, Station Rd
Dressel 6	c. 10 BC - AD 80	Italy / Wine	Gatesbury Track
Dressel 20	c. AD 15-240	Southern Spain / Olive oil	Skeleton Green
Dressel 20	c. AD 15-240	Southern Spain / Olive oil	Potter 1971-2
Dressel 20	c. AD 15-240	Southern Spain / Olive oil	Henderson Collection
Gallic	c. AD 30-250	France	Potter 1971-2
Gallic	c. AD 30-250	France	Henderson Collection

[69] The small town site of Sandy 40 km to the north of Braughing also exhibited a similar juxtaposition marked by wealthy grave goods and comparatively low-status settlement (Johnston, 1975, 228).
[70] Three bone spindles (or possibly styli) and a spoon from excavations in the Wickham Hill and Skeleton Green areas of Braughing (Stead 1970; Partridge 1981; Potter and Trow 1988). Dated to between 27 BC and AD 37 and probably imported as they are commonly found at sites along the Rhine and in Italy (Greep 1983, 259-261).

The earliest amphorae attest to LIA importation in the form of the Dressel 1s with the later most common form being Dressel 20 which contained olive oil from Baetica. The LIA assemblage from Gatesbury Track included 30% Dressel 20 (of total amphorae by weight), the Henderson collection 31% and the Skeleton Green assemblage 36% (Williams and Peacock undated, Table 1)[71]. These figures correspond closely to the general pattern in Britain[72] of 30% in the first half of the 1st century AD (LIA/pre-Roman period), followed by a steady increase to 70% in the late 2nd century AD (Williams and Peacock undated, 2) and therefore do not as such demonstrate a local market centre as they might equally relate to local consumption.

5.6.4 Finds of early imported Gallo-Belgic and samian wares

The presence of imported Gallo-Belgic fine ware, particularly in *terra nigra* and *terra rubra* fabrics (produced in Gaul between around 20 BC and AD 60/70) together with white ware beakers, have been documented on key pre-Roman sites at Braughing (Partridge 1979, 1981; Henderson 1938). These finds (Table 5.4) have been cited as evidence of trade links with northern Gaul and a local demand for high status pottery, seen too in the local imitations of these forms which are quite prevalent (Willis *pers. comm.*).

Table 5.4 Roman Braughing: the most common Gallo-Belgic forms MNV by site (Timby and Rigby 2007)

Braughing: find site	***Terra nigra* – all forms (min. no. of vessels)**	***Terra rubra* – all forms (min. no. of vessels)**
Bath house	8	10
Henderson collection	52	49
Gatesbury Track	20	110
'Oppidum'? (potter) Ermine St.?	45	178
Skeleton Green	263	256
Puckeridge, Station Rd	6	32
Wickham Kennels	8	13

A tradition developed exporting these table wares to southern Britain, Essex and Hertfordshire, possibly exploiting commercial links with the *Atrebates* and *Catuvellauni* tribes (Timby and Rigby, 2007). The nearest coastal port to Braughing would have been on the Essex coast, from where goods apparently travelled east-west along the route later adopted by Stane Street, via sites such as Elms Farm, Heybridge, or *Camulodunum* where these fabrics dominate the fine ware record for this period.

[71] http://services.english-heritage.org.uk/ResearchReportsPdfs/3610.pdf [Accessed 4.5.16]
[72] This figure is based on the conflation of results from of large and small settlements of varying status.

A large number (132 vessels) of Gallo-Belgic stamped fragments[73] were identified in the pre-Roman assemblages (Timby and Rigby 2007 on-line). These include around 40 different potters' marks; two of the potters identified of whom more than one example is present are 'Smertuccos' (number 56), also found at Folkestone, Silchester, *Camulodunum*, and 'Vritves' also found at *Camulodunum* and *Verulamium* sites. This indicates only that early Braughing was well connected to the trading network for imported fine ware.

The east-west movement of imported fine ware is further attested in the consumption of samian and arretine wares from pre-Roman Braughing (Table 5.5). It is suggested that these wares too arrived via *Camulodunum* which is thought to have been in receipt of large quantities of these vessels from Italy and Gaul at this period (Niblett 1985, 83). Few such finds have been recorded from local rural sites, apart from a few samian sherds at Pumps Mead, Puckeridge (Barr 1971b; HHER 1389), very close to Braughing. There is no evidence upon which to argue that early Braughing acted as a collection/redistribution centre for the local area; as such this fits with the wider distribution picture.

Table 5.5 The manufacturing origin of fine ware finds in pre-Roman Braughing assemblages (Timby and Rigby 2007, on-line with additions)

Braughing: find site	**Samian / *terra sigillata* - origin**
Bath house	South Gaul and Italy (arretine)
Henderson collection	Italy (arretine)
Gatesbury Track	South Gaul
'Oppidum'? (potter) Ermine St.?	Central Gaul and Italy (arretine)
Skeleton Green	South Gaul and Italy (arretine)
Puckeridge, Station Rd	South Gaul
Rib River, west bank	Samian source unclear. Italy (arretine)
Wickham Kennels	South Gaul, Central Gaul and Italy (arretine)

5.7 Historical perspective and summary

By the time of the Domesday survey (AD 1086), a lack of continuity is evident in that occupation had shifted to the site of the modern village of Braughing where the community was deemed a substantial rural community of 29 households, with enough arable land to require 11 ploughing teams a moderate amount of meadow and woodland, and a single mill. It was not a commercial town in any sense. It has been suggested, based on the

[73] Compared to the 116 vessels at *Verulamium* this is high; 13 vessels at Baldock. The large centre at *Camulodunum* to the east and close to a likely point of import has produced 4347 vessels.

distribution of a large number of coins and small finds, that at least two sites in the area may have hosted regular markets or fairs during the medieval period: Poor's Land at Standon (HHER 9246) and Wickham Hill (HHER 9252). This, combined with the claims relating to the earlier LIA/pre-Roman period discussed above, may in part account for the belief that Roman Braughing was similarly characterised by commercial activity.

On the existing evidence of imported pottery LIA/pre-Roman Braughing exploited commercial links with the Continent. It is not clear however, that the construction of the major road system during the Early Roman period had a dynamic effect on the market potential of the developing settlement. The weakness of the above claims appear to have been compensated by the later history of the immediate area, thereby reinforcing the contention that Roman Braughing existed as a market centre.

Roman Dorchester-on-Thames

6.1 Introduction

This chapter examines the origin and geographical context of Roman Dorchester-on-Thames, the second case study small town, and reviews the archaeological attention (interventions and references in literature) it has received. The specific market centre claims for the Roman town are appraised and the influence of later historical references taken into consideration.

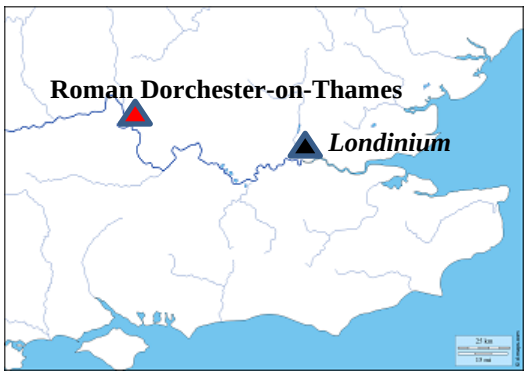


Figure 6.1 Location of Roman Dorchester-on-Thames in relation to London (d-maps.com)

No Roman name is securely associated with Dorchester-on-Thames[74], although Rowley notes Bede's use of '*Dorcis'/'Dorciccaestrae'* in the 8th century (Rodwell and Rowley 1975, 118) and '*Dorocina*' is marked on the 1888-1913 Ordnance Survey 6" map (Figure 2). The settlement, to the west of London (Figure 6.1), is thought to have had its origins in the LIA, possibly as a result of the local population spreading north from Dyke Hills and the Wittenhams area (Burnham and Wacher 1990, 117-120). Aside from a conjectured early fort, evidence for the development of the town relates to the mid-2nd century AD onward (Mid-Roman) with the initial earthwork defences dating to the late 2nd century AD. Roman Dorchester-on-Thames continued to be occupied into the Late Roman period with additional masonry defences constructed in the late 3rd century AD.

[74] The Roman town of Dorchester, in Dorset, is usually taken to be '*Durnovaria'* listed on the Antonine Itinerary, but this is also by no means unchallenged.

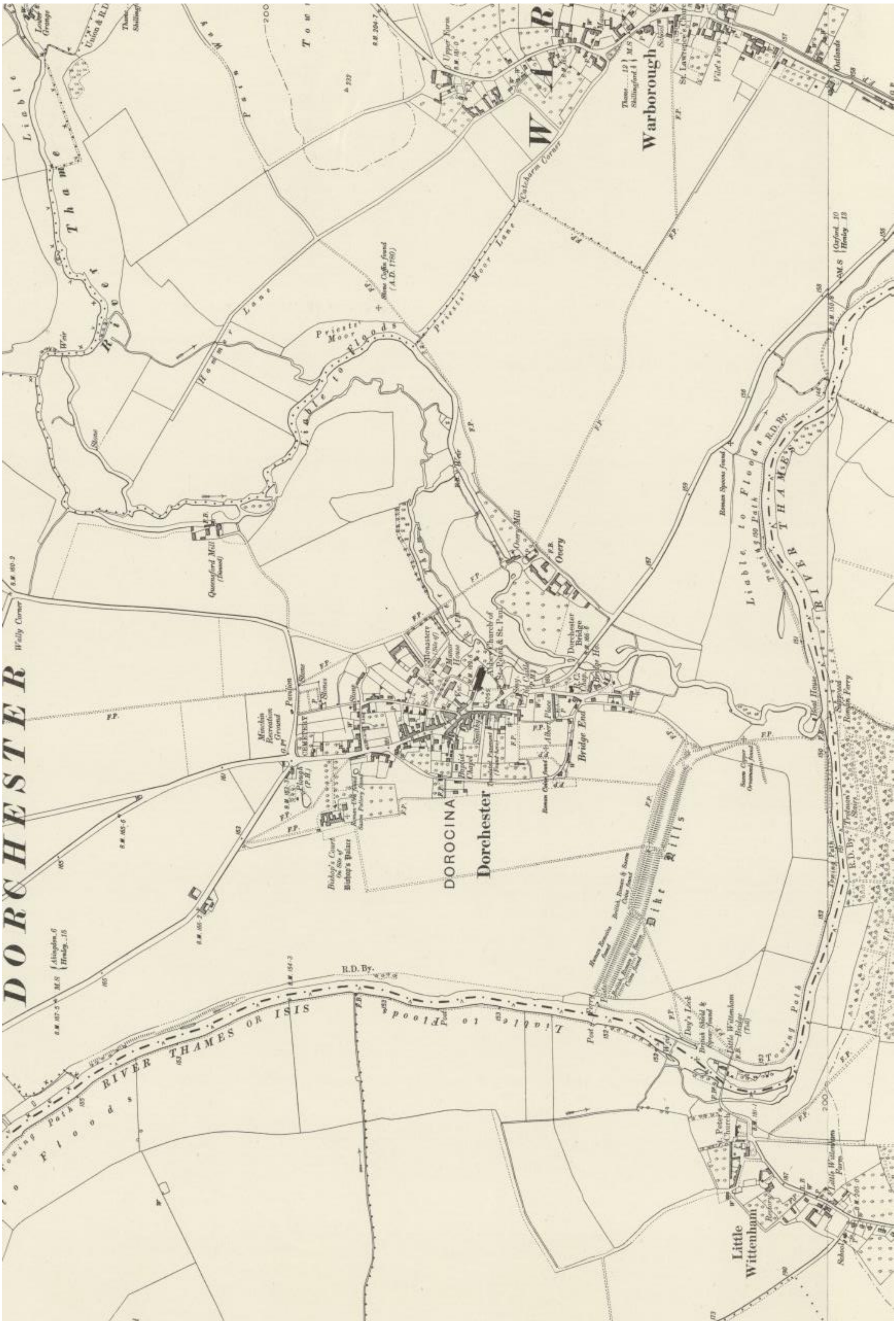


Figure 6.2 Roman Dorchester-on-Thames location on Ordnance Survey 6" map England and Wales 1842-1952 (National Library of Scotland Creative Commons Attribution -NonCommerical -ShareAlike (CC-BY-NC-SA) licence.)

6.2 Site and situation

NGR: Tile + Eastings + Northings	SU 5782 9419 (centre)
Ordnance Datum	40-50 metres (mostly 50m)
Settlement area (greatest extent as known over the Roman period)	5.5 ha

The land here is characteristically low-lying with small hills rising at Wittenham Clumps, Sinodun Hills and Brightwell Barrow to c.110m (Figure 6.2). The settlement extended over an area of Northmoor Sand and Gravel deposited just to the north of the confluence of the Thame tributary and the River Thames. Beyond the town, the Chiltern Hills (a chalk ridge) run to the south-east of the town with outcrops of West Melbury Chalk forming the Sinodun Hills and Brightwell Barrow. Areas of Oxford Clay and the distinctive Shotover Hill white clay are found to the north, particularly along the route of the road to modern Oxford, where they were exploited by the Oxford potteries (Young 1977, 2000) which developed in the 2nd century AD. The Thames Valley gravel terraces (Booth *et al.* 2007) underlie brown loamy soil in this area resulting in fertile well-drained land suitable for arable farming. The local river system is prone to flooding around Dorchester-on-Thames[75] with localised events depositing alluvial soil and influencing farming practices in the Roman period.

Dorchester-on-Thames sits at the crossing point of the River Thames by a major road constructed in the Roman period between Silchester and Alchester (Malpas 1987, 24). The small town would have been some distance from any large towns[76]. Given that Roman Dorchester-on-Thames did not develop substantially until the 2nd century AD, it is unlikely that its proximity to the conjectured boundaries of the territories of the pre-Roman tribes of the *Atrebates* , the *Catuvellauni* and the *Dubunni* (Cunliffe 1994a) and thereby a focus for inter-tribal trading, was significant. The 3rd century prosperity of the small town accords more closely with the activity of rural sites of the Upper Thames Valley in the Late Roman period (Booth *et al.* 2007, 408), than the larger settlements at Staines-upon-Thames (Booth 2010) or London.

[75] The local water table was at least as high as it is today, when the reducing effect of modern gravel lakes nearby and a large number of active boreholes for water extraction are taken into account. http://maps.environment-agency.gov.uk/wiyby/mapFromCMSCodes?topic=fwa&lang=_e&codes=061FWF23ClfntoWt&layerGroup=1#x=458229&y=194329&lg=1,&scale=9 [Accessed 20.02.2018]

[76] In a direct line, the nearest significant centres would have been Alchester, 28 km to the north;, Silchester, 33 km south; Cirencester, 55 km west; *Verulamium*, 43 km east and London, 70 km south-east.

6.3 Thames and Thame rivers

At a significant crossing point of the River Thames[77], Roman Dorchester-on-Thames may have developed as a natural halt providing an opportunity for goods to be exchanged or services availed. The confluence of the Thame tributary also lies immediately to the south of the town with the Thame valley extending communications north-eastward. Upriver from *Londinium*, Dorchester-on-Thames is commonly thought to be within the navigable stretch of the Thames. For this reason, it has been speculated that Oxfordshire pottery was distributed downriver (Fulford and Hodder 1974) providing Dorchester-on-Thames with a river trading role.

6.4 Archaeological interventions

Dorchester-on-Thames has been occupied more or less continuously since the Roman period, but the palimpsest of remains from subsequent historical periods has not necessarily obscured the earliest evidence. Archaeological interventions have taken advantage of long-standing open spaces (such as the allotments and Minchin recreation ground) as well as timely opportunities afforded by modern building construction. The quality and quantity of data available from all the interventions in and around Dorchester-on-Thames has been reviewed and presented in Table 6.1. The majority of the published excavation work dates from the middle of the 20th century: Sheppard Frere's initial work on the allotment site was carried out in the 1960s. Early work concentrated on the (visible) town's defences in line with the many investigations of walled Roman towns at this time (Esmonde Clearly 1987; Burnham and Wacher 1990). It is true to say that understanding of the early phase of the town is based on meagre finds and most of the evidence to date relates to the urban buildings constructed in the mid-2nd century AD.

The research objectives for the current training excavations centred on the town allotment area (Discovering Dorchester Project 2007-18[78]) include the intention to:

> …examine the Roman fort and town in more detail, throwing light on their internal layout, dating and changes through time, paying particular attention to recovery of evidence for social and economic aspects of the successive stages of the Roman town…
>
> (Booth 2007, Appendix 1, no. 7)

[77] Alternatively referred to in the upper reaches as the Isis River.
[78]Oxford School of Archaeology and Oxford Archaeology http://www.arch.ox.ac.uk/reader/items/highlights-of-the-2017-excavation-season-at-dorchester-on-thames.html [Accessed 20.02.2018]

The project has intended to investigate the extent to which the town acted as a local market and whether it played any part in the local Oxford pottery industry, although this has not been addressed to date. Apart from interim reports (q.v. CBA *South Midlands Archaeology*) no material has as yet been published (Paul Booth *pers comm*).

Archaeological interventions in the surrounding countryside have been largely in response to the excavation of gravel pits and building construction work. The 1995 preparation for the Chalgrove to Didcot gas pipeline documented a number of hitherto unknown archaeological sites - planners avoided a route endangering known sites. Known LIA occupation sites around Little Wittenham, Long Wittenham and Wittenham Clumps (Allen *et al.* 2010), Sinodun Hills and Dyke Hills have received intermittent attention over recent decades. Modern Abingdon is known to have been the site of a contemporary settlement in the LIA/Roman period, and the publication of the archaeological evaluation at Barton Court Farm in the mid-1970s (Miles 1984) has attracted a number of interventions in these vicinities. Thus, archaeological investigation is concentrated in particular areas and does not provide a comprehensive picture of the character and economy of Dorchester-on-Thames and its hinterland in the Roman period.

Table 6.1 Summary of Archaeological Interventions in Roman Dorchester-on-Thames and sites within approximately 10 km[79]

Site	Location SU	Year	Excavator	Area	Aim/purpose	Reporting level	Information value
Abingdon, Barton Court Farm	50409740	1973-7	OAU	Not stated ~ 50m sq	Evaluation	CBA Research Report	Moderate
Abingdon, 66/68 Bath Street	49509734	1992	WA	0.18 ha	Evaluation	Detailed	Good
Abingdon, Fitzharris Arms PH	49279803	2011	FA	single trench 15m x 1.5m	Evaluation	Expert analysis. Detailed	Good
Abingdon, Museum	49799705	2009	OA	4 test pits < 2m	Evaluation	Expert contribution. Detailed.	Good
Abingdon, Station Inn	49819727	2003	JMHS	5m x 25m	Watching brief	Detailed	Good
Appleford	52179359	1966 - 1973	OAU	20 ha – a number of excavations over period	1973 – full scale rescue excavation	Detailed. Expert contribution	Good
Appleford Sidings	52209260	1993	OAU	800,000 m sq	Evaluation	Detailed	Good
Aston Tyrrold Site 2	55938612	1989	TVAS	11.5km long	Watching brief (excavation)	Detailed. Expert contribution	Good
Benson	62009150	1998	TVAS	20m x 20m	Evaluation (excavation)	Detailed. Expert contribution	Good
Benson, St Helen's Avenue	61509150	1999	TVAS	40m x 40m	Evaluation	Small report. Few details.	Poor
Berinsfield	57409630	1936	OAHS	not given	Rescue excavation	Journal article. Detailed	Moderate
Berinsfield, Broadfield Barn	58009770	1977-8	OA	80m x 100m	To develop sampling techniques. Evaluation	Summary reports. Detailed. Expert analysis	Good
Berinsfiled, Mount Farm	58309680	1977-8	OA	80m x 100m	To develop sampling techniques. Evaluation	Summary reports. Detailed. Expert analysis	Good
Berrick Salome	61209360	1995	Roxby Engineering International Ltd	~ 13km	Random site assessment - pipeline route	Detailed. Expert contribution	Moderate
Blackbird Leys	55502800	1995	TRAA	3.5 ha	Evaluation	Detailed	Moderate

[79] Empty cells denote uncertain (?) or unavailable data. For 'Excavator' abbreviations and an explanation of 'Information value' see Appendix A.

Brightwell-cum-Sotwell	56679083	2008	Network Archaeology Ltd	0.94 ha	Evaluation (pipe-line)	Detailed. Expert analysis	Good
Crowmarsh Gifford	61709000	2006	TVAS	100m x 100m	Investigation	Journal article	Moderate
Culham	50909450	2013	TVAS	1.5 km sq	Evaluation	Detailed	Moderate
Didcot, Land north of the A4130	53909030	2004	Birmingham Archaeology	31 ha (19 trenches)	Evaluation	Detailed.	Good
Didcot, Belgrave Farm	55709050	2001	RPS	14.4 ha	Evaluation	Detailed	Moderate
Didcot, sewerage scheme	52008790	1998	CAT	10m wide strip +	Watching brief and evaluation	Limited detail	Poor
Dorchester-on-Thames (general)	57709410	1972	Bradley, R.	15m x 10m	Evaluation	Detailed	Moderate
Dorchester-on-Thames, Abbey	57909420	1960	OUAS	3 cuttings: 12'x 4', 12'x4', 24'x4'	Evaluation	Journal article	Moderate
Dorchester-on-Thames, allotments	57709400	2007-14	OUSA	30m x 20m	Training excavation	Limited detail	Poor
Dorchester-on-Thames, Beech House	57709430	1972	UTAC	120m x 30m	Rescue excavation	Journal article. Detailed	Moderate
Dorchester-on-Thames, Bishop's Court	57709410	1957-58	OUAS	150m x 150m	Rescue excavation	Journal article	Moderate
Dorchester-on-Thames, Castle Inn	57809400	1972	Bradley, R.	91m sq	Rescue excavation	Journal article	Moderate
Dorchester-on-Thames defences	57649403	1962	Frere	2m trench	Wall/rampart Evaluation	Limited detail	Poor
Dorchester-on-Thames, (former) Filling Station	57889410	2001	TVAS	2 10m x 1.6m trenches	Evaluation	Detailed	Good
		2002	TVAS	400m sq	Watching brief	Limited detail	Moderate
Dorchester-on-Thames, Fleur-de-Lys Inn	57829416	1992	OAU	2.8m x 10m	Evaluation	Detailed	Moderate
Dorchester-on-Thames, Hallidays	57819426	2007	JMHS	~ 49m long	Watching brief	Detailed	Moderate
Dorchester-on-Thames, Haven Close	57779384	2007-14	OUSA	30m x 20m	Training excavation	Limited detail	Poor

Dorchester-on-Thames, 80 High Street	57709460	2010	JMHS	30m x 30m	Evaluation	Limited detail	Poor
Dorchester-on-Thames, 86 High Street	57729461	2008	JMHS	6.8m trench	Evaluation	Limited detail	Poor
Dorchester-on-Thames, 24 Manor Farm Road	57909420	2011	JMHS	10m x 15m	Watching brief	Detailed	Moderate
Dorchester-on-Thames, 5 Orchard Haven	57819382	2008	TVAS	unclear	Watching brief	Limited detail	Poor
Dorchester-on-Thames, St. Birinus Primary Sch	57809430	1998	TVAS	80m x 80m	Evaluation	Journal article. Detailed	Moderate
		2010	TVAS	40 m sq	Watching brief	Detailed	Moderate
Dorchester-on-Thames, 60 Watling Lane	57689394	2010	JMHS	18m x 1.8m trench	Evaluation	Limited detail	Poor
Dorchester-on-Thames, 10 Wittenham Lane	57839383	2007	JMHS	10m x 10m	Watching brief	Detailed	Moderate
Dorchester-on-Thames, 11 Wittenham Lane	57829379	2013	JMHS	10m x 10m sq	Evaluation	Detailed	Moderate
Halfpenny Lane	58108390	1990	TVAS	not given	Assessment	Journal article. Detailed	Moderate
Kiln site	57179616	1936	Harden, D. B., OUAS	unclear	Evaluation	Journal article. Detailed	Moderate
Little Wittenham	56359255	2006	OAU	not given	Watching brief	Limited detail	Poor
Little Wittenham, Castle Hill	56809240	2010	OAU	200m x 200m	Evaluation	Detailed. Expert contribution	Good
Little Wittenham, Wittenham Clumps	56509250	1948	Rhodes, P.P.	10' x 10'	Evaluation	Journal article. Detailed	Moderate
Lollingdon Hill Sites ½	56808500/ 8502	1990	TVAS	15m x 10m	Assessment	Journal article	Poor
Long Wittenham, Round Hill	54609380	2004	WA	6.5 ha	Evaluation	Detailed	Moderate
Lond Wittenham, Neptune Wood	55209370	2010	OAU	400m x 200m	Evaluation	Detailed	Moderate
		2006	OAU	unclear	Assessment	Detailed	Moderate
Long Wittenham, Northfield Farm	55909520	1969	UTAC	0.364 ha	Evaluation	Detailed	Moderate

Moulsford, North Road	58708360	1990	TVAS	20m x 10m + 10m x 5m	assessment	Detailed	Moderate
Mount Farm	56149677	1933	OUAS	unclear	Evaluation	Detailed	Moderate
Overy	58409380	2014	Ainslie, R	unclear	assessment	Limited detail	Poor
Rutherford Appleton Lab., Didcot, Site B	47608600	2002	JMHS	13 x 330m x 1.5m trenches	Evaluation	Limited detail	Moderate
Wallingford, Cold Harbour Farm	63108900	1996	EH	not given	sample analysis	Detailed	Poor
Wallingford, Mackney, Sherwood Farm	57998980	2012	TVAS	2000m sq	Evaluation	Detailed	Moderate
Wallingford, 60 Radnor Road	59898954	2009	TVAS	2 trenches 10m x 1.6m	Evaluation	Detailed	Moderate
Wallingford, Winterbrook	59108840	2009	TVAS	24 ha	Evaluation	Detailed	Moderate
Wally Corner	58039548	1960	OUAS	200 ft x 400 ft	Evaluation (gravel pit)	Detailed	Moderate

6.5 Literature review

An important source of material has been the journal *Oxoniensia*[80] which includes many articles on Dorchester-on-Thames (1938, 1972, 1977, 1978, 1981, 1998 and 1999) and sites in the surrounding countryside: Aston Tyrrold (1936); Berinsfield (1936-38); Halfpenny Lane (1990); Lollingdon Hill (1990); Long Wittenham (1977); Moulsford (1990) and Wittenham Clumps (1948). These articles include excavation reports for specific sites as well as those debating broader topics: relevant here are those on ancient communications (2011), the Lower Iknield Way (1968) and the Roman road network (1986 and 1987). The possible Roman military origin of Dorchester-on-Thames has been particularly debated (Hogg and Stevens 1937; 1952-53; 1954). Informative papers in *Oxoniensia* include those relating to the local (and nationally important) Oxford Roman pottery industry at specific production sites, such as Foxcoombe Hill (1948). This local pottery industry has also been the focus of Fulford and Hodder's application of regression analysis for ware produced in the later Roman period (1974). Very little has been published recently however, relating directly to Roman Dorchester-on-Thames: the most recent article is that on the excavation at Abingdon Museum (2015). The sole publication concerned exclusively with Dorchester-on-Thames is that by Morrison (2009) who considers the influence of early antiquarian views on later archaeological investigations here, arguing for an enduring religious significance for the town site. Henig and Booth's *Roman Oxfordshire* (2000) includes an especially relevant evaluation of the town through the LIA/Early Roman transition period in relation to a discussion of the economy of the area during the Roman period.

Roman Dorchester-on-Thames is used as an example under various Roman small town themes in general publications, such as Burnham and Wacher's work where Dorchester-on-Thames appears under 'Minor Towns' (1990, 117-122). Much of the information here, including the map (1990, 118) is based on Sheppard Frere's excavations carried out in 1962 and 1963[81]. Discussion is focused on the town's defences and urban layout (roads); potential military and official activity and the apparent lack of involvement in the local pottery industry to the north of the small town. Esmonde Cleary included Dorchester-on-Thames in his list of defended towns concluding only that 'there is little trace of extra-mural occupation at Dorchester-on-Thames' (1987, 72); it is argued in this present study that the extra-mural space was exploited as farm land. Roman Dorchester-on-Thames

[80] The Oxfordshire Architectural and Historical Society (OAHS) journal publication.
[81] Published in the *Archaeological Journal* **119** and **141**

features in *Thames through Time* (Booth *et al.* 2007) where it is presented within the temporal context of LIA, Roman and Anglo-Saxon periods, and the geographical context of the Upper and Middle Thames River valley. Particularly relevant to this study are two of the topics covered in this synthesis: settlement evolution and the development of trade. On a county scale, Rowley's 'The Roman Towns of Oxfordshire' (Rodwell and Rowley 1975, 115-118) provides a short assessment of Roman Dorchester-on-Thames based on early excavations in the 1930s, Frere's in 1962 and Rowley's own in 1972, largely highlighting the antecedent LIA settlement evidence and the post-Roman Anglo-Saxon occupation evidence. Most recently, reference to Dorchester-on-Thames and c.13 peripheral rural sites can be found in the discussions included in *New Visions of the Countryside of Roman Britain* published by the Roman Rural Settlement Project (Allen *et al.* 2017).

6.6 Claims for market centre status

> Both towns [Dorchester-on-Thames and Alchester] are assumed to have begun as forts of the conquest period and to have developed subsequently as small market centres.
>
> (Young 1976, 136)

> …market-oriented economy of the late Roman town…
>
> (Dorchester-on-Thames Research Design)

Henig and Booth have defined Dorchester-on-Thames as a 'small town' on the basis of 'urban characteristics but without substantial public buildings' and placed it within a supposed conventional hierarchy of settlements in Roman Oxfordshire (2000, 52). Slightly confusingly the authors earlier refer to Dorchester-on-Thames as 'technically' a *vicus* (Continental definition) along the lines of those peripheral to Rome which, the authors claim, provided markets for the surplus produce of local villas (2000, 41). The lack of villa sites recorded anywhere near Dorchester-on-Thames[82] however throws doubt on this analogy.

Whilst it is apparent from the literature that Dorchester-on-Thames is generally considered to have been a market centre during the Roman period (cf. Henig and Booth 2000) the reasons for this thinking are not obvious. The market centre assumption appears to rest on

[82] Supposed villas include Sutton Courtenay and Drop Short (Dropshort is listed on the Antonine Itinerary as *Magiovinto* (Rivet and Jackson 1970, 42, 49)) c. 9 km from Dorchester-on-Thames, although little is known about either.

the town's location in the countryside in relation to local agriculture (including horse rearing (Miles 1982)) and the Oxford pottery industry, this leading to the surmise that the town was involved in at least the distribution of locally produced goods. The justification for this reasoning is, however, not easily supported by evidence.

6.6.1 Local communications routes: the river system and road network

Unlike the other case study small towns in this thesis, Roman Dorchester-on-Thames was not directly connected to *Londinium* by a major road (see Figure 6.3 and Table 6.2). It is by no means clear which settlements the town was connected to. Margary's road (160cc) for example, appears to have connected with the London-Silchester road (Margary 4a)[83] but this is not certain. In addition to the roads (see Table 6.2) Roman Dorchester-on-Thames was situated at the south-western reach of the ancient Icknield Way, a route which Margary supposed was adopted during the Roman period[84], affording a direct connection with East Anglia.

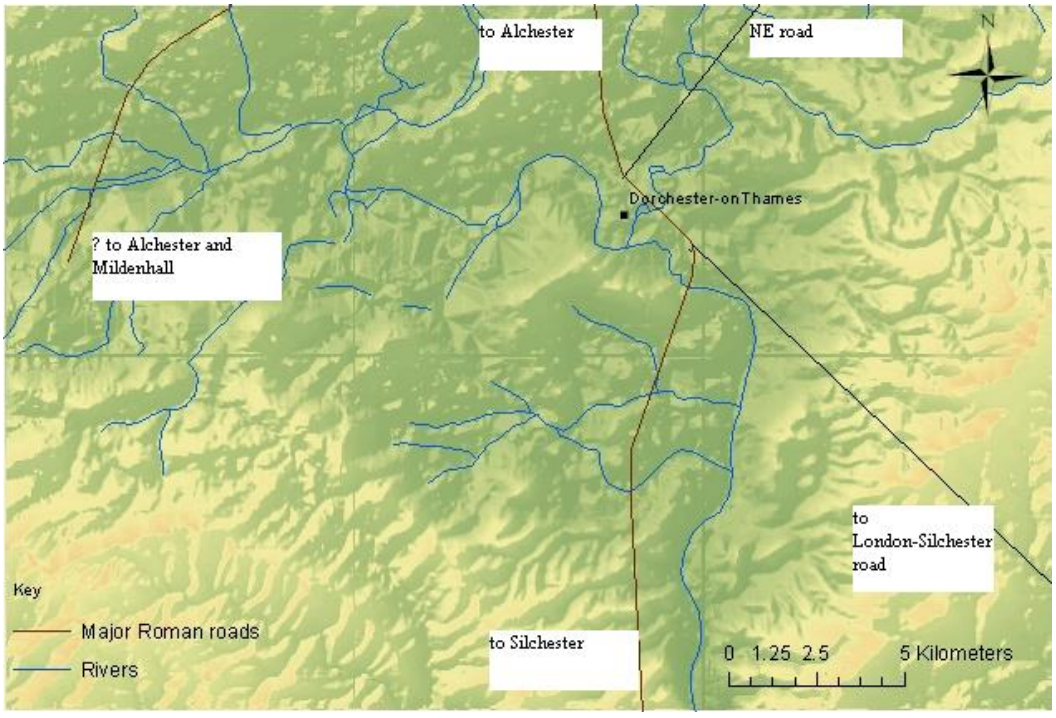


Figure 6.3 Situation of Roman Dorchester-on-ThameS (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

[83] Briggs' on-line map of the Roman roads of Britain (2013) does illustrate Margary's 160cc road heading south-east from the town as if to meet the London-Silchester road (Margary 4a), but having crossed the Thames River near Henley-on-Thames turns back as if to run directly to Silchester.
[84] Maurice, Hargreaves *et al.* (1968) took a sceptical look at the evidence of Roman finds reported at sites along the supposed route of the Icknield Way, combined with old map evidence and field observation, to assess whether the route was well-used during the Roman period. They found no evidence to suggest it was.

Table 6.2 Roman Dorchester-on-Thames – road network

Road	Direction from town	Destination	Distance (km)	Margary No.	Comment
No name	S	Silchester	33	160cc	N/A
No name	N	Alchester	28	160b[85]	Henig and Booth (2000, 49) suggest that the road was actually diverted to include Dorchester-on-Thames in its path.
No name	SE	Silchester/*Londinium* *Verulamium*	various	150cc	Appears to have connected town to Silchester-London road and/or a road to Verulamium.
No name	NE	unknown	30 to junction	173d	Runs to a junction with Akeman Street.
No name	SW towards town	?Dorchester-on-Thames	unknown	163a	Runs from Verulamium towards Dorchester-on-Thames, although full extent is unverified

There is no evidence for a road bridge located across the Thames River at Dorchester-on-Thames, although evidence of a bridge from the end of the 1st century AD[86] has been found much further to the north on the route of the Alchester road where it crossed the River Ray (Chambers 1986, 33). Excavation of this site revealed that during the 1st century AD this river was wider (approximately 10 m), full of thick silt and prone to meandering. The bridge construction (soon after AD 95) may be typical in that sites were chosen to span tributaries and avoid the main River Thames. There is no evidence for rebuilding of the bridge, as might be expected over a number of centuries, which suggests that it was not extensively utilised by heavy traffic transporting goods, although Chambers notes that a nearby ford may have offered an alternative crossing (1986, 36).

Apart from the roads, there is good evidence for a network of local trackways (revealed as cropmarks) believed to date to this period, running across agricultural land across the river at Long Wittenham (Baker 2002). These appear to connect to the Roman town from the south (Gray 1977, 27; Allen *et al.* 2010). No minor roads have been proven heading directly west to known contemporary settlements at Didcot, Abingdon or the religious centre at Frilford, or indeed towards distant Cirencester. A probable minor road has been

[85] This road was sectioned obliquely in 1981 (SU 5753 9535)during the construction of the bypass, to find that the metalling had been stripped so that no evidence could be found relating to ancient usage.
[86] http://www.arch.ox.ac.uk/reader/items/highlights-of-the-2017-excavation-season-at-dorchester-on-thames.html [Accessed 20.02.2018]

observed heading north-east past the Queensford Mill cemetery up the valley of the Thame, but this is very soon untraceable (the suspected route known only from cropmarks). At Mount Farm a southerly route east can been seen as a branch of the Lower Ickneild Way joining the Silchester road at the dog-leg just south of Dorchester-on-Thames (Henig and Booth 2000, 55).

Lambrick has argued that a network of minor roads and tracks, such as those at Long Wittenham, linked the local countryside to the major Alchester–Silchester through road (2010, 106). This local connectivity may reflect the continuation of a general pattern of LIA dispersed rural settlements in Oxfordshire into the Roman period, with new settlements, according to Henig and Booth (2000, 51), being more closely associated with the major Roman road network. If this is accepted, Dorchester-on-Thames would have been in a weak position as a market centre, with only loose connections with its 'hinterland' and no direct connection with any large town.

6.6.2 Fort and military supply centre

The mooted Roman fort (Frere 1962, 129) would bolster an argument for the earliest phase of Dorchester-on-Thames to have been a *vicus*. Remains of fortifications were reported along with wooden buildings of typical 1st century AD military construction (Frere 1963). Subsequent survey and excavation have failed to locate substantive evidence for a fort, although confirmation, or otherwise, is open to differing views[87]. The dates of the finds from the features uncovered by Frere suggested a date later than that of the Alchester fort (26 km to the north) of between AD 60-80 (Booth *et al.* 2007, 36), coinciding with the post-Boudiccan period of fort construction. If so[88], a fort at Dorchester-on-Thames may signify a strategic position in relation to tribal territories and centres, the nearest being Silchester (Tacitus *Agricola* xix-xxi) and securing of the river.

A *vicus* settlement could account for some evidence of LIA/Early Roman occupation (e.g. Gallo-Belgic pottery) in the land between the Dyke Hills and Dorchester-on-Thames, being consistent in terms of location to the mooted fort. However, finds of coins and military

[87] From his work at Kelvedon in Essex, Eddy has argued that the bare evidence of a military style defensive ditch is inadequate and evidence of identifiable internal features should be sought, before a fort site can be claimed (Eddy 1995, 119-128). In contrast, Wallace has argued that a lack of evidence for military occupation does not necessarily preclude the idea: finds such as pottery lamps 'the evidence for soldiers and veterans in early *Londinium* is scarce' , contrary to what might be expected (2014, 145) .

[88] One of the questions hoped to be addressed by the current excavations at Dorchester-on-Thames is whether the supposed fort did exist and whether it was constructed immediately after the Conquest, or later, after the Boudiccan rebellion (i.e. post c.AD 60).

metalwork are not sufficiently large enough to support this idea. Timby's analysis of the pottery from the St. Birinus School excavation (Torrance 1998, 192) has highlighted examples of imported fine wares from South and North Gaul and Lyon which may be linked to early military presence, this based on Willis' suggestion that there is a strong link between the distribution of Lyon ware and the location of the Roman military (Willis 2003). The construction of the later 2nd century AD defences has also been linked to military rather than civil initiative (Henig and Booth 2000, 59). If Dorchester-on-Thames had a military significance during the late 1st and 2nd centuries AD, this would have given the town a supply role for military personnel and involved a *vicus* community, but would also been exceptional in a southern British context for c. AD 75-200.

6.6.3 High density of Late Roman coin loss

Moore and Williams have pointed to the large proportion of Theodosian coin loss (Late Roman period) at Dorchester-on-Thames as a possible indication of officially sanctioned trade[89] (2007; Henig and Booth 2000, 189). A similar coin-loss profile for the late 3rd/4th century AD noted at Elms Farm/Heybridge (Guest 2015) has been thought to echo that of religious sites, such as Chelmsford, in East Anglia. Although more low value coins are found generally on sites from the Late Roman period (Henig and Booth 2000, 174), the reason for this is uncertain and may not necessarily point to commercial activity.

6.6.4 Urban industry

Henig and Booth (2000) have cited the examples of two small collections of iron tools in support of metal working activity (presumably smithing) as a supply connection between the town and its agricultural hinterland. Equally, the tools could have been for use of town residents working the land peripheral to the built up area. Evidence has also been advanced for lime burning based on remains of a central urban building reused in the late Roman period, attested by around 12 lime ovens constructed in the floor of the structure (Henig and Booth, 2000, 61). It is not known what the lime was produced for, although a supply would have been useful as a soil improver for vegetable harvests (the acidic Upper Thames Valley soils benefit from liming) or as cattle disinfectant. Alternatively, the lime may have been used for local construction work although there are no building remains to corroborate this practice locally.

[89] Henig and Booth have further suggested that this as evidence of a 'free market' economy (2000).

6.6.5 Local industry: Oxford potteries

The proximity of Dorchester-on-Thames to the Oxford pottery kiln sites which developed to the north east of the town, raises the question of the extent to which the town may have been involved in the manufacturing, distribution and marketing of the vessels. The fact that Dorchester-on-Thames appears to have prospered in the 3rd century when this industry reached its height (Later Roman period) may indicate a market centre role for the town, particularly due to its location, for trade with the south of Britain and London. However, no 'broken in transit' discarded pottery has been found and this role has not been confirmed (Fulford and Hodder 1974; Young 1977; 2000). Pottery may have been marketed directly from the kiln sites or through rural land owners.

6.7 Historical perspective and summary

Arguably, the more recent history of Dorchester-on-Thames has influenced, retrospectively, interpretation of the earlier Roman phase of the town. The Domesday Book for Dorchester-on-Thames records in 1086 a large settlement of 153 households with plough land and 50 acres of meadow belonging to the town. No woodland or mills are listed. The account from this period characterises a community engaged in arable and pastoral farming, rather than one engaged in craft or industry demanding of wood or water resources. This seems more resonant of the Roman period than the later 'early medieval period, when a market may have developed outside the bounds of the abbey' (Bradley 1978, 39): this resulting from the local influence of the church. Post medieval Dorchester-on-Thames is known to have existed as a modest town with an economy based on local agriculture. The small town prospered in the 18th and 19th centuries when an important coaching route from London to the west of Britain, attracted a number of inns and boosted the otherwise agricultural economy of the town (Moore and Williams 2007).

The belief that Roman Dorchester-on-Thames acted as a market centre seems to reside in both the character of the town in later periods in history, its situation central to productive agricultural land and proximity to the Oxford pottery industry. This is circumstantial and not based on archaeological evidence for the centralised collection and distribution of imported and locally produced goods.

Roman Ewell

7.1 Introduction

This chapter on the third case study town, Roman Ewell, examines the origin and geographical context of the town and the potential of the archaeological evidence to inform a closer understanding of the role of the town. The material is organised along the same lines as in previous chapters and includes an exposition of the market centre claims specific to Ewell.

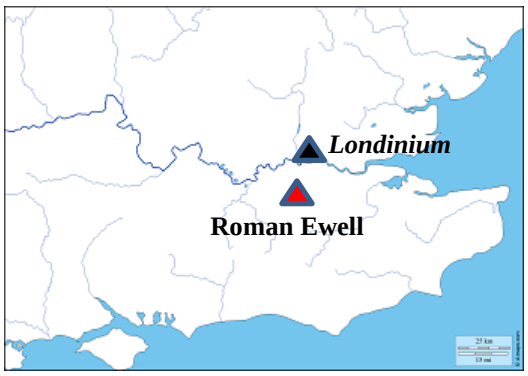


Figure 7.1 Location of Roman Ewell in relation to London (d-maps.com)

No Roman name is known for the settlement to the south of London at Ewell[90] (see Figures 7.1 and 7.2). The presence of LIA pottery sherds across much of the occupied area[91] (Cotton 1982, 170; Poulton 2003a, 13) suggests that the first residents of the Roman period were local people who continued to use traditional tableware and cooking pots (Burnham 1986, 190, 197). This early pottery continued to be used here well into the Early Roman period (Lowther 1949, 18; Willis *pers. comm.*). Early phase pottery evidence also points to a trading connection with Kent as 'Patch Grove' style pottery sherds, similar to those from Oldbury Hill, have been found here (Lowther 1949, 18). Religious significance has been mooted for the origin of the settlement based on votive finds[92] associated with the Hogsmill spring (a tributary of the Thames River) near the centre of the town and ritual deposits found in a series of chalk shafts. An Early Roman religious focus for the town may have contributed to the apparent diversion (from a straight line) of the path of Stane Street reflecting the desire for road travellers to visit the town. Potentially an established

[90] The name 'Ewell' may be derived from the Saxon/Old English word for a 'spring' (Bird 2004a, 147), indicating the location of a source of clean, possibly sacred, water, and is the earliest known name for the site.
[91] Specifically noted at Stane Way, Glyn House, Purberry Shot and North Looe sites and absent from the Church Meadow site on the northern limit of the town.
[92] Coins and other items have been recovered dating from the 1st to 3rd centuries, which appear to have been offerings made to a spring deity (Abdy and Bierton 2006, 126, 135).

religious focus may have supported a small amount of trade in goods and services. The settlement's position on Stane Street has also been claimed as the site of a *mutatio* in addition to which Sheldon and Schaaf accredit the settlement with an early local administrative function (1978) although the basis for this is uncertain.



Figure 7.2 Roman Ewell location on Ordnance Survey 6" map England and Wales 1842-1952 (National Library of Scotland Creative Commons Attribution -NonCommerical -ShareAlike (CC-BY-NC-SA) licence.)

Ewell appears to have been continuously occupied throughout the Roman period. According to Pemberton initial growth took place in the 1st and 2nd centuries AD, followed by a period of decline in the 3rd century AD, then a later period of revival in the 4th century AD (2015, 34). Although debated, 'Ewell has produced enough evidence for it to be clear that there was a nucleus of several buildings over an area large enough to warrant description as a town or large village' (Bird 2004, 49). Roman occupation of the site was later supplanted by a Saxon settlement (Abdy and Bierton 2006, 124).

7.2 Site and situation

NGR: Tile + Eastings + Northings	TQ 2190 6268 (centre)
Ordnance Datum	40 m
Settlement area (greatest extent achieved over the Roman period)	6 ha[93]

Roman Ewell was established on a low ribbon of Thanet Sand sandwiched between a broad band of Lambeth clay, silt and sand (Hayman 1995, 1) and a chalk ridge [94]. To the west of the town a broad band of sand and gravel river terrace deposits gives way to the valley bottom of London clay truncated by the Thames River. An important attribute of this site is a clear spring line issuing from between the rock strata; one spring is the main source of the Hogsmill River (a tributary of the Thames River) at the modern site of Bourne Hall Park (TQ 219627) and the site of possible ancient religious ritual.

The soil profile associated with this geology can be described as generally loamy, clayey and fertile; more water-retentive to the west of the town than to the higher chalk landscape to the east. Modern assessment of these local soil types indicates an environment of natural grassland suitable for pasture[95], with grazing for sheep and cattle on marshy areas of land and the chalk ridge (Branch and Green 2004, 15). The residents of Roman Ewell would also have been able to take advantage of the loamy soil to grow a range of crops, including vegetables and fruit.

Paleoenvironmental data from sites excavated at Southwark, around 20km to the north of Ewell, confirms regular historic flooding of the Thames River (Branch and Green 2004), which almost certainly affected the valley bottom as far as Ewell. Extensive flooding is

[93] Pemberton, F. http://www.epsomewellhistory.org.uk/roman-ewell/4548343456 [Accessed 25.7.2016]
[94] British Geological Survey: Geology of Britain viewer
http://mapapps.bgs.ac.uk/geologyofbritain/home.html
[Accessed 28.02.2018]
[95] http://www.landis.org.uk/soilscapes/#

thought to have been at least partly due to the deforestation of the Thames Valley in the BA and IA[96], which may have limited the supply of fuel to the Roman settlement at Ewell, and to the settlements at Southwark and *Londinium* too. A supply of wood may have alternatively been sourced from the Weald Valley to the south and collected in the town for onward distribution to the latter centres, although no evidence has been found to substantiate this proposition.

The intersection of the conjectured tribal borders (Booth 2007, Fig. 7.7, 374) of the *Cantiaci* (to the east), the *Regni* (to the south) and the *Atrebates* to the west may have initially stimulated the growth of Ewell as a place of trade and exchange. Although often alluded to in literature on the siting of small towns, this reasoning is not borne out here by any particular evidence.

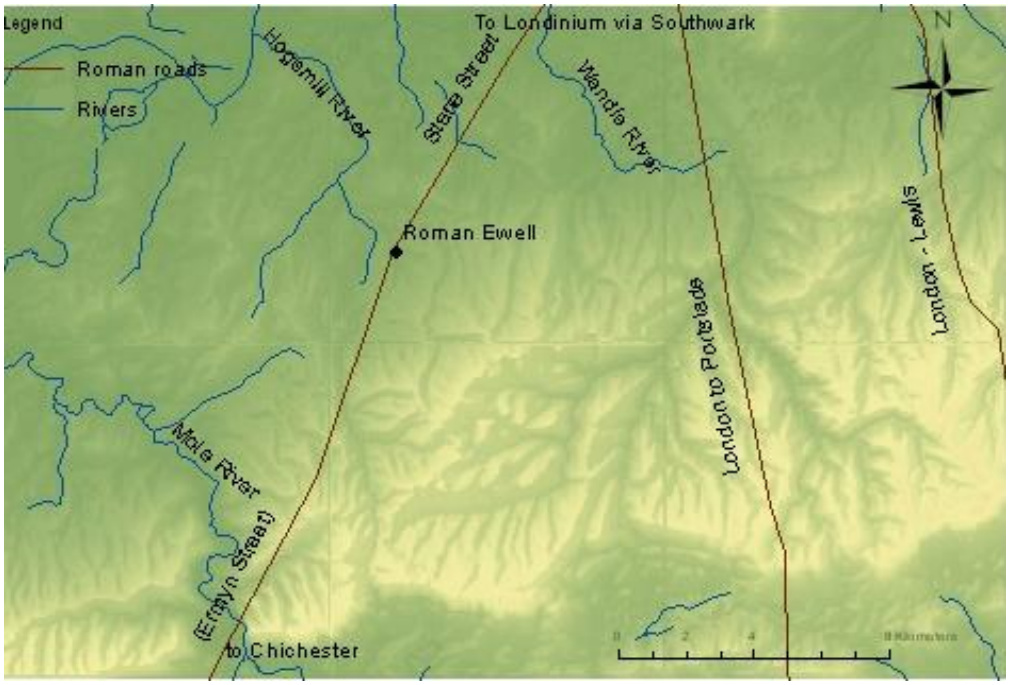


Figure 7.3 The location of Roman Ewell in relation to road and rivers.(Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008)).

7.3 The river system

As already mentioned, the Hogsmill River rises in the centre of Ewell (Figure 7.3); it flows north-west across country for approximately 9km, where it discharges into the Thames River at present day Kingston upon Thames. The regular inundation of the Thames Valley

[96] Significant deforestation across areas of Britain may have contributed to the exploitation of coal during the Roman period (Dearne and Branigan 1995).

(discussed above) would have had implications for land use to the west of the town. It is not known to what extent the Hogsmill River was suitable for transporting goods, exploited for fishing or harnessed for milling during the Roman period, although the Domesday Book later (1086) records two mills working in the town. Permanent structures, such as quays however, would have been undermined by flooding, making such facilities unattractive for loading and unloading goods by the river's edge, although less formal solutions may have existed.

Contemporary Roman sites to the east of Ewell (modern Croydon) were located close to the Wandle River, another tributary of the Thames River, the confluence of which is significantly nearer to Southwark, at Wandesworth, than that of the Hogsmill River at Kingston upon Thames. If the rivers were used for transporting goods, then there may have been competition between the two centres to supply Southwark and *Londinium*.

7.4 Archaeological interventions

Roman Ewell first came to the attention of antiquarians in the 19th century (e.g. Diamond 1847) when a series of 'ritual' shafts driven into a local chalk outcrop were discovered by quarry men. Between the 1930s and 1950s archaeologists (notably A.W.G. Lowther, Winbolt and S.S.Frere) incidentally found evidence of a Roman settlement whilst searching for a section of Stane Street. From their initial finds, Winbolt (1936) proposed that Roman Ewell had been an enclosed settlement of around 12 ha with two approach roads forming a crossroads in the middle of the enclosure; essentially a 'small town'. Since Winbolt's study, a number of archaeologists have led digs in and around the small town (Table 7.1). Lowther originally investigated Roman occupation nearby at Ashtead (1930), before focussing on individual sites within Ewell (1935, 1936, 1949); latterly excavating the villa site at Walton-on-the-Hill (1950). His work was largely written up as journal articles for Surrey Archaeological Society (SyAS) collections series. Frere excavated a number of sites within the small town in the 1930s; later in the 1960s C. R. Orton excavated the site at the King William IV public house (1997). Two key aims were shared by these interventions: identifying the route taken by Stane Street and increasing the body of work on Roman pottery finds from the settlement.[97] This tight focus is likely to have coloured interpretation of both the individual sites and perception of the settlement as a whole. More recent excavations however, particularly that at Church Meadow, have aimed at a broader understanding of the town.

[97] See C.R.Orton and P. A. Tyers paper on pottery sherd quantification (1992)

A lot of attention has been directed at establishing the exact route of Stane Street through Ewell (Lowther 1935; Margary 1948, 73-6; Abdy and Bierton 2006, 138) and trying to rationalise three apparently differently aligned road sections (Hall and Pemberton 2006, 2-5; Pemberton 2015, 33). Preoccupation with the route of Stane Street has had the demonstrative effect of concentrating archaeological interventions along a narrow corridor. Inadvertently this has given the settlement a 'roadside settlement' quality and probably only represents part of the settlement. With this in mind, Orton cut a trench at a right angle to Stane Street in St. Mary's churchyard for the purpose of establishing the extent of occupation away from the road (Orton 2016, *pers comm.*)[98]. Occupation was found to be no more than a single property deep, but this is unsurprising as the site is effectively on the northern limit of the town, several hundred metres from the centre (nucleus) of the settlement.

No large scale projects, such as gravel extraction or cross-country pipeline installations, have required archaeological responses in this part of Surrey and investigations have concentrated on known Roman occupation sites. Within the town small scale interventions have been possible ahead of minor construction activity. Only the Church Meadow site has been subject to planned sustained excavation[99], including environmental sampling. The most recent investigation has been that on the NESCOT site close to the eastern edge of Ewell (Pre-Construct Archaeology), which has found evidence of Roman burials[100]. Outside the town, the Ashtead tile kiln and villa sites have been excavated and reported by SyAS (in *Bulletins* and *Collections*) over a period of years. The Croydon area has been subject to expansive housing development over the past 150 years, much of which was undertaken before provision for the systematic recording of archaeology and so much evidence may have been lost or built over. The data available from all the source interventions in the Ewell area has been reviewed and presented in Table 7.1.

[98] This came out of a discussion at a SyAS meeting and is repeated by Orton in his paper: Orton, C., (2000) St. Mary's No.5 Churchyard, Ewell, Surrey, unpublished summary report (copy in Bourne Hall Museum, Ewell)
[99] Report in preparation (Cowlard *pers. comm*.).
[100] Unpublished at the time of writing.

Table 7.1 Summary of Archaeological Interventions in Roman Ewell and sites within approximately 10 km[101]

Site	Location TQ	Intervention Year	Excavator	Area	Aim/purpose	Reporting quality	Information value
Ashtead villa and tile works	17626002	2013	SyAS	100m x 100m	Evaluation	Journal article. Limited detail.	Moderate
Ashtead villa and tile works	17626002	2014	SyAS	100m x 100m	Evaluation	Journal article. Limited detail.	Moderate
Ashtead villa and tile works	17626002	1927-8	Lowther, A.W.G.		Evaluation	Journal article. Detailed	Good
Ashtead villa and tile works	17626002	2007	EHRD	1.5 ha	Evaluation	Limited detail	Moderate
Beddington villa	29806580	2005	Molas		Evaluation	Detailed	Good
Beddington villa	29806580	1982	SyAS	80m x 60m	Evaluation	Limited detail	Moderate
Burgh Heath, Chapel Way	23905810	2012	TVAS		Investigation	Limited detail	Moderate
Carshalton, former Queen Mary's Hospital	27806240	2008	WA	12 ha	Evaluation	Detailed	Good
Chessington, Barton (? Barwell) Court Farm	16906320	2010	SCAU	12m x 1.8m trench	Evaluation	Detailed	Good
Chessington, Mansfield Road	17506400	2001	OA	40m x 20m trench	Evaluation	Limited detail	Moderate
Chessington, St. Mary's	18526359	2011	AOC	15m x 1.6m trench	Evaluation	Limited detail	Moderate
Croydon, Lower Coombe Street	32266488	2005	PCA	25m x 25m	Evaluation	Detailed. Expert contribution	Good
Croydon,15-17 Brighton Road	32776303	1993	MoLAS	225m sq	Evaluation	Detailed	Good
Croydon,15-17 Brighton Road	32776303	1847	Diamond	unclear	Evaluation	Limited detail	Moderate
Croydon,15-17 Brighton Road	32776303	1934	Lowther, A.W.G.	multiple sites	Evaluation	Journal article. Limited detail.	Moderate
Croydon,15-17 Brighton Road	32776303	1936	Lowther, A.W.G.	unclear	Evaluation	Journal article. Limited detail.	Moderate
Ewell, Austyn's Lane	22056279	2003			Evaluation	SMR 1140 notes	Poor

[101] Empty cells denote uncertain (?) or unavailable data. For 'Excavator' abbreviations and an explanation of 'Information value' see Appendix A.

Ewell, 2-16 West Street	21906250	1985	SCC	50m x 50m	Evaluation	Limited detail	Moderate
Ewell, 2-16 West Street	21906250	2003			Rescue	SMR 3056 notes	Poor
Ewell, 24-26 High Street	21906260	2003			Rescue	SMR 3057 notes	Poor
Ewell, 46-50 High Street	22006253	1994	SCAU	20m x 40m	Rescue	Journal article. Detailed. Expert contribution	Good
Ewell, 56-58 High Street	21986249	1965		Modern foundation trenches	Watching brief	SMR 1164 notes	Poor
Ewell, 7 High Street (PO yard)	21996268	1963		'excavations'	Investigation	SMR 1149 notes	Poor
Ewell, 82-83 High Street	21956241	1965		Modern foundation trenches	Watching brief	SMR 1159 notes	Poor
Ewell, Church Field	22156294	1976-8	EEHAS	unknown	Evaluation	2nd hand	Poor
Ewell, Church Meadow	22126297	2012	SyAS/EEHAS	10m x 30m	Evaluation	Journal article	Poor
Ewell, Church Meadow	22126297	2013	SyAS/EEHAS	10m x 60m	Evaluation	Journal article	Moderate
Ewell, Church Meadow	22126297	2014	SyAS/EEHAS	55m x 10m	Evaluation	Journal article	Moderate
Ewell, 2 and 18 Church Street	22136290				Trial excavation	SMR 3058, 1157 notes	Poor
Ewell, Council School	21896250	1939	Frere, S.S.	100' x 50'	Investigation	Journal article. Detailed	Good
Ewell, Ewell House	21906244	1934	Lowther, A.W.G.	40m x 40m (2 trenches)	Rescue/evaluation	Journal article. Limited detail.	Moderate
Ewell, Glyn House	22056280	1992	EEHAS	minor trenches	Evaluation	Report. Limited detail	Moderate
Ewell, Glyn House	22056280	1953			Excavation	SMR 2541 notes	Poor
Ewell, Glyn House	22056280	2003	OA	trenches over ~ 60m x 60m	Investigation/evaluation	Journal article. Detailed. Expert contribution.	Good
Ewell, Grove Cottage	22056245	1935	Lowther, A.W.G.	unknown	Evaluation	SMR 2532 notes	Poor
Ewell, Grove Cottage	22056245	1972	SyAS/ EEHAS	20m x 80m	Investigation	Journal article. Detailed. Expert contribution.	Good
Ewell, Grove School	21936244	1940	Frere, S.S.	unknown	Evaluation	SMR 1129 notes	Poor

Ewell, Grove School	21936244	1970-72	EEHAS	~ 40m x 40m	Evaluation/intervention	Journal article. Detailed. Expert contribution	Good
Ewell, Hatch Furlong	22106230	2006	SyAS/EEHAS	~20m x 40m	Evaluation	Journal article. Interim report	Moderate
Ewell, Hatch Furlong	22106230	2009	SyAS	~50m x 200m	Evaluation	Journal article.	Poor
Ewell, Lord Nelson Public House	21976245	1963			Watching brief	SMR 1148 notes	Poor
Ewell, Holman Court	22146281	1933			Observation	SMR 1146 notes	Poor
Ewell, King William IV	22006260	1967-79	Orton, C.	50m x 20m (26 trenches)	Evaluation	Detailed.	Good
Ewell, London Road Plantation	22156314	1936	Not specified	small section	Evaluation	Journal article.	Moderate
Ewell, The Looe	22261618	1945-52	Walls,T.	20m x 60m, 20m x 40m	Investigation/evaluation	Journal article. Detailed. Expert contribution	Good
Ewell, NESCOT	22456177	2012-14	EEHAS/ SyAS	10m x 100m	Evaluation	Summary presentation	Moderate
Ewell, North Looe	22806080	1946-9		unknown	Evaluation	SMR 1101 notes	Poor
Ewell, Old Rectory Garden	22156265	1952			Excavation	SMR 1131 notes	Poor
Ewell, Priest Hill Farm	22806120	1945-52	Walls,T.	50m x 50m	Evaluation	Journal article. Detailed. Expert contribution	Good
Ewell, Purberry Shot	21856214	1939	Lowther, A.W.G.	250' x 100'	Evaluation	Journal article. Detailed.	Moderate
Ewell, St. Mary's churchyard	22406315	1974-5	EHAS	8m x 2m trenches x 2	Evaluation	Detailed report	Good
Ewell, St. Mary's churchyard	22206310	1934, 1971			Evaluation	SMR 1139, 1171 notes	Poor
Ewell, St. Mary's churchyard	22166300	1952-95	grave diggers		grave digging	SMR 1138 notes	Poor
Ewell, Stane Way (Fairfield)	22056235			5 sections	Evaluation	SMR 1133 notes	Poor
Ewell, Staneway House	22126222	1847/1860/ 1866			Evaluation	SMR 1137 notes	Poor
Ewell, Tayles Hill	21756230	1922	CSAS	10' x 20'	Evaluation	Journal article. Limited detail.	Poor
Ewell, The Grove	21906230	1970-2	EEHAS	40m x40m + 30m x 100m	Intervention	Detailed report	Good

Ewell, Vicarage	22146281	1929			Observation	SMR 1146 notes	Poor
Kingston upon Thames, Skerne Road	17906970	2002	PCA	150m x 100m	Evaluation	Detailed report	Good
Kingston upon Thames, Skerne Road		2002	Bradley, T.	33m x 21m	Evaluation	Detailed. Expert contributions	Good
Leatherhead, Woodlands Park	15105870	1960s	Hal, A and Stanley, P.	unspecified	Pottery analysis	Journal article. Detailed	Good
Sanderstead, Atwood	34216074	1960	Little, R.I.	200' x 250'	Evaluation	Journal article. Detailed	Moderate
Tolworth, Alpine Avenue	20346590	1996	DGLA	60m x 80m	Evaluation	Journal article. Limited detail.	Moderate
Walton Heath	23085367	1948-9	Pres, E. J. and J.Parrish	150' x 150'	Evaluation	Jounal article. Descriptive	Poor
Walton-on-the-Hill	23305570	1948	Lowther, A. W.	150' x 80'	Evaluation	Journal article. Detailed	Moderate

7.5 Literature review

Minor references only are made to the Roman settlement in the volume by Rodwell and Rowley (1975). The material and data collected for the purpose of reviewing the market centre status of Roman Ewell, has been largely sourced from short reports and grey literature. Additional information has been afforded by individual archaeologists who have worked on some of the excavation sites and from the author's own (modest) experience of excavating on the Church Meadow site. No books or monographs on Roman Ewell have been published as yet. The most comprehensive publication to-date is that of Pemberton (2015) who has written up the work on St. Mary's Churchyard. In a wider context, various aspects of Ewell are discussed in Bird's *Roman Surrey* (2004), together with a synthesis of material on local Roman villas, roads and industrial sites.

Literature on Ewell has tended to focus on issues regarding settlement status. Contrary to Winbolt's defended small town (1936), Pemberton has argued that the evidence for this amounts to 'two stretches of a palisade and ditch system' (1973, 85-6). At c. 1 m deep and c. 1.5 m wide the ditch may represent a formal boundary to the settlement, but is unlikely to have been for defensive purposes (1973, 85-6). Various alternative statuses have been mooted for the small town, including that of a 'village', 'roadside village' (Poulton 2003a, 18) and a market centre of the 'third-level', that is to say of a status lower than 'small town' (Orton 1997). According to Poulton, 'archaeological opinion has now decisively turned against the earlier tendency to regard such places [Ewell] as small towns' (2003, 13) and that they should alternatively be thought of as 'small market centres', occupied with passing trade and distributing goods and services to the local community. Bird has suggested that several roadside settlements to the south of London may have formed part of a ring of market centres founded around the city at a radius of approximately 15-20km. If so, Ewell might be included along with Merton, Kingston, Croydon and Dorking (2004, 48-49). For the purpose of this thesis it is considered that there is sufficient evidence to accept the settlement of Ewell as a 'small town'.

The most recent excavations of sites within Ewell and in the rural hinterland have been carried out and written up by Nonsuch Antiquarian Society, Surrey County Archaeology Unit (SCAU), Epsom and Ewell History and Archaeological Society (EEHAS) and Surrey Archaeological Society (SyAS). Material relating to the town has been summarised in an Extensive Urban Survey (Poulton 2003a), in which the author notes that for such a small settlement there 'is a surprisingly large body of archaeological and historical information'

(*ibid*, 2), but that the 'nature of the Roman settlement at Ewell cannot yet be defined with any certainty or precision, despite the relatively large quantity of evidence' (*ibid*, 13). The relatively large number of dispersed excavations and finds from different periods at Ewell have been summarized by Abdy and Bierton in *A Gazetteer of Romano-British archaeological sites in Ewell* (1997; the later revised version, 2006, is used here). The Roman Rural Settlement Project has included seven developer-led sites within the approximate area of urban Ewell and seven sites peripheral to the town within 10 km radius[102].

The most recent town site to receive attention is that of St. Mary's Church Meadow (SyAS); excavations here concluded in 2014, but at the time of writing no report has been finalized. Pemberton's account of the excavations at the adjacent St. Mary's churchyard between 1974 and 1975 (2015) outlined the phases of Roman occupation identified in the excavation trenches, and documents the finds, mainly pottery and metal work. In addition to this material Pemberton includes two informative discussion chapters: 'Comparative context', which summarises the development of Ewell and the 'Concluding discussion', which sets out the author's understanding of the function and purpose of the settlement. Both of these chapters clearly benefit from the archaeological attention that Ewell has received since the churchyard excavations of mid-70s, and clearly align with traditional thinking about Roman Britain. Pemberton considers how 'Romanised' the occupants of the town might have been and is keen to promote the settlement as a market centre. This is the most comprehensive published work on Roman Ewell to date and exemplifies general perception of the Roman town.

7.6 Claims for market centre status

> Ewell was well situated to act as a redistribution centre as well as an entrepôt for factors buying up food and fuel for the city [London]. (Pemberton 2015, 35)

Claims for market centre status in the source material are largely based on the geographical situation of Roman Ewell in relation to Stane Street and *Londinium* (via Southwark and the river crossing) and the south coast. Further claims allude to the idea of the town as a religious centre, a local agricultural centre and as a low-key industrial centre.

[102] Ashtead - tile kilns/villa, Walton-on-the-Hill - villa/farm, Burgh Heath - farm, Carlshalton (Queen Mary's Hospital) - farm, Old Malden vicarage - farm, Alpine Avenue Tolworth - farm, Chessington (Mansfield RAF) – farm. As with other small towns in this study, the individual sites included on this website vary a little from those researched independently for this thesis, in part at least due to slight differences in map representations.

7.6.1 The significance of the road network

The geographical situation of Roman Ewell is dominated by the Roman road constructed between Southwark 21 km to the north, and hence *Londinium*, and *Noviomagus Regnensium* (Chichester) 80 km to the south (Margary 16); known since Saxon times as 'Stane Street'[103] meaning 'stone street'[104] (Bird 2004, 42). Usually thought to have been built sometime between AD 50 and AD 70[105], this date range relies on evidence from stretches of the road identified to the north, nearer to the Thames (Pemberton 2015). The possibility that Ewell started as a posting station or *mutatio* on this route has been mooted (Pemberton 1973), contra Bird (1987, 171: 2004, 43) who has argued that Ewell is too far south from *Londinium* to have fulfilled this function, and suggests Merton as a more suitable location. Aside from this debate, Roman Ewell's position on Stane Street may have offered high potential for commercial exploitation of goods and the needs of people using this road.

Other than Stane Street, there may have been a second major route in the Roman period connecting Staines-upon-Thames with Ewell (Bird 2004, 46), although the evidence for this at present is scant. Millett has argued for a further major Roman road connecting Winchester with *Londinium* (again via Southwark) but at present only known to run northward from Winchester, through Roman Neatham as far as Farnham (1975). From a junction here a course parallel to the Hogs Back ridge is favoured for the road (Callow 2015 *pers. comm.*; Bird 2004, 162), cutting across country via Chertsey or Ewell to form another junction with Stane Street. If proven, this route may be significant in understanding the distribution of Alice Holt pottery in the direction of London, potentially involving a marketing role for Roman Ewell.

Also possibly forming a junction with Stane Street at Roman Ewell was an ancient trackway, traceable near Farnham in Hampshire, running eastward across the North Downs to the Medway area of Kent (Pemberton 1973, 84). Similarly an ancient path ran through

[103] The stretch further south near Leatherhead is in fact marked 'Ermyn Street' on the OS 6" map, although this is clearly on the same alignment as Stane Street; the same road? On some maps, the OS 6" 1888 -1913 is an example, to the south of Ewell this road is also marked as 'Ermyn Street'.
[104] A length of this road uncovered at the Church Meadow site appears to have been a causeway construction about 6m wide, but with no flint or metalling remains, having been entirely robbed out (Cowlard 2016 *pers. comm.*). The type of raised construction used suggests locally waterlogged land.
[105] The stretch excavated at Fairfield (Ewell) has been dated by pottery inclusions to the late 2nd C (Lowther 1936, 146) – this date could indicate later repair work.

Sanderstead (Little 1964, 29) to the east of Ewell apparently from the south coast as far as Southwark, providing an alternative trade route across the South-East (Little 1964, 35).

Ostensibly Roman Ewell was in a good location to take commercial advantage of a network of routes across south-east Britain; a source of potential prosperity to the town. However this may have been undermined by the proximity of another major road which connected Southwark (*Londinium*) with Portslade on the south coast (Potter 1993; Taylor 2011). This latter route had the benefit of a natural harbour in the Portslade-Shoreham area created by longshore drift at the mouth of the river Adur, convenient as an access point for Continental trade; though no robust evidence for a Roman harbour there has emerged to date (Willis *pers. comm.*).

7.6.2 Roman Ewell and London

The geographical relationship of Ewell to Roman London, connected directly by Stane Street, has been instrumental in the belief that the small town must have acted as a market centre relaying goods to and from *Londinium*. As a proponent of this idea, Pemberton's initial evidence relies on the relatively close distance (c. 20 km) between the two centres and the apparent concordance of growth and decline between the two settlements (2015, 34). Pemberton sees Roman Ewell's fortunes as heavily reliant on the demand and supply of goods to/from *Londinium* (2015, 35), believing that when the city declined during the Mid-Roman period, the inhabitants of Ewell were obliged to scale back: previously involved in roadside trading activities properties are then interpreted as having been reused for agricultural and domestic purposes. However, a general Mid-Roman period of settlement decline has been observed across Britain and is not unique to here.

Pemberton has also argued that material, such as iron ore from the Weald and Greensand stone (Upper or Lower not specified)[106], was transported by cart northward along Stane Street through Ewell, but that the heaviest trade was actually southward from *Londinium* towards the coast. Flow in this direction he has argued, accounts for the apparent distribution of pottery ware finds from *Verulamium* and the Oxfordshire kilns via this route (2015, 35). Whilst it is possible that Stane Street was utilised in this fashion, no material evidence (e.g. storage buildings) has been put forward to support Roman Ewell as a central collection/distribution point for any products.

[106] Only a few Greensand quern fragments have been found in Ewell and may be accounted for by the common practice of reusing stone as building construction material in later periods.

Orton has similarly argued that the economic purpose of Roman Ewell was to supply *Londinium* and should more accurately be deemed a market centre of the 'third-level', that is of a lower status than a 'small town' (1997). This idea is largely based on butchery marks on bones found at the King William IV site which he saw as evidence of wholesale meat preparation destined for the London market. Orton has further suggested that insights might be gained by comparison of similar evidence with other 'gateway' sites to London such as Staines-upon-Thames (Orton 1997, 118). This resonates with Poulton's claim that ' archaeological opinion has now decisively turned against the earlier tendency to regard such places [Ewell] as small towns' and that they should be thought of as 'small market centres' (2003a, 13). Whatever level of market centre is accepted, neither theory has been backed by positive evidence that the settlement was involved in any organised central marketing, as Orton, Poulton and Pemberton clearly believe it to have been.

7.6.3 Roman Ewell as a religious centre

Ten deep shafts found cut into the chalk at Ewell (Diamond 1847), thought to have been used for burials[107], can only have been dug for a religious purpose as they were 'too deep for pits and in the wrong place to be wells' (Bird 2004, 149). Further similar chalk burials have recently been excavated on the NESCOT site on the eastern edge of the town (Pre-Construct Archaeology, awaiting publication – 2016). These burials, along with finds of probably votive offerings retrieved from the Hogsmill spring (Abdy and Bierton 2006, 126; Poulton 2003a; Pemberton no date) have led archaeologists to suppose Roman Ewell had a religious function. Bird goes so far as to compare this site to that at Springhead in Kent (Bird 2004, 149), even mooting the possibility that there could have been a temple here (*ibid* 150). Whilst further debate over a religious focus is not directly relevant to this thesis, if Roman Ewell did function as a religious centre (Poulton 2003a, 6) this would have had implications for the economic activity of the town. If so, this suggests that a high proportion of the town's inhabitants were indigenous, so as a religious centre this site may only have had local importance. Even if Roman Ewell had a degree of religious significance, this may only have had a minimal impact on the supply of goods and services.

[107] A number of pits and shafts have been found sunk into the chalk with what has been interpreted as ritually deposited fill. At least one pit included a complete pot which could represent a votive offering, whilst the excavated shafts were found to include the bones of several dogs and horse heads, items traditionally associated with religious rituals.

7.6.4 Market centre for agricultural produce

Pemberton has proposed that Roman Ewell acted as a 'market for agricultural produce from farmsteads on the chalk hills' (2015, 35), although particular farmsteads are not identified. If a regular surplus of goods (beyond subsistence and tax dues) was 'sent to market' in Ewell for consumption the implication is that the town residents grew little of their own food and were otherwise occupied in activities such as crafts, industries or services. There is very little evidence for these activities. As far as farmsteads and villa estate activity in this area is concerned, Bird has stated that very little is known (2004, 86) and suggests that the villa economies here may not have been based on agriculture at all, but more specialist activity such as forestry (perhaps supplying wood to *Londinium*). Certainly the Ashtead Common villa was involved in the manufacture of tiles, possibly not just for the villa as a few examples have been found further afield (Lowther 1930; Bird 2013, 2014).

Views have differed on the nature of Roman Ewell as an agricultural market centre and proffered evidence sometimes differently interpreted. For example, Pemberton discounts Orton's belief (1997, 118) that animals were butchered wholesale in the town for consumption in *Londinium,* arguing for the local use of animals for sacrifice and religious feasting. On the other hand, it has been argued from animal bone analysis (recovered from the churchyard) that the cattle raised locally around Ewell were generally kept for milk or ploughing, and only killed for meat when no longer able to carry out these tasks, whilst sheep were kept for wool rather than meat (Pemberton 2015, 29). The evidence upon which these claims are based is considered in detail in the chapters of this thesis on agricultural production.

The idea that Roman Ewell functioned as a centre for a wool industry (Bird 2004, 62) is largely based on evidence of a single find of an iron comb. Although this particular comb is of a type commonly used in the processing of wool to draw out fibres in Gaul (Wild 2009, 25), as a single find it cannot testify to a local 'industry' in Roman Surrey. Evidence for wool being collected, treated (washed and dyed), spun and woven in Roman Ewell has not been identified to date.

7.6.5 Minor industries

There is some evidence for iron working in the vicinity of the town during the IA with iron ore was being brought to the settlement probably from the Weald area to the south or from

the Bracklesham Beds[108] (Hunt 2002, 121). Pemberton claims that there is some evidence for iron working from Roman Ewell although he does not specify where or of what type (2015, 35). The iron finds from the settlement include nails, latch lifters, an ox-goad, a knife blade, a reaping hook and a single stylus, but there is no evidence (e.g. of smithing waste) that these items were made in the town. It is therefore most likely that Roman Ewell produced or repaired iron tools, or provided smithing services, on a small domestic rather than commercial scale.

7.7 Historical perspective and summary

Ewell is recorded in the Domesday Book (1086) as a modestly sized settlement. As the smallest of the Roman small town case studies, there is some continuity in the fact that the later medieval population was not large. Only 48 villagers are listed with 4 smallholders, farming a mixture of agricultural land: ploughed land, meadow, grazing pasture and woodland. This represents a range of agricultural endeavours possibly not dissimilar to that of the Roman period. Not until the early 17th century is there any reference to a market in the town when the lord of the manor, Henry Lloyd, was granted a licence in 1618 for a regular Thursday market (Malden 1911, 278); the location of this market was apparently at the junction of the High Street and Church Street.

The claims that Roman Ewell functioned as a market centre rest on the geographical situation of the town and position on the road network radiating from London. Archaeological interventions for the Roman period have concentrated on sites close to Stane Street, emphasising connectivity, and have provided little evidence for activity away from this focus. The idea of Roman Ewell as a market centre has also been coloured by the role of the town in later periods. The data review in the second part of this thesis looks in more detail at agricultural production and the movement of goods through this area to assess the claims made.

[108] Approximately 15km to the west of Ewell.

Roman Neatham

8.1 Introduction

The organisation and scope of material covered in this chapter on the fourth case study small town, Roman Neatham, follows a similar format to that of the previous three. Again, the purpose of this is to set the town in a geographical and historical context before defining and assessing the claims for market centre status. Further material relating to agricultural production and the distribution of quernstones and pottery is reviewed in the next section of the thesis.



Figure 8.1 Location of Roman Neatham in relation to London (d-maps.com)

It is generally now accepted that the site of Roman Neatham[109] to the south-west of London (Figures 8.1 and 8.2) equates to *Vindomi* (contra Rivet and Smith 1979), listed on the *Antonine Itinerary* on route XV between Silchester and Chichester[110]. The remains of a probable *mansio* to the north of the town have been used to substantiate this assertion (Millett and Graham 1986). Whilst there is no record of any LIA settlement on the site, a few IA pottery sherds have been found (Millett 1975, 214). There is further evidence for early occupation in the general area in an IA enclosure c. 1km to the north-east sited on higher chalk ground (Millett 1975, 214) and c. 2km in the same direction, an IA hillfort has been identified on Holybourne Down (Millett 1981; Powell 2014, 20). The majority of known IA sites in this region however are to be found closer to Basingstoke, 14 km to the north-west, at sites such as Viables 2 (Vaughan 1999) and Kennel Farm (Parry 2002), and close to the Alice Holt potteries.

The town is generally thought to have begun as a roadside settlement beside the Silchester-Chichester road, between AD 70 and AD 90 (Burnham and Wacher 1990, 265).

[109] The location of Roman Neatham is now largely covered by housing alongside the A30 between Holybourne and the hamlet of Cuckoo's Corner, across the River Wey from the current hamlet of Neatham.
[110] This belief is supported by the comparison of road distances stated in the *Itinerary* with distances along known Roman roads.

Notwithstanding the existence of at least one early major road, no evidence of any early military presence has been found in the town (Millett 1975, 216; Burnham and Wacher 1990, 265). Further development took place in the Mid-Roman period (Burnham and Wacher 1990, 265) including the institution of substantive ditches in the late 2nd century AD, often thought to have been defensive in purpose but perhaps more to do with defining space. Short-lived, they were subsequently filled in during the early 3rd century AD. The town seems to have flourished during the Late Roman period (3rd/4th centuries AD) which, Millett argues, may have been linked to the success of Alice Holt/Farnham pottery production during this period (Millett 1975, 216).

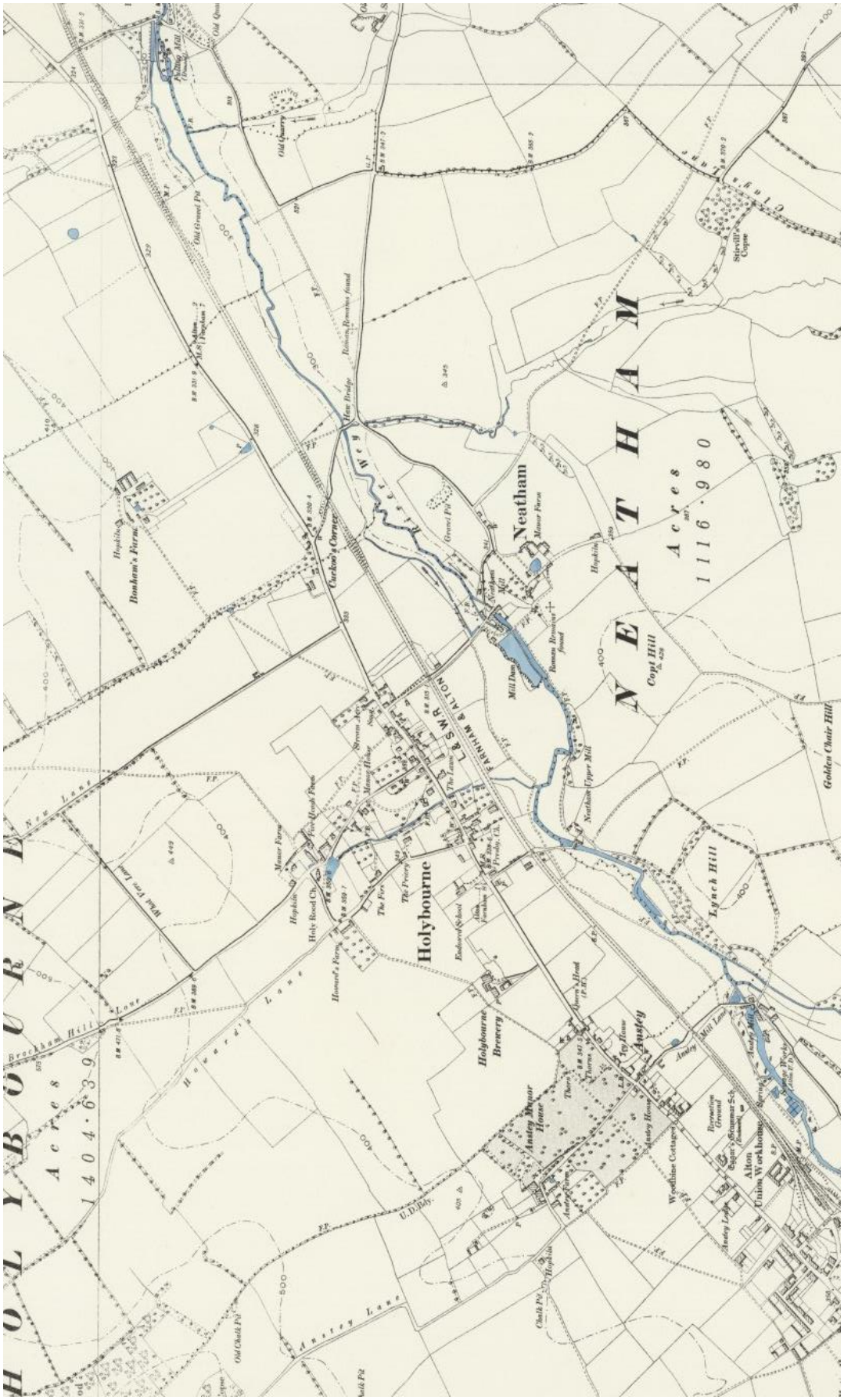


Figure 8.2 Roman Neatham location on Ordnance Survey 6" map England and Wales 1842-1952 (National Library of Scotland Creative Commons Attribution -NonCommerical -ShareAlike (CC-BY-NC-SA) licence.)

8.2 Site and situation

NGR: Tile + Eastings + Northings	SU 7380 4120 (centre)
Ordnance Datum	100 m
Settlement area (greatest extent known in the Roman period)	7 ha[111] but possibly larger[112]

Roman Neatham was founded on a band of sand and gravel river terrace deposits running south-west to north-east and roughly parallel to the west bank of the River Wey[113]. The local landscape is characterised by high ground comprising various chalk formations: New Pit, Holywell and Lewis. Approximately mirrored to the east of the river is a broad Upper Greensand ridge: the western boundary of the Weald Valley. Beyond these features extensive superficial deposits of clay, silt and sand are to be found; to the north-east of Neatham these deposits overlay an area of Gault Formation mudstone which defines the area of the Alice Holt pottery kilns.

Agriculture here during the Roman period had the advantage of high plateau areas and the Upper Greensand escarpment for arable farming (Lyne 2012, 34). The lower wetter grass meadows[114] would have been suitable for grazing livestock and raising arable crops. Areas of woodland, particularly those around Alice Holt (present day Alice Holt Forest), were predominantly oak and may have supplied fuel for the potters' kilns.

Millett and Graham have argued that Roman Neatham developed at the meeting point of the sphere of influence of the four major centres in south-east Britain: *Londinium* (London), *Calleva Atrebatum* (Silchester), *Noviomagus Regnensium* (Chichester) and *Venta Bulgarum* (Winchester)[115]; therefore, theoretically, at an attractive location for a market centre (1986, 159). On this premise, Millett and Graham applied polygon analysis centred on the major centres of Winchester, Silchester and Chichester in order to determine respective spheres of influence. Whilst acknowledging the limitations of the approach, the authors were able to show (Fig. 103, 155) that this framework would have put Roman Neatham close to where the boundaries of the three polygons met: essentially where one might reasonably expect a minor urban trading settlement to develop. A further polygon

[111] Calculation based on enclosed area 2.5 ha plus town of 4.5 ha (Burnham and Wacher 1990, 266).
[112] A larger, recent estimate is between 8 and 14 ha (Holt 2015, 4)
[113] BGS Geology of Britain Viewer: Superficial Deposits and Bedrock http://mapapps.bgs.ac.uk/geologyofbritain/home.html [Accessed 11/7/2016]
[114] Although the River Wey rarely floods today this may to some extent be due to the extensive use of boreholes along the valley and may belie the propensity of the river to flood naturally during the Roman period, thereby maintaining fertile meadows.
[115] Also possibly at the putative borders of the *Regni* tribe.

was then constructed around Neatham, based on the calculated sizes of nearby rural sites, to claim a service area of around 500 km^2 (Fig. 104, 156). This polygon included 14 villa sites (not specified) and 22 'probable villa' sites[116] (not identified) together with nine kiln sites to the south of Farnham, but no farmsteads (Millett and Graham 1986, 155). Apart from lack of clarity over the rural sites included, this claim relies on the conjecture that tribal lands *had* respected boundaries, such as the Thames River[117] and that there was organised trading of goods between the tribes. In fact the existence of cohesive tribal identities is very uncertain (Moore 2011) and is likely to have been a construct of Roman authors (particularly Strabo in *Geographica*, Book IV, Julius Caesar in *Gallic Wars* and Tacitus in *Germania*) and adopted by later scholars.

8.3 River communications and water use

The Roman town was sited (Figure 8.3) close to a fording point of the Roman road from Chichester to Silchester where it crossed the north branch of the River Wey (Burnham 1986, 190). This tributary joins its southern namesake at Tilford, before continuing north to a confluence with the Thames River near Weybridge (c.140 km)[118]. Approximately 2km to the east of Neatham, the River Slea connected the southernmost Alice Holt potteries to the southern branch of the River Wey. Lyne also mentions the Loddon or Ludden stream which runs close to the potteries providing fresh water and lush meadows for grazing livestock (2012, 28). Due to the orientation of the river system locally, if it was used for transporting pottery vessels or other goods to market in *Londinium*, Roman Neatham, to the west, is in a poor location to play a key marketing role.

Of a number of streams feeding into the Wey River, that at Holybourne close to the Roman settlement, may have been revered as a sacred spring ('holy' + 'bourne' meaning 'stream'), although there is no specific Roman evidence. A sacred shrine here may have attracted local and passing patronage.

[116] Whilst the authors suppose the large number of villas an indication of the extent of agricultural activity around Neatham (Millett & Graham 1986, 155), they recognise that the dominant influence on the choice of site was geology; the slopes of the Upper Greensand ridge and chalk high ground, rather than consumer demand.
[117] The belief that a major river necessarily acted as a tribal boundary should not be accepted without caution. It has been noted that the Rhine in Germany was not used in this way by local inhabitants: the river did not divide one tribe from another (Goodman 1997, 220).
[118] From this point it is another 40km downstream to *Londinium.*

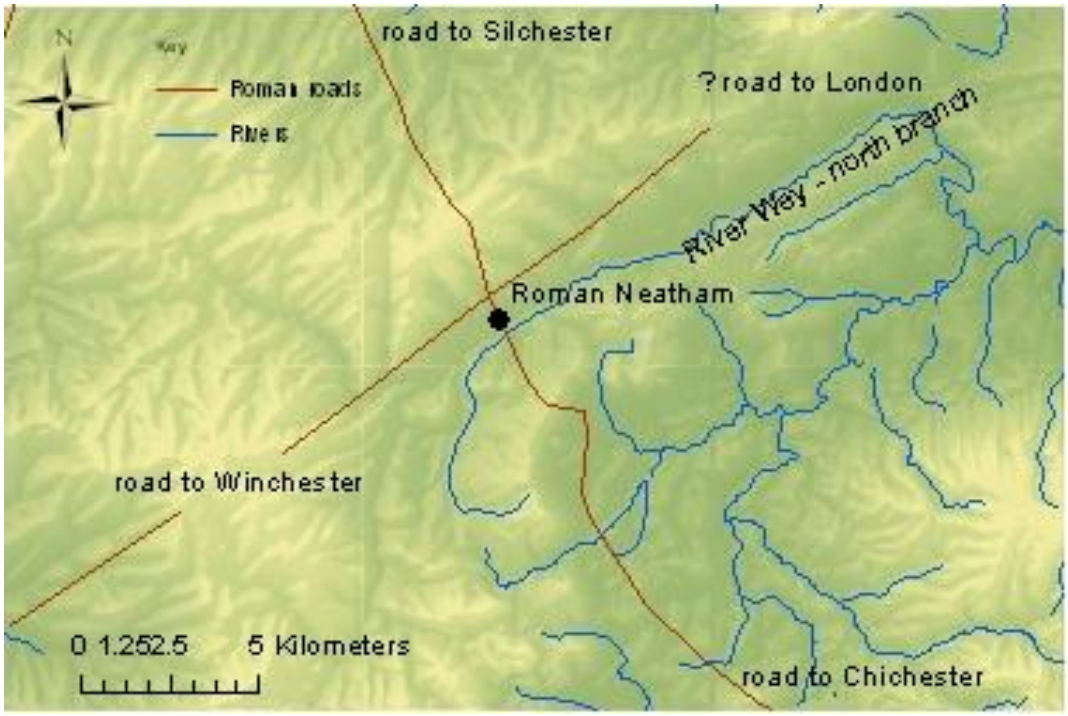


Figure 8.3 Situation of Roman Neatham indicating major roads and local river tributary system .(Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008)).

8.4 Archaeological interventions

The majority of the excavations at Neatham were conducted in the 1970s and 1980s (Table 8.1) in advance of the construction of the A31 Alton by-pass (Millett 1975; Millett and Graham 1986) and were conducted along the valley of the Wey River. Only the *mansio* site has recently received attention from archaeologist D. Graham (2009). Limited opportunities have arisen in the residential area of Holybourne for archaeological evaluations, for example at the Cricket Club (2006) and a few developer-led interventions have been carried out, for example at the Holybourne Depot site (Manning 2009). The area around Cuckoo's Corner comprises farm land and has not been extensively excavated.

The piecemeal nature of the archaeological investigations in this area has contributed to the perception that Roman Neatham has two distinct sections: the defended enclosure containing the *mansio* and the extra-mural development of minor roads and buildings; both sections bisected by the Chichester-Silchester road. The modern towns of Alton and Basingstoke to the south and west were subject to a number of individual excavations during the last decades of the 20th century, in response to urban construction work. Both towns appear to have had earlier Roman settlements (Millett 1986; Oliver and Applin 1979; Vaughan 1999).

Much of the focus of Roman archaeological attention in this area of East Hampshire has been around Alice Holt and Farnham, where a number of Roman period (early 1st century to early 5th century) pottery kilns have been known for some time (Lowther 1939; Millett 1979; Lyne and Jefferies 1979). Despite the fact that a large number of kilns or waste heaps have been documented, few excavations have been undertaken (Lyne and Jeffries 1979). This deficiency has been addressed by M. Lyne (2012) through extensive field walking and investigation. As a result, Lyne has added to the number of kiln sites known around Binsted, Kingley and Alice Holt.

Possible villa sites in the vicinity of Roman Neatham have also received archaeological attention since the late 20th century. The most thoroughly investigated to-date is that at Binsted Wyke (Cole 1988; Lyne 2012). Other villas are claimed for South Hay (Bray 1998), Wheatley (Millett 1977), Crondall (Millett 1977) and Glade Farm (Collingwood and Taylor 1928), but data for these sites is scant. A summary of the range and quality of the data available from all the source interventions is presented in Table 8.1.

Table 8.1 Summary of Archaeological Interventions in Roman Neatham and sites within approximately 10 km[119]

Site	Location SU	Intervention Year	Excavator	Area	Aim/purpose	Reporting quality	Information value
Alice Holt, AH5	unspecified	1974	Lyne, M.	2 trenches: 5m x 5m, 5m x 8m	Evaluation	Detailed	Good
Alice Holt, AH 52	unspecified	1977-79	Lyne, M.	2 trenches: 3m x 7m, 2m x 1m	Evaluation	Detailed	Good
Alice Holt, AH 46	unspecified	2003	CA	Not specified	Test Pitting	Detailed	Moderate
Alice Holt, AH 28 Goose Green	80913991	2011	Lyne, M.	Narrow trench	Watching brief (pipeline)	Detailed	Moderate
Alton, Kemp's Yard	71603900	1986	University of Durham	25m x 15m	Evaluation	Detailed	Good
Basingstoke, Brighton Hill South (Hatch Warren)	61004920	1995	WA	70m x 250m, 200m x 200m	Evaluation	Detailed	Good
Basingstoke, Danebury Road	60704850	1995	WA	200m x 100m	Evaluation	Limited detail	Good
Basingstoke, Kennel Farm	60404790	1998	NA	0.73 ha	Evaluation	Detailed. Expert contribution	Good
Basingstoke, Ruckstalls Hill	65005140	1972-5	BAS	90m x 60m, 100m x 80m	Evaluation	Detailed	Good
Basingstoke, Viables 2 (Jays Close)	63205005	1999	HAT	2 areas: 140m sq, 200m sq	Evaluation	Detailed.	Good
Binsted, Wheatley's	78903990	1800s	Long, H		Excavation	Summary	Poor
Binsted Wyke Villa	75883938	1975-6	FDMS			Reassessed 19th century excavation	Poor
Binsted, Holt Pound	80604350	1988	Lyne, M.	2 trenches: 3m x 3m, 4.5m x 1m	Evaluation/metal detection	Limited detail	Moderate
Binsted, R35	76904143	1981/95	Lyne, M.	?	Evaluation (fieldwalking/air photographs)	Note	Poor

[119] Empty cells denote uncertain (?) or unavailable data. For 'Excavator' abbreviations and an explanation of 'Information value' see Appendix A.

Binsted, R41 villa (?above)	78584132	2081/95	Lyne, M.	?	Evaluation (fieldwalking/air photographs)	Note	Poor
Dockenfield	82704060	2015	SyAS/BAS	unclear	Evaluation	Summary	Poor
Dummer	59404670	1992	WA	unknown	Watching brief	Limited detail	Poor
Frith End/Bucks Horn Oak (A325)	8080 - 80693990 to 4169	2003	CA	5 trenches 1m x 1m	Evaluation	Detailed. Expert contribution	Good
Holybourne Down	73404260	1981	Alton Archaeological Committee	unclear	Evaluation	Limited detail	Poor
Holybourne, Cricket club	73944128	2006	Graham, D.	unknown	Evaluation/watching brief/geophysical survey	Summary note	Poor
Holybourne, Depot site	47391410	2008	WA	1 ha	Evaluation	Detailed	Good
Isington	77984220	1981/95	Lyne, M.		Evaluation (fieldwalking/air photographs)	Note	Poor
Kingsley	78353797	1981/95	Lyne, M.		Evaluation (fieldwalking/air photographs)	Note	Poor
Kingsley, (Grooms Farm) Ranks Hill	?find	1981/95	Lyne, M.		Evaluation (fieldwalking/air photographs)	Limited detail	Poor
Kingsley, Country Market	80203860	1980	Schadla-Hall, T.	‘small scale’	Evaluation	Detailed	Good
Kingsley, Country Market	80203860	2011	WSA	60m x 70m	Evaluation	Detailed. Expert contribution	Good
Kingsley, Frith End Quarry	48121388	2010	WA	1.3 ha	Evaluation	Detailed	Good
Kinsley: R31, R32, R33	76803890	1981/95	Lyne, M.		Evaluation (fieldwalking/air photographs)	Detailed summary	Moderate
Neatham, 3-4 Manor Cottages	74234077	1986	FDMS		Excavation	HE 651706	Poor

Neatham, Area A (crossroads)	73904110	1976	FDMS	3 trenches = c. 1000m sq. + 4 small trial trenches	Excavation	Detailed report	Moderate
Neatham, Area B (S of Area A)	73904110	1974	Millett	4 trenches totalling c.1500 m sq.	Excavation	Detailed report	Moderate
Neatham, Area C (N of W-L road)	73904120	1972-3	FDMS	6 trenches = c. 4500m sq.	Excavation	Detailed report	Moderate
Neatham, Area D (up the S-C road)	73904135	1971	FDMS	4 trenches = c. 200 m sq.	Excavation	Detailed report	Moderate
Neatham, Area E (N of By-Pass)	74004100	1970	FDMS	3 trenches 1m wide	Excavation	Detailed report	Moderate
Neatham, Area F (By-pass/river)	74004090	1969-1970	FDMS	?	Rescue excavation	Detailed report	Moderate
Neatham, Cuckoo's Corner	74004120	?		unknown	Investigation	MN 244074 notes	Poor
Neatham, Mansio	73004100	2009	Graham, D.		Magnetometer survey	Note only	Poor
Odiham, Cholseley	74325105	2010	TVAS	0.40 ha	Evaluation	Detailed. Expert contribution	Good
South Hay, Reynolds Hanger	77853935	1981/95	Lyne, M.	?	Evaluation (fieldwalking/air photographs)	Notes	Poor
South Hay, Walters Mead	77903910	1981/95	Lyne, M.	?	Evaluation (fieldwalking/air photographs)	Notes	Poor

8.5 Literature review

The information and data for this thesis have been collected from a small number of available publications, journal articles and grey literature produced by local archaeological societies (such as the Hampshire Field Club and Archaeological Society) and professional organisations (including Thames Valley Archaeological Services). Summary records of individual sites have been accessed at the Hampshire HER site.

The most prominent publication to date on Roman Neatham is that by Millett and Graham (1986) in which the authors combined the findings of a series of excavations which took place in the town between 1969 and 1979, ahead of the construction of the A31 Alton Bypass. The bulk of the book is devoted to describing the features and finds, with maps and diagrams used to contextualise individual excavations. The discussion in Chapter 8 on the economic basis of the settlement (Millett and Graham 1986, 154-8) takes a measured view of the evidence, but clearly favours a market centre role for Roman Neatham.

Roman Neatham was included in Esmonde Cleary's study of the extra-mural occupation of town sites (1987, 126) and in Burnham and Wacher's book (1990) under the section entitled 'Minor Defended settlements'. Although the existence of a defensive enclosure associated with the Neatham settlement merits these respective entries, the defences do not actually surround the nucleus of the settlement but are located to the north. Only a possibly a *mansio,* and one or two as yet unidentified structures, have been recorded within this enclosure. The section in Burnham and Wacher's book (*ibid*) essentially summarises these findings set out in Millett and Graham's publication (1986).

Outside the town a number of rural Roman sites were known as early as the 19th century to the east of Roman Neatham. Villa sites at Wyck, Barley Pound Farm, and Crondall, (plus a nearby earthwork enclosure) were particularly noted (Napper 1888, 351-2). Napper's observations were driven by his belief that two of the routes in the Antonine Itinerary (Iter XV and Iter XII) might be supposed to meet in this area and therefore Roman settlement remains were to be expected. The area was largely overlooked in the 20th century and according to Lyne, remained much of 'an archaeological 'black hole' until the 1980s' (*pers. comm*.). Lyne's use of aerial photographs and extensive field walking has identified

and evaluated further Roman sites in the area including South Hay, Binsted[120], Kingsley, Isington and Wheatley (2012).

Lyne's earlier work with R. S. Jefferies on the Alice Holt and Farnham kiln sites and the pottery produced there is recorded in a CBA report (1979). Apart from discussing the manufacturing processes, and cataloguing the fabric used and the pottery forms produced, the authors were able to include information on the distribution of these vessels derived from reports of finds from across southern Britain (1979, 52-61). This picture has since been further refined to include recent finds and the distribution range extended into the Midlands (Tyers 1996[121]).

Lyne's most recent publication focusses on the specific Alice Holt Roman pottery manufacturing sub-areas of Binsted, Kingsley and the Alice Holt forest to the north-east of Neatham (2012). Material includes what is generally known about rural occupation and settlement distribution in the area (derived from the commercial excavations of the 1970s, 1980s and post-2000) and newly discovered kiln sites (2012, 37-38). Detailed descriptions are included of the small rural settlements in this area with notes on finds. The Roman Rural Settlement Project (on-line) includes 14 sites peripheral to Roman Neatham[122] and within 10 km radius.

8.6 Claims for market centre status

> With the development of the pottery industry [Alice Holt/Farnham] in the later part of the period it [Neatham] grew into a marketing centre of some significance…
>
> (Millett 1975, 216)

> The market town which is implied by the remains might well have been a thriving place despite the non-survival of much material evidence
>
> S. S. Frere (Millett and Graham 1986, Foreword).

The above quotations illustrate not only the belief in Roman Neatham as a market centre, but highlight two strong influences on understanding the economic nature of Roman Neatham. The first is the association with the nearby pottery production area of Alice Holt/Farnham, evidenced by plentiful finds of this pottery amongst the Roman remains of

[120] Binsted is also spelled 'Binstead' in some texts, but is understood by the author to be the same place.
[121] Available from http://potsherd.net/atlas/Ware/AHGW
[122] As with other small towns in this study, this total is slightly different to that of this present study, a discrepancy which is likely accounted for by differences in the maps used.

the town. The evidence, however, is testament only to the use of locally available pottery and not necessarily to the townspeople being involved in the industry or the town acting as a redistribution centre. A close review of the pottery evidence in this respect is included in Chapter 15 of this thesis. The second, demonstrates the role of interpretation. Frere's 'remains' (presumably features such as the roads and building foundations) are made sense of by the idea of a 'market town'. Frere assumes that supporting material evidence (presumably other than pottery) simply no-longer exists. The implication is challenged through a review of the remains and evaluation of argricultural and domestic finds in Section 3.

8.6.1 Road communications

Roman Neatham apparently developed at a crossroads (Millett 1975, Fig. 2, 213), but whilst the existence of the Silchester-Chichester road, constructed in the 1st century AD probably soon after the Conquest (Millett 1975, 213), is well-attested, much of the Winchester-London road is not (Figure 8.3, Table 8.2). The Roman road network in this region is not well understood (Young *et al*. 2008, 272) and as an indicator of a communications network with Neatham at the centre, should be viewed with caution.

Table 8.2 Roman Neatham – road network

Road	**Direction from town**	**Destination**	**Distance (km)**	**Margary No.**	**Comment**
N/A	N	Silchester (*Calleva Atrebatum*)	28	155	This road is firmly established.
N/A	S	Chichester (*Noviomagus Reginorum*)	58	155	The probably posting station at Iping is 17 km south of Neatham.
N/A	SSW	Winchester (*Venta Belgarum*)	40	N/A	This road is poorly known (Calow 2009). Roman settlement is also known at Alton, 2 km along this route.
N/A	NNE	? *Londinium* (via Southwark)	100	N/A	This road is poorly known[123]. Beyond Farnham the route of this road, if it did exist, is still debated[124].

[123] Partially identified by Whaley (2011).
[124]The most likely route beyond Farnham, is eastward, parallel but to the north of the Hogs Back ridge, thence across country to join Stane Street near Ewell and from there on to Southwark. This would take in the religious sites at Wanborough and Frilford (D. Calow and D. Bird, *pers. comm*.).

Apart from major roads, a possible spur road has been identified in the town heading in the direction of the Alice Holt area of pottery kilns, around 6 km to the east-north-east (Millett 1975, 213; Burnham and Wacher 1990, 265). However, at present there is no evidence that the road fully connected the two sites, so again, this statement should be viewed with caution.

8.6.2 *Mansio* site

Roman Neatham has been thought typical of a small town market centre which originated as a roadside settlement in association with a *mansio* (Johnston 1981; Young *et al.* 2008, 94). The enclosure boundary ditch described by Young (after Johnston) has not been excavated in any detail, although excavations by the Farnham Museum Society revealed two pre-3rd century AD military style ditches of a rectangular enclosure covering about 2.6 ha, bisected by the Chichester-Silchester Roman road. The remains of the 3rd century building in the NW corner of the enclosure (at SU 73854136) has been variously interpreted not only as a *mansio* or posting station, but also as a fortlet. A geophysical survey of the enclosure conducted by D. Graham (2006) provided further evidence in support of a *mansio*. However, features interpreted to be internal streets and buildings were not confirmed by a slightly later magnetometer survey (Graham 2009). Almost all the urban structures have been found located outside the putative defended area, although covering an area probably less than the 20 ha quoted by Johnston (1981). The claim that a market centre function grew from the presence of the *mansio* (if it is such) is problematic in light of evidence that the latter was actually built in the 3rd century AD some 200 years after the town began. Whatever the nature and purpose of the enclosure, it was added during the life of the town and was not the reason for it, although official use might have latterly stimulated demand for goods and services in the Late Roman period.

8.6.3 Religious focus

As already mentioned, Roman Neatham may have included the site of a water shrine and thus drawn visitors. Powell found the pottery assemblage from the Depot site, to the south-west of the town, to include a significant number of sherds with graffiti (2008, 64). At a ratio of 1: 204 (graffiti: plain sherds), this Powell argues is high even compared to finds at the religious centre at Springhead (1:1578). The graffiti[125] are of a style more common to sites associated with temples or shrines, such as Springhead or Heybridge in Essex, than sites in small towns (Biddulph 2015). However, the pottery sherds may not be

[125] The religious function of these artefacts is not understood.

easily linked to the mooted sacred spring at Holybourne as the Depot site investigated by Powell is 500m to the south-east of the location of this spring. The graffiti marked pottery sherds may be unconnected.

8.6.4 Brewing site

The local supply of spring water combined with evidence of malted grain found in a ditch, has led to conjecture that Roman Neatham had a brewery at the Depot site (Holybourne), probably between the late 3rd and early 4th centuries AD (Powell 2008, 72). Religious sites are sometimes known to have had associated breweries, Springhead for example (Andrews *et al.* 2011), so this might point to a local religious focus. The fact that the grain was clean (2008, 18) and no malting ovens or steeping tanks have been found, suggests that malting did not take place on the Depot site, but that the grain was brought in ready prepared. Nevertheless, the evidence for Roman period brewing remains very weak and the interpretation likely fuelled by the presence of a more modern brewing industry here. The Ordnance Survey 6" map (1842-1952) shows that this area has long been dominated by brewing: Holybourne Brewery, hop fields and hop kilns abounded here after hops were introduced into this part of Hampshire in the 19th century[126].

8.6.5 Metal working

Burnham and Wacher have claimed that evidence for 'specialized activities' in Roman Neatham (principally metal working) demonstrate that the 'site provided services to a wider hinterland' (1990, 269). The basis for this appears to be small amounts of iron slag recorded across the settlement, including in a ditch draining into the Silchester-Chichester road. Here iron slag was found among the debris under fill dating from the end of the 2nd century AD (Millett and Graham 1986). Two structures (in Area F) again by the side of the Roman Silchester-Chichester road, provided evidence of copper and bronze working (*ibid*). Millett summarises this evidence as 'a fair amount of industry on a minor scale' (1975, 216) and is arguably on a scale sufficient only to meet the demands of a small community. This metal working is deemed to be 'subsidiary to the main aspects of the economy', which are held to revolve around the nearby pottery manufacturing industry (Millett and Graham 1986). The claim that Neatham was a central service provider is arguably undermined by the presence of iron slag recorded (1st-3rd centuries AD) at Kingsley and Binsted (Lyne 2012), suggesting that in fact this activity was widespread.

[126] http://www.hampshirefare.co.uk/attachments/articles/a7472_27_HampshireFoodheritagebooklet.pdf

8.6.6 Commercial activity

The little evidence which might point directly to market activity comprises two pieces of a steelyard which Burnham and Wacher consider must indicate 'a commercial role' for the town (1990, 269; Brickstock 2011, 43). Styli, also perhaps used in a market context, have been found widely distributed across the town (Millett and Graham 1986) mainly dating to 3rd-4th centuries AD. Although implying a literate population, these finds alone do not attest to a market centre function.

8.6.7 Pottery distribution

Millett has argued that the Alice Holt/Farnham pottery manufacturing industry would have 'provided a mainstay to the economy' of Roman Neatham (1975, fig. 4, 216). With a minor road built to connect the town to the area of the kilns, the town would, according to Millett, have played a major role in marketing the pottery beyond the immediate area (1975, 216; Burnham and Wacher 1990, 269). However, whilst this argument might be supported by the large amounts of this local pottery found in the town and the apparent parallel growth of the town and the pottery industry in the 3rd and 4th centuries AD, there are valid counter considerations. The prevalence of Alice Holt pottery recorded at sites in the town (Millett and Graham 1986; Powell 2014) may simply accord with local availability for domestic use. There is no evidence to date for pottery storage in the town. Impractically, new pottery would have had to be carted westward, away from *Londinium*, if the town acted as a market centre for these goods to this destination, although this might facilitate distribution in the direction of Silchester. These points are further considered in the review of pottery data in Chapter 15.

8.7 Historical perspective and summary

According to Lyne, the suffix 'ham' in the name Neatham embodies a later Anglo-Saxon acknowledgement of a Roman town with a cattle market function (2012, 39). This relies to some extent on a tenuously link with a possible settlement at nearby Binsted and a putative livestock enclosure (2012, 17). The belief that Neatham[127] has always been a market town is common to much of the literature. In 1908, D. H.Moutray wrote that 'Neatham, on the further bank of the Wey, had a market before the Conqueror came' ("Highways and Byways"). Accordingly, Millett (1975, 215) has claimed that the name 'Neatham' means

[127] It should be recalled that present day 'Neatham' is actually a hamlet to the south of the River Wey and opposite the site of the Roman settlement. It is not always clear in some sources exactly which settlement is meant.

‘cattle market’ and alludes to a Domesday Book (1086) reference to a cattle market. In addition to livestock, as many as 9 mills were also recorded, presumably for the processing of grain, activity which seems to have been common along this stretch of the River Wey for many centuries.

It would seem that justification for Roman Neatham as an agricultural centre relies to some extent on a retrospective association with later historical periods, to the extent of the local modern brewing tradition here influencing the identification of a Roman ‘brewery’. The potential influence of a *mansio* in the town has not yet been reconciled with an official role. As a pottery distribution centre for the Alice Holt/Farnham industry, attempts to date in determining an associated commercial role for the town are undermined by both the town’s location and lack of evidence for the transportation of goods.

Roman Staines-upon-Thames

9.1 Introduction

The fifth and final chapter in this section focusses on the small town of Roman Staines-upon-Thames. As before, the origin and geographical context of the settlement are explained and the archaeological evidence reviewed. The claims for market centre status are appraised ahead of the data reviews for agricultural production and the distribution of quernstones and pottery in Section 3.

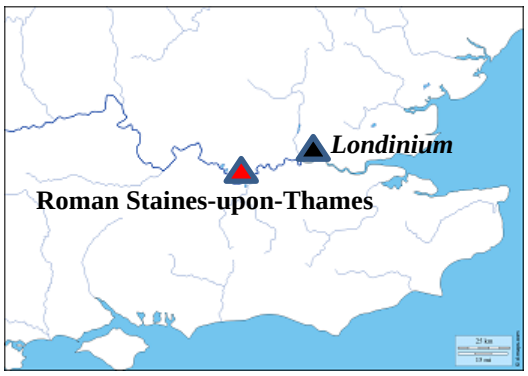


Figure 9.1 Location of Roman Staines-upon-Thames in relation to London (d-maps.com)

Roman Staines-upon-Thames[128], to the west of London (Figure 9.1) is traditionally identified as *Pontibus*[129] ('site of the bridges') as recorded in the Antonine Itinerary (Rivet and Jackson 1970, 49), lying on the main route between London and Silchester (*Iter VII*). The nature and details of the Antonine Itinerary have long been debated (Rivet and Jackson 1970, 36); inclusion in this source does not confirm official status for the town. Neither does the Itinerary provide a date(s) for the existence of Roman Staines-upon-Thames[130]. Original name aside, the location was undoubtedly at the point which the London-Silchester road crossed the Thames River, possibly via more than one bridge or ferry, although to date no remains of either have been found.

There is very little evidence for prehistoric settlement of this area of the Thames Valley, in contrast to the generally densely populated Thames Valley gravel terraces (Crouch and Shanks 1984, 125; Poulton 2003b, 12). The reason for this has not been established. It is possible that during the LIA this stretch of the Thames River was perceived as a boundary

[128] In older texts the town is referred to as 'Staines'. It was renamed 'Staines-upon-Thames in 2012.
[129] The name *Ad Pontes* 'to the bridges' is also found in the literature. Bird has suggested that the Latin name may originally have had the suffix '*brivae'* (as for *Durobrivae*), thus indicating the positioning of the settlement at a *new* river crossing (Bird 2004, 25).
[130] The date of the *Itinerary* is uncertain, but is most likely to have been a composite of late 2nd and 3rd centuries AD material (Rivet and Jackson 1970).

to the tribal lands of the *Atrebates* and the *Cantiaci* to the south, and the *Catuvellauni* and the *Trinovantes* to the north. This would locate the settlement at Staines-upon-Thames in a natural position for trade and exchange between the tribes, but as for previous small towns this reasoning is speculative. Tribal boundaries and the maps depicting them (*q.v.* Jones 2010, 39) are reasoned from the combination of coin find distribution patterns, back-projection from the suggested boundaries of the Roman era *civitates* and conjecture based on Tacitus' *Agricola*, written at the end of the 1st century AD (*q.v.* Moore 2011). This is not a secure position from which to argue for a market centre role for the Roman town.

The geographical location of Staines-upon-Thames (Figure 9.2) and position on the road network has led to the surmise that the town's origin was as a military supply base set up shortly after the Roman Conquest (Crouch and Shanks 1984, 2)[131]. Roman Staines-upon-Thames flourished from the late 1st century into the 2nd century AD (most of the Roman archaeology found along the High Street island and the contemporary river front dates from the 2nd century AD), before apparently declining in the 3rd century AD. The town continued into, and beyond, the Late Roman period (Poulton 2003b, 7), perhaps a testament to the continued importance of the site as a river crossing.

[131] A brief assessment of the possible military origin of Roman Staines-upon-Thames can be found in Jones (2010, 14).

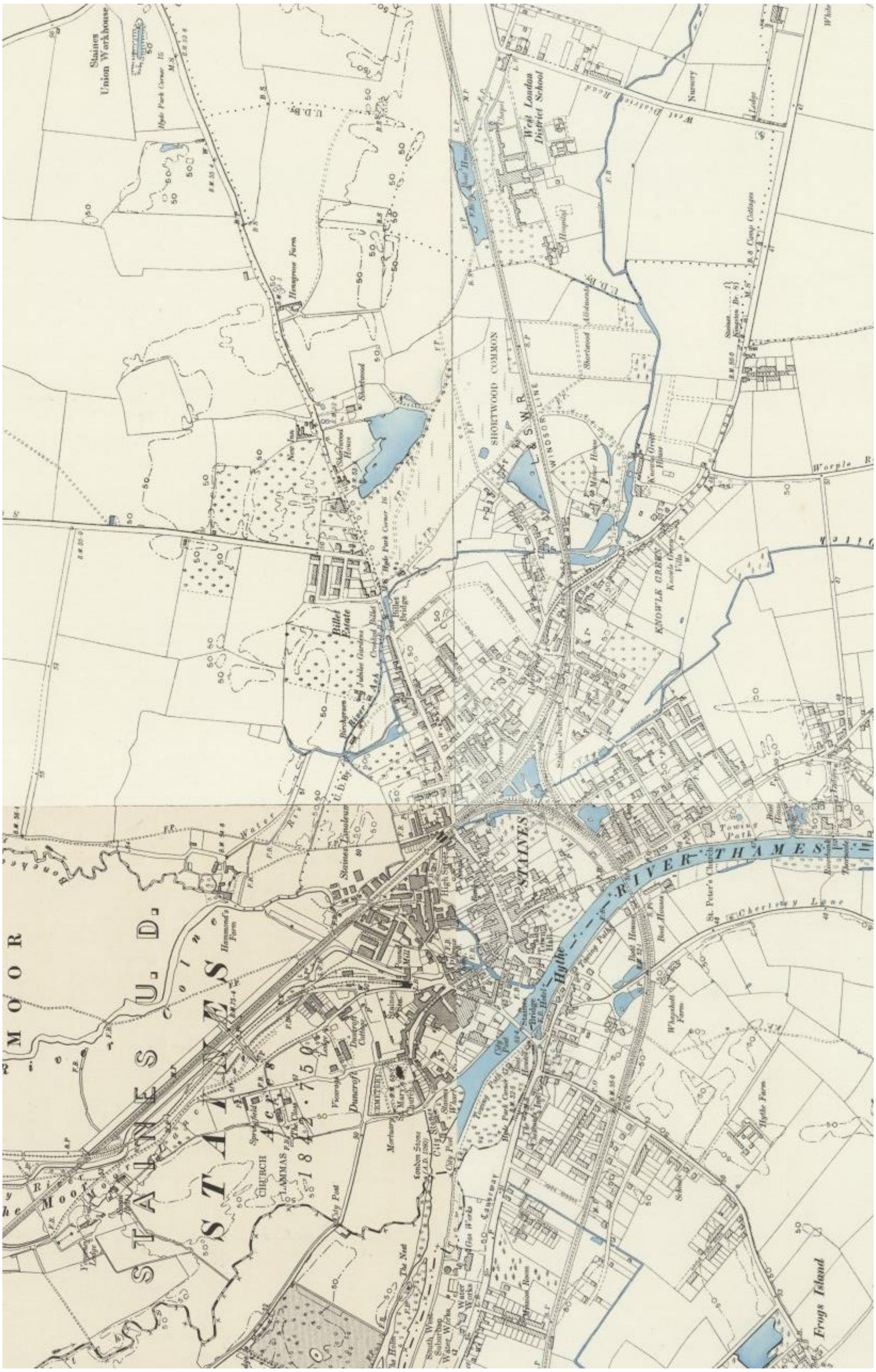


Figure 9.2 Roman Staines-upon-Thames location on Ordnance Survey 6" map England and Wales 1842-1952 (National Library of Scotland Creative Commons Attribution -NonCommerical -ShareAlike (CC-BY-NC-SA) licence.)

9.2 Site and situation

NGR: Tile + Eastings + Northings	TQ 04147145 (centre)
Ordnance Datum	4 m
Settlement area (greatest extent known in the Roman period)	1 ha[132]

Roman Staines-upon-Thames stands on the north bank of the River Thames[133] close to the confluence of two tributaries: the Wraysbury River and the Colne River. The underlying bedrock comprises London Clay Formation (made up of clay, silt and sand)[134], whilst the surface comprises a large area of sand and gravel river terrace with a broad band of alluvium associated with the path of the Thames River. The low-lying wet land of the valley bottom is punctuated by five natural gravel islands in the vicinity of the town (Crouch 1976). The nucleus of the town surmounts one of the larger gravel islands (known as High Street or Town Island), between the Thames River and the Colne River (Jones 2010, 6-9). The town spread to utilise the additional high ground afforded by neighbouring Binbury Island.

The gravel islands and the surrounding alluvial plain are the result of ancient periods of flooding; these natural events continued throughout the Roman period and are apparent in the archaeological record, for example in the form of river silt deposits. Those which occurred during the early 2nd and the early 3rd centuries AD were devastating to the town and may have removed substantial archaeology (Jones 2010). Not wholly destructive, flooding provided the settlement with a source of clay (useful building material) and replenished soil for farming. Substantial peripheral areas of grassland and water meadows, particularly to the south of the town, would have served well for grazing livestock.

Threat of flooding physically constrained the development of the town. At least three major changes to the Roman shore line of the River Thames have been noted in excavation reports, such as at the Johnson and Clarks site to the west of the island (Jones 2010). The archaeological record indicates that buildings were periodically demolished and rebuilt, whilst the back lands reaching towards the edge of the high ground, were utilised as

[132] It has been stated that the nucleus of the town covered an area approximately 300 -400m by 200m (Burnham & Wacher 1990 , 307; Jones, 2010, 2, Fig. 1.2), which is just under 1 ha.
[133] The direction of river flow here is north-west to south-east in the direction of London/ North Sea.
[134] British Geological Survey on-line map at http://mapapps.bgs.ac.uk/geologyofbritain/home.html [Access 13.03.2018]

middens and general rubbish dumps (*ibid*); very little archaeological investigation has been attempted beyond the known settlement area (Burnham and Wacher 1990, 307).

9.3 Local river system and communications

The River Thames dominates the location of Staines-upon-Thames (Figure 9.3) and is thought to have been tidal as far as the town in the Roman period (Jones 2010). If so, the river could have afforded a cheap option[135] for the transportation of goods, c. 56 km (*ibid* 15), between the town and *Londinium* or Southwark. Supposedly low rates for river haulage has been cited as an important factor in the transport of pottery from the Oxfordshire kilns to customers in *Londinium* and Kent (Fulford and Hodder 1974, 29); such a distribution route might have utilised a river port at Staines-upon-Thames. Nevertheless, despite the port at *Londinium* evidence for river transport is not well-known; this combined with a lack of riverside structural remains undermines any claim that Staines-upon-Thames marketed goods transported via the river system.

Aside from the main river, local tributaries of the Thames were significant in the development of Roman Staines-upon-Thames. The confluence of the Colne River on the northern edge of the town marks the terminus of a broad valley running south from the area of St Albans (*Verulamium*) and from which the town apparently obtained a supply of locally produced pottery. This valley also included a network of smaller tributaries close to Staines-upon-Thames comprising the Wraysbury River and the River Ash, which similarly had the potential for transporting goods, as well as draining and irrigating local farmland.

[135] For calculation of water (river/sea) versus land transport costs in the Roman period, see http://orbis.stanford.edu/ [Accessed 5.11.2018]

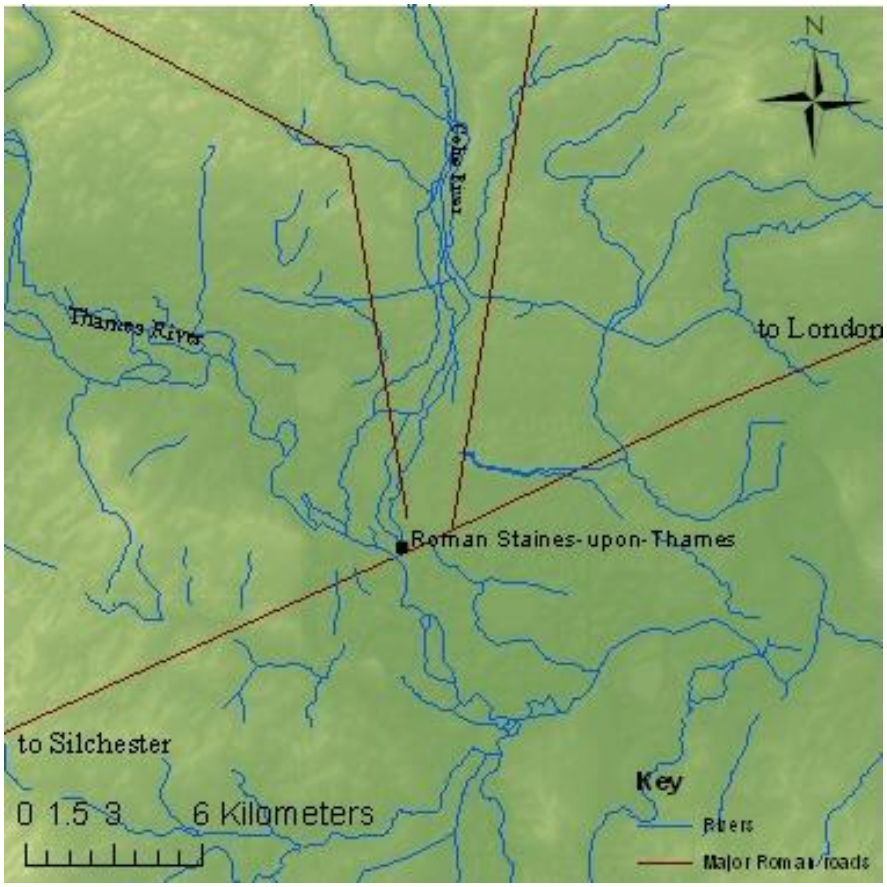


Figure 9.3 Map of Roman Staines-upon-Thames with Roman roads and Thames river system.(Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008)).

9.4 Archaeological interventions

The earliest archaeological interventions (Table 9.1) carried out in Staines-upon-Thames date to the 1960s and provide little detail or secure identification of finds (Jones 2010, 2). The majority of later professional excavations, of which many found Roman evidence, took place during the 1970s and 1980s and were conducted either by Surrey County Archaeological Unit (SCAU) or local archaeological societies: Staines Archaeological Unit, Spelthorne Archaeological Field Group. Generally the investigations were in response to scheduled construction work, particularly along the High Street and the sites, such as Johnson and Clarks, were to the south of the High Street (Crouch 1976, 1978; Crouch and Shanks 1984; Jones 1987, 1989). The large area occupied by the Central Trading Estate to the north of the town, was excavated in sections by Wessex Archaeology in the late 1990s and produced additional material relating to the use of the back lands behind the road fronted buildings. The most recent intervention has been the excavation of the Majestic House site, in 2014, to the eastern edge of Staines-upon-Thames (Ellis 2014; 2016).

To the east of the small town, the development of a large area to accommodate Heathrow Airport has seen the archaeological investigation of individual rural sites such as Caesar's Camp and Bedfont, adjacent to Terminal 4 (Farrant 1971; Grimes *et al*.1993), and most recently the Perry Oaks site, now Terminal 5 (Lewis and Smith 2006; Framework Archaeology 2014). These locations were already known to be IA/Roman sites from local knowledge and aerial photographs[136].

The quantity and quality of the data available from all the source interventions in the area has been reviewed for this study and presented in Table 9.1. Interventions around Staines-upon-Thames have often preceded gravel extraction work, such as at Kingsmead Quarry and the reservoir at Mayfield Farm in the past. A significant proportion of the area is now given over to large reservoirs and lakes[137], this must inevitably limit the scope for future local archaeological interventions.

[136] www.britainfromabove.org.uk [Accessed 19.03.2018]
[137] Staines Reservoir, King George VI Reservoir, Wraysbury Reservoir, Queen Mary Reservoir and Bedfont Lakes are the largest.

Table 9.1 Summary of Archaeological Interventions in Roman Staines-upon-Thames and sites within approximately 10 km[138]

Site	Location TQ (+leading 0)	Intervention Year	Excavator	Area	Aim/purpose	Reporting quality	Information value
Agar's Plough	SU 97807820				Excavation		Moderate
Ashford Prison	5407140	2001-2	PCA	400m x 500m (25 trenches)	Evaluation	Detailed report	Good
Datchet, Southlea Farm	SU 99207620	1998-2003	Datchet Village Society	c. 1500 m area – fieldwalking/ magnetometry/excavation	Evaluation	Report	Moderate
East Bedfont (? Mayfield Farm)	807370 leading 0	1972	LMAS	25m x 45m	Evaluation	Article. Limited detail	Moderate
Harlington, Cranford Lane	9527736	1994-5	MoLAS	unspecified	Evaluation	Report. Detailed. Expert contribution	Good
Harlington, Imperial College Sports Ground	8257765	1996	WA	site = 19 ha	Evaluation	Detailed report	Good
Heathrow, Caesar's Camp	8507660	1944	Grimes, W.F.	unclear	Evaluation	Journal article	Moderate
Horton, Berkyn Manor Farm	1707510	1990	WA	15.7 ha	Evaluation	Report. Limited detail	Moderate
Horton, Berkyn Manor Farm	1707510	1995	WA	80m x 60m	Evaluation	Preliminary report	Poor
Horton, Kingsmead Quarry	1707510	2009	WA	10 ha	Evaluation	Published site plans	Good
Horton, Lower	1777517	2003	TVAS	0.15 ha	Evaluation	Report	Good
Mayfield Farm	7707360	1998	FrA	100m x 200m	Evaluation	Detailed report	Good
Perry Oaks, Heathrow T5	5507570	2006	FrA	200m x 300m, 200m x 300m, + small trenches	Evaluation	Detailed report. Expert contribution	Good
Perry Oaks, Heathrow T5	5507570	2011	FrA	as above	Evaluation	Detailed reports. Expert contribution	Good
Slough, Bath Road	SU 49511807	1995	TVAS	0.5 ha (14 trenches)	Evaluation	Detailed.	Good

[138] Empty cells denote uncertain (?) or unavailable data. For 'Excavator' abbreviations and an explanation of 'Information value' see Appendix A.

Staines, 9-11 High Street	3427153	1981	SCAU/SAFG	unclear	Evaluation	Article. Limited detail	Poor
Staines, Central Trading Estate	3457175	1996-2000	WA	9 ha	Evaluation	Reference only	Poor
Staines, County Sports	3437152	1981	SCAU/SAFG	40m sq	Evaluation	Detailed. Expert contribution	Good
Staines, Courage's Brewery (Binbury Island)	3237174	1986	SyAS				
Staines, Elmsleigh Centre	3707160	1975-8	SAU	260m sq	Evaluation	Detailed. Expert contribution	Good
Staines, Friends' Burial Ground	3507150	1975-6	SyAS/LMAS	?	Evaluation	Detailed report	Moderate
Staines, Hengrove Farm	5297180	2003	SCAU	260m x 100m	Assessment	Detailed report. Expert contribution	Good
Staines, Old Police St. + 10-16 London Rd	3997175	2001	SCAU	50m x 25m	Evaluation	Detailed report. Expert contribution	Good
Staines, Johnson and Clarks	3487152	1985-6	SCAU	10m x 30m, 20m x 30m, 35m sq		Detailed. Expert contribution	Good
Staines, Majestic House	3807175	2014	CA	5/10 trenches (< 50m x 1.8m)	Evaluation	Detailed report.	Good
Staines, Percy Harrisons	3617160	1989	SCAU	trenches: 54 m sq + 24m sq	Evaluation	Detailed. Expert contribution	Good
Staines, Prudential	3657170	1989	SCAU	20m x 80m	Evaluation	Detailed. Expert contribution	Good
Staines, Tilly's Lane	3507160	2000	WA	60m x 40m + 40m x 20m	Evaluation	Detailed	Good
Thorpe, Coldharbour quarry	2606890	2005	ASE	4834m sq	Evaluation	Detailed report. Expert contribution	Good
Thorpe Lea Nurseries	1826980	1998	SCAU	3.75ha	Evaluation	Data only	Good
Wraysbury, Waylands Nursery	27440 leading 00	1998	TVAS	5 trenches 20m x 1.8m	Evaluation	Detailed report	Good

9.5 Literature review

A Roman settlement was first recorded by Camden as *Pontes* in his work, *Britannia* (1695); noted again, 30 years later, by Stukeley (1726). The earliest excavation work did not take place until the 20th century. Articles published in the *London Archaeologist* record M. Rendell's excavation work from the 1960s (1970), that of K. Crouch in the following decade (1976), and J. Chapman and S. Smith (1988). Many papers relating to Roman Staines-upon-Thames and nearby rural sites have been included in the *Surrey Archaeological Collections* series. Many of the site reports, however, have remained unpublished, including most of the excavation work carried out by SCAU in the 1990s, although a number of these papers are accessible on-line through the Archaeological Data Service website[139].

Key contributions to current understanding of Roman Staines-upon-Thames have resulted from the broad expertise of archaeologists including P. Jones, R. Poulton, G. Hayman and J. McKinley. Poulton's contribution to the 'Extensive Urban Survey of Surrey: Staines' paper (2003b) draws together much of the material available and includes a list of archaeological interventions. McKinley has contributed an assessment based largely on the findings from the Central Trading Estate excavations (2004) which, although apparently influenced by Burnham and Wacher (1990, 323) does go further to consider the relationship between the urban population and the landscape. Burnham and Wacher viewed Roman Staines-upon-Thames as an undefended settlement with the morphology of a 'fairly typical ribbon development' (1990, 308). The economy of the town in the late 1st and 2nd centuries AD was held to have been 'reasonably healthy' based on the amount of imported goods[140] recovered (1990, 309). As for Roman Braughing, the perceived role and status of the town has traditionally been determined by finds of early imported goods.

Roman Staines-upon-Thames and the surrounding area have also featured in a book covering the archaeology of the gravel terraces in the upper and middle reaches of the Thames Valley (Booth *et al.* 2007); Framework Archaeology's Heathrow Terminal 5 intervention (Lewis *et al.* 2010) and in Bird's *Roman Surrey* (2004). These broader publications provide Roman Staines-upon-Thames with a greater historical and geographical context.

[139]Available at http://archaeologydataservice.ac.uk/ [Accessed 5.11.2018]
[140] The nature of these goods is not specified but probably refers to imported pottery.

Arguably the most significant publication to date has been *Roman and Medieval Staines* (Jones 2010). This work is a response to earlier claims made by Crouch (1976) and Burnham and Wacher (1990) which are considered 'mistaken or lacking in proof (Jones 2010, 1). This work examines six of the main excavations carried out along the modern High Street of Staines-upon-Thames: County Sports (excavated 1981), Elmsleigh Centre (1976-7), Johnson and Clarks (1970-86), Mackay Securities (1989), Percy Harrisons (1989), Prudential (1989). Full detail is included on each site, along with a gazetteer of the archaeological interventions and notes articulating the author's reservations about some of the claims made by the site excavators; the result is a large amount of data suitable for review. Two pages (Jones 2010, 26-7) only are devoted to discussion of propounded trading activities in Roman Staines-upon-Thames.

The Roman Rural Settlement Project (online) includes 17 sites within 10 km of Staines-upon-Thames[141], all of which have been included in this study.

9.6 Claims for market centre status

> This settlement [Staines-upon-Thames] probably also developed as a small marketing centre for the surrounding countryside, and in turn relied on the out-lying farmsteads and villas to supply it with food.
>
> (Crouch 1976,73)

> …the town may have functioned as one of a number of centres for the cattle trade serving London..
>
> (McKinley 2004, 11)

> …[Staines-upon-Thames in the 2nd century AD] became a thriving mercantile centre…
>
> (Ellis 2016, 144)

The above quotations serve to demonstrate that the conviction that Roman Staines-upon-Thames was a successful market centre has been widespread and enduring in the sources. Authors have generally adopted this premise uncritically. Ellis' enthusiastic statement (above), for example, is based on a more circumspect observation by Jones who merely claims that 'the town seems to have thrived through the mid-2nd century' (2010, 29). The evidence base for specific market centre claims is appraised in light of this trend.

Poulton has stated that the development of Staines-upon-Thames during the 2nd century AD (Early Roman period) was derived 'perhaps largely from the services that such a

[141] Small discrepancies between the RRSP map and those used in this study may account for the specific sites included within a 10 km radius of Staines-upon-Thames.

distribution centre could offer' (2003b, 7). The evidence for suggestions that the site was a medical centre, provided hospitality (food/drink) for travellers and produced industrial goods is considered below. The only piece of evidence found directly connected to trading activity is a copper-alloy steelyard which Jones concedes 'may be the only evidence for trading in this part [Elmsleigh Centre] of the Roman town' (2010, 153).

9.6.1 The road network and communications

Only one major road directly connected Roman Staines-upon-Thames to other contemporary settlements (Table 9.2). The eastern approach of this road apparently followed a pre-Roman trackway and as the town developed, the early layout of the buildings respected this line (High Street and London Road). No side roads have been identified nor evidence of roads connecting occupation sites on neighbouring gravel islands. Further east (c. 14 km), the Roman roadside settlement at Brentford developed approximately half way between Staines-upon-Thames and *Londinium* at a ford on the Thames River, this within about twenty years of the Conquest (Cowie *et al.* 2013).
The continuation of the London-Silchester road to the west of Staines-upon-Thames (Table 9.2) is less well-known. The route is believed to have linked Egham (*Bibracte*? of the Antonine Itinerary), Virginia Water and Bagshot, in part following the path of London Road, but there is very little archaeological evidence to substantiate this claim (Rivet and Jackson 1970).

Table 9.2 Roman Staines-upon-Thames - road network

Road	**Direction from town**	**Destination**	**Distance (km)**	**Margary No.**	**Comment**
N/A	E	*Londinium*	30	4a	(McKinley, 2004, 10)
N/A	W	*Calleva Atrebatum* (Silchester)	40	4a	(McKinley, 2004, 10)
N/A	N	*Verulamium* (St Albans)	37	165	Formed a junction with the Silchester-London road c.750m to the east of the town.

Bird has argued for a military bridge constructed in AD 43 (2004, 25), inspired by the find of a Roman cavalry helmet cheek piece; Jones however, dates this item much later to the 2nd century AD (2010, 3). Nevertheless, if the London-Silchester road formed an important connection between the two major centres, then a bridging (or ferry) point at Staines-upon-Thames may have been a focus for trading goods and services. The location of the crossing is unknown but the diversion of the main street north (Church Street) and

south (Bridge Street) (Poulton 2003b, 11) may be suggestive. The Thames is thought to have been particularly wide here during the Roman period – c. 230 m between banks – and difficult to bridge (Poulton, 2003b, 12). Whilst a later medieval bridge is known, no evidence of an earlier Roman construction has been found (Jones 2010, 13).

The only evidence of Roman occupation on the west bank of the Thames has been the single find of a rectangular timber-framed building on the raised ground at Hythe (Jones 2010, 6). It has been suggested that this building could have been a pulley house for the ropes operating a ferry system (Willis *pers. comm.*). If only light traffic used this crossing, a ferry system would have been adequate and responsive to changes due to repeated local flooding and erosion/deposition of the river bank[142]. It is worth noting that a ferry service operated downstream at Roman Southwark (Cowan 2009) and later examples still ran upstream between Datchet and Windsor in the late 1700s, so this solution is not without merit.

Roman Staines-upon-Thames seems to have been connected to the *Verulamium* area. One road ran the length of the Colne Valley (Table 9.2) and at least three roads emanated from *Verulamium* in the direction of the area to the north of Staines-upon-Thames[143]: these roads comprise Margary 163, 163a and 163b. It is not clear whether any or all of these roads connected with the Thames River: the 163b spur road headed towards the Thames in the direction of modern Slough, but peters out in the Colne Valley[144] . The orientation of these roads (if they existed as presented) suggest that the region to the north of Staines-upon-Thames was more closely allied to *Verulamium.* Thus agricultural produce from the rural settlements here, along with pottery produced in the Upper Colne valley, would have been transported to this major centre, rather than Staines-upon-Thames.

9.6.2 Medical centre

The unusual *collyrium* stamp[145] (it differs in shape from the usual square stone ones) found at the Percy Harrisons excavation site, together with spoon probes and a scalpel handle retrieved from various sites in the centre of the town, has led to speculation that Staines-

[142] As already mentioned the town name *Pontibus* seems to refer to bridges but it is perhaps worth noting that the Latin for 'ferry' is the similar word: *ponto.*
[143] Briggs has added a further road (X39) connecting the town northwards across this area to Oxfordshire. The remaining roads are marked on the Roman Rural Settlement Project map and http://keithbriggs.info/images/Roman_roads_NG_all.pdf [Accessed 27.6.2016]
[144] It must be noted that these roads do not appear on the OS Historical map and guide to Roman Britain (5th edition) nor is any trace of them recorded among the landscape features on the OS 6" 1888-1913 map.
[145] A *collyrium* stamp was used to mark different types of eye ointments.

upon-Thames acted as a centre for medical services (Bird 2004, 70; Jones 2010, 27). Bird notes that the stamp was discovered in a 4th century pit, possibly deposited there deliberately (2004, 70). This is in line with Jackson's view (2010, 3) that these items tend to be found in towns and on major routes, a similar stamp was recorded at Sandy among grave goods (Johnston 1975, 228). However, it is a considerable stretch to claim, as Bird does, that this single item 'implies the presence of a healer probably serving quite a wide area' (2004, 72), particularly as Bird also remarks that the *collyrium* has clearly been altered from its original form. The stamp was simply discarded here as rubbish, perhaps after a period of reuse.

The stamp has been cited in conjunction with finds of bronze scoops at the Tilly's Lane site to bolster the idea of a healing centre. The Tilly's Lane site was occupied during the Early Roman period by a high status building and the bronze scoops found here are more likely to have been commensurate with the domestic life style of the occupants. McKinley has attempted to support the idea of a healing centre by reference to the mineralised remains of medicinal plants[146] (2004, 48), although her link is not strong. Contrary to these claims, Baker's study of the occurrence of oculist stamps in Gaul led her to conclude that rather than evidence of widespread medical practices, finds of these objects are to be most commonly identified as items of jewellery and votive offerings (2011, 169; Jones 2010, 386). The latter may better explain the find context of the *collyrium* stamp in Roman Staines-upon-Thames.

9.6.3 Hospitality

The main components of the claim that Roman Staines-upon-Thames provided hospitality to travellers are no more than outlined here as pottery, quernstones and food production form the basis for detailed review later in this study.

Jones has accounted for the large amount of pottery recovered from sites around Roman Staines-upon-Thames[147] as evidence for the supply of food and drink to passing travellers (2010, 26). In this vein one would expect high levels of drinking vessels (cups, beakers, flagons), dishes and amphorae (Willis *pers. comm.).* Although the amount of pottery is quite considerable this must be gauged relative to the size, nature and contexts of the

[146] McKinley discusses plant uses generally rather than specific to Roman Staines-upon-Thames (2004, 48).
[147] No attempt has been made to calculate the size of the urban population at its height in the 2nd century, so pottery finds might serve no more than the domestic needs of the residents.

excavations. A large proportion of this material was actually excavated from a number of rubbish pits – little has been recorded in domestic or supposed shop contexts – which might bear witness to discarded pottery brought to Staines-upon-Thames as landfill to raise and reinforce the easily eroded backlands of the town.

Jones also cites rotary quernstone fragments, common on sites across the town, as evidence for grain processing on a scale sufficient to supply additional bread to travellers (2010). Without a way of quantifying potential customers and loaves baked, these scattered quernstone fragments may equally represent domestic use and that grain was a staple food of the townspeople. One might have expected small collections of quernstones, or evidence of a mill, if bread was produced on a commercial scale.

Similarly, Jones has argued that the butchery marks evident on 1st and 2nd centuries AD cattle and sheep/goat bones points to meat 'consumed by travellers and traders as well as the inhabitants of the town' (2010, 26). Again, whether this evidence is in sufficient quantity as claimed by Crouch and Shanks (1984, 127), to justify this view has not been calculated. Apart from through travellers, it should be noted that to date no *mansiones* or *mutationes* have been found in the vicinity of Staines-upon-Thames, which is surprising for a settlement in a prime location for official road travellers.

9.6.4 Urban industry

Evidence of small industry has been cited in connection with a possible market centre function for Roman Staines-upon-Thames. Data for leather and metal working industries has not been reviewed in this present study but reference is included here for the sake of providing a balanced view; pottery and agricultural production are reviewed in detail later in the study.

9.6.5 Tanning and leather working

Collections of leather off-cuts have been found in the mud deposits at the western end of the High Street and at the Mackay Securities excavation site (Jones 2010, 26, 332). The former dated to the late 1st and early 2nd centuries AD and those from the latter site to *c.* AD 120-50. These finds represent the debris from shoemaking (new and repairs). However, apart from possible evidence derived from cut marks on cattle bones denoting hide removal (*ibid*), evidence for a tanning industry (and leather industry) in the town is

lacking[148]: no sunken pit or steeping vat have yet been identified. Even if treated leather was imported from elsewhere, shoemaking and repair services must have been common to most settlements of any size and the service extended ad hoc to passing travellers.

9.6.6 Smithing

As with shoemaking, one would expect some evidence of smithing to be found within the Roman town at a level commensurate with the needs of the townspeople. Jones has claimed 'good evidence' for smithing at least three of the excavated sites in Staines-upon-Thames, this in the form of slag, metal scraps of iron and bronze and fragments of hearth lining (2010, 15, 26). Six years earlier Mckinley was reticent on this subject, noting that the occurrence of metal working evidence points to only "very small-scale manufacturing of ceramic building material and smithing" (2004, 24). This is the scale most recently echoed by Ellis who concludes that small amounts of metal working waste found in the excavated enclosure ditch on the Majestic House site, indicated only low level domestic endeavour (2016, 144). With no local sources, iron and other metals would have to have been imported; the nearest major source of iron ore would have been the Weald. The occurrence of metal working evidence at rural settlements, such as Thorpe Lea Nurseries, Harlington and Wexham, suggests that metal working was not centralised in the town or of commercial significance here.

9.7 Historical perspective and summary

The later history of Staines-upon-Thames has retrospectively influenced the idea that the earlier Roman settlement acted as a market centre. At the time of the compilation of the Domesday Book in 1086, Staines-upon-Thames was considered a large community with 140 households and a varied population including 46 burgesses. The resources of the town included ploughable land and woodland and there is specific mention of meadow lands. Six mills provided for the town. By the time of the medieval town, a market area had been established (Poulton 2003b) on the site of present day Market Square (Jones 2010, 142). Documentary evidence of river wharves in the town from the 15th to 17th centuries does 'confirm the importance of Staines-upon-Thames as a market town and trading centre' (Crouch and Shanks 1984, 404) utilising the River Thames. Markets were held weekly up until 19th century (Poulton 2003b, 14). It is therefore unsurprising that there is an

[148] A tannery may have existed at the north-west extreme of the town (McKinley 2004, 48), although what evidence there is for this is unclear.

expectation that the Roman small town on the same site also enjoyed a market centre status.

It can be concluded that the location of Roman Staines-upon-Thames at the crossing point of the Thames River by the London to Silchester road and the town's later function as a market centre, have greatly influenced interpretation of the Roman small town. The specific claims offered in support of a Roman market centre, under scrutiny, have proven to rest on meagre evidence. It would seem that the evidence suggests rather a self-supporting town population in a position to take advantage of casual commercial opportunities afforded by passing travellers. Review of selected data in the latter part of this study will give further consideration to the potential of Roman Staines-upon-Thames as market centre in terms of supplying local rural sites and redistributing goods to large settlements such as *Londinium*.

Urban Morphology

10.1 Introduction

Traditionally, small towns in Roman Britain are thought to have grown organically to form nucleated settlements in association with at least one major road, going on to develop one or more internal streets. This is in contrast to the archaetypal large town characterised by an urban landscape built around a planned grid pattern of internal streets. Early attempts at understanding the morphology of small towns in terms of function and activity can be found in a small number of papers, monographs and books: Burnham (1987); Esmonde Cleary (1987) and Burnham and Wacher (1990). In respect of economic activity, these studies have largely relied on analogies drawn from the urban features of Roman towns in southern Italy, such as Pompeii[149], and those of British medieval and modern minor towns. A medieval market town, particularly apposite here, may be recognised by purposeful morphology: a central market place or broad high street (often with a distinctive funnel-shape) bordered by important buildings and accessed by characteristic drove roads. Modern market towns similarly utilise broad high streets, pedestrian areas and town squares to host commercial enterprises (shops and markets), as well as dedicated spaces for cattle markets. Recognition of such features in the Roman context has, as the review of the case study data will demonstrate, been met with little success. This means that either the small towns acted as market centres, but that the archaeological record is not easy to read in this respect, or that they did not fulfil this role.

The following data review appraises the morphology of the five case study small towns, as far as it is known, in terms of traditional market centre features, expanding to consider those features which might be less obviously associated with economic activity (Appendix B: Tables B.1 to B.5). The term 'urban' is used sparingly (see discussion in Chapter 3) to avoid value-laden connotations associated with larger or modern commercial centres.

10.2 Small town origins and *vici* settlements

Small towns are distinguished in this present study from *vici*[150] (as discussed in Chapter 3), but a certain amount of comparison is useful in interpreting the small town data. *Vici* typically developed in association with frontiers and early Roman forts, e.g. at Vindolanda,

[149] The oft-cited Roman towns of southern Italy had Greek origins and contrasted in plan markedly with the 'haphazard irregularity' of those in northern Italy (Owens 1996, 9).
[150] *Vici* (sing. *vicus*) – the terms generally refers to a settlement tied to another of authority such as a military base or *civitas* centre (Abbott and Johnson 1926).

but have been identified across Britain (Burnham and Wacher 1990, 8). Like many small towns, these settlements developed astride a major thoroughfare (usually the access road to the main fort gate (Sommer 2006, 102-3)) for the mutual commercial benefit of military and civilian *vicus* residents, marketing goods and providing services not available to the soldiers inside the fort. Whilst a military origin has been suggested for Dorchester-on-Thames and Braughing, no conclusive evidence has as yet been found for any type of military installation, although a temporary post-Conquest fort or supply post associated with major road building, cannot not be ruled out for any of the small towns.

Several features are traditionally thought to be common to *vici*[151] and small towns in Britain, northern Gaul and Lower Germany (King 1992, 1995; Gechter 1995; Sommer 2006). These include so-called 'strip buildings', instances of a wider triangular sections of road (eg. at Caerhun and Birdoswold) interpreted as market places (Sommer 2006, 117), bathhouses and shrines. If small towns were initially economically bound to temporary military posts before becoming independent, a shift in commercial infrastructure might be discernible in the archaeological record.

10.3 Internal street layout

The internal street layout of a town can suggest something of the use of space within the settlement. As the street layout of small towns is a visible response to the practical needs (Burnham and Wacher 1990, 23) of the residents[152], consideration of this evidence could provide an insight into how the towns were organised in relation to commercial activity. As with the major towns small towns were not static over time. There is evidence that the centre of Roman Neatham shifted to the south over the 4th century (Millett and Graham 1986, 47) and that by the Late Roman period the town may have become more compact: excavators noted a narrow street and a cobbled alley in the new centre. However, the patchy nature of archaeological intervention within the case study towns has produced only limited data for study (Table 10.1).

[151] The term *vici* is commonly used to denote Roman small towns on the continent and not differentiated in the same way as in Britain.
[152] Possibly derived from tribal administration (Hingley 1989, 88).

Table 10.1 Evidence for the internal road system of the five small towns

Roman small town	Internal road layout	Evidence type/references
Braughing	Partially known – established by AD 80. Not a grid layout. Short access streets noted at Skeleton Green.	Aerial photographs – crop marks (Rodwell and Rowley 1975, plates IXa and IXb, 36; plates IV1a and XV1b, 154). Partial excavation of settlement (Partridge 1975, 146) Burnham and Wacher (1990. 105-106) Niblett (1995)
Dorchester-on-Thames	A north-south road with at least 2 east-west adjoining streets.	(Burnham and Wacher 1990, 119; Henig and Booth, 2000, 61).
Ewell	Possible spur road at Purberry Shot.	Lowther 1949 Fig.1, 10
Neatham	Central crossroads (Silchester-Chichester road/Winchester-London road). Two spur roads heading east and out of town. Access road to bath house. At Cuckoo's Corner, a narrow 3rd/4th century street was found constructed over an earlier ditch. Close to the town centre, adjacent to Structure 11, a Late period cobbled alley was recorded.	Millett (1975, Fig 214, 216) Burnham and Wacher (1990, 266) (Millett and Graham 1986, 33)
Staines-upon-Thames	No side roads known.	(Burnham and Wacher 1990, 308; Jones 2010, 15-25)

The organisation of the internal streets of Roman Dorchester-on-Thames is relatively well known. Deceptively, it appears to be grid-like although the east-west streets are not really perpendicular to the main arterial road (Burnham and Wacher 1990, 119; Henig and Booth 2000, 61). By contrast, only a 'rudimentary' street pattern has been recorded at Skeleton Green (Braughing) for the mid- 1st century AD, indicating side streets to the west of Ermine Street (Rodwell and Rowley 1975, 146), but a focus on Ermine Street. At Ewell, the internal street layout is little known with only a possible spur road running roughly parallel to Stane Street identified at Purberry Shot (Lowther 1949, *Fig*.1, 10). By contrast, a similar gravelled spur road at Neatham (Figure 10.1) is clearly illustrated angled towards the area of the Alice Holt potteries (Burnham and Wacher 1990, 265). However, where short stretches of side roads have been discovered, it is not clear whether they serviced residential or commercial areas in the town, evolved from the passage of agricultural activity, or continued across country to another settlement or industrial focus.

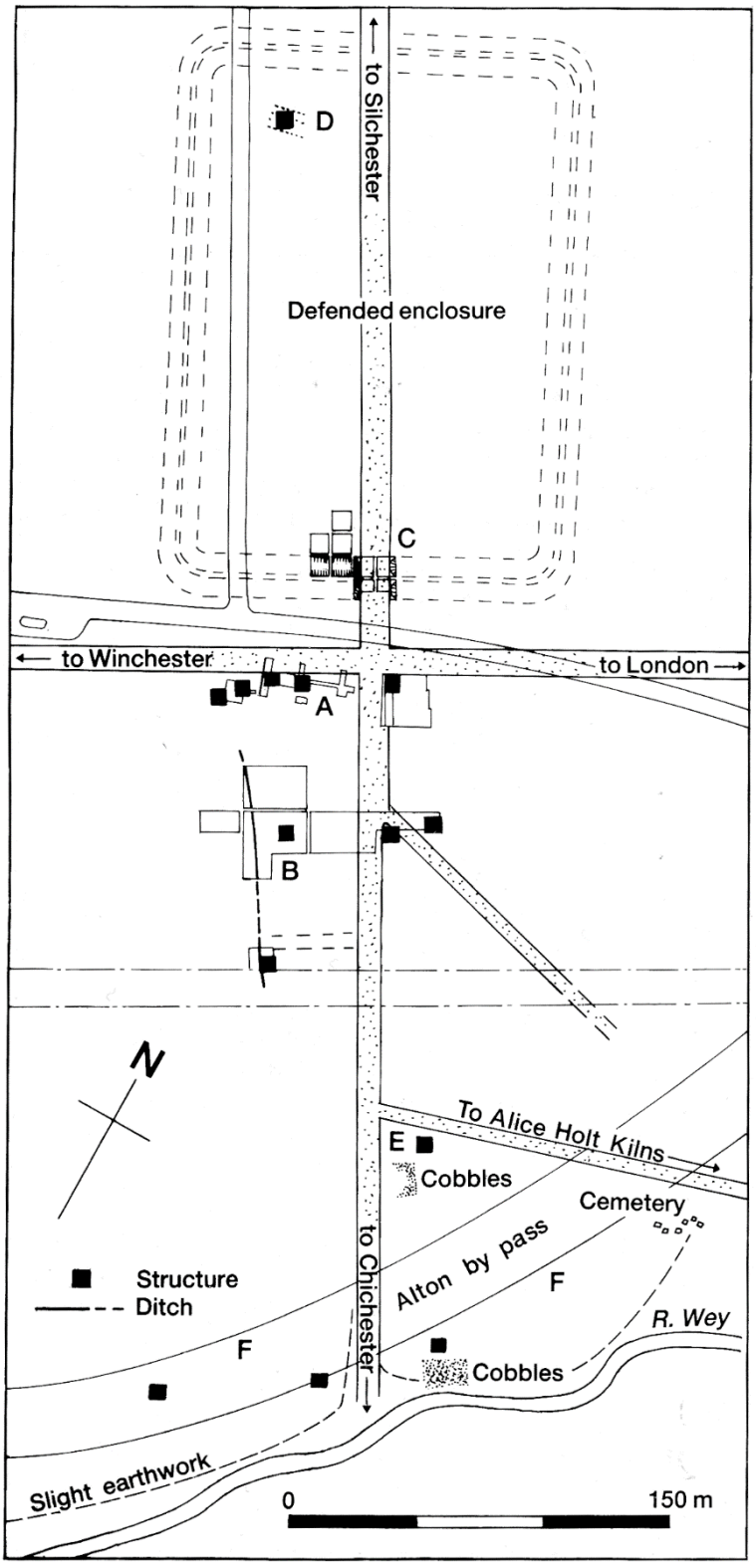


Figure 10.1 Roman Neatham – showing excavated sites and major and minor roads (Burnham and Wacher 1990, 266)

Many of the features (Table 10.1), apart from that for Ewell, were considered three decades ago by Burnham in examining differences in morphology between small towns (1987, 156-190). Burnham's conclusion that these settlements represented economic foci

in the landscape was heavily influenced by the presence of main roads through the towns and the location of roadside buildings (*ibid* 162). Later medieval road organisation has also influenced the interpretation of earlier Roman street layout, as in the case of Temple's study of Dorchester-on-Thames (1988, 144-50). The fact that most archaeological investigations have been conducted at sites associated with the main roads, has contributed to a lack of knowledge about the full extent of side streets and some speculation. Burnham and Wacher for example postulated that 'side-streets and lanes were originally more common [in Neatham]' (1990, 265), but that these are no longer preserved because of the gravel nature of the terrain. Roman Staines-upon-Thames appears to have lacked any side streets (Burnham and Wacher 1990, 308; Jones 2010). Building opportunity was severely limited here behind properties as the surrounding land of the Town Island was marshland and regularly inundated (Jones 2010, 2).

The limited data available for side streets or minor roads in any of the case study towns contributes little to understanding how the edges of the settlements were used. Apart from investigations either side of the defences at Roman Dorchester-on-Thames (Figure 10.2), areas beyond the town nuclei have rarely been excavated, but it is from these areas that the residents would have direct access to the countryside by paths and tracks. Here, Burnham pictured a 'rural: urban fringe' given over to agricultural (1987, 182-3) – a scenario explored in more detail in this present study.

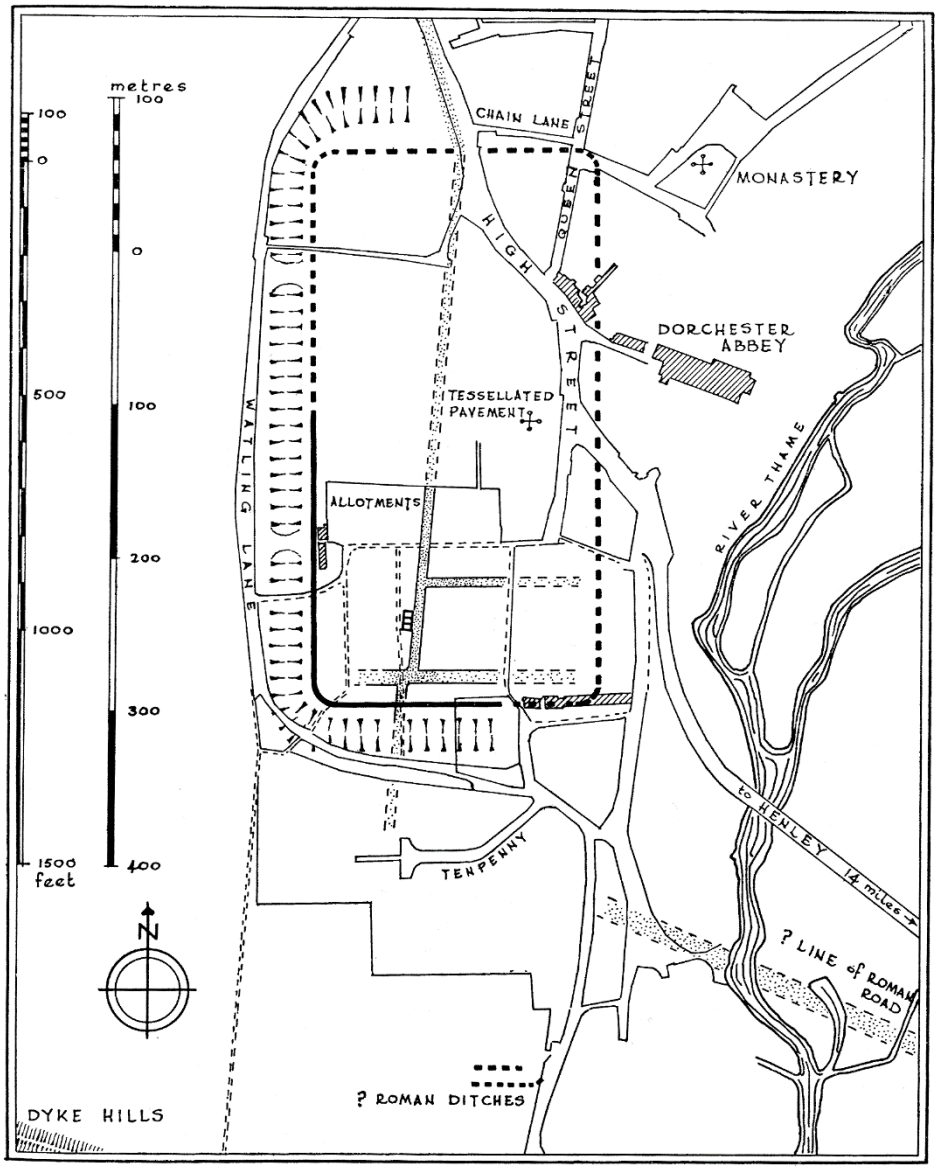


Figure 10.2 Location of defences (ditches/ramparts and later walls) constructed around Roman Dorchester-on-Thames (Frere 1962, Fig. 1, p. 115)

10.4 Strip buildings as shops and workshops

As already noted in association with *vici* settlements, narrow rectangular buildings of timber or part-timber construction are generally held to be characteristic of Roman small towns (Rodwell and Rowley 1975; Burnham and Wacher 1990; Brown 1995) as well as large towns (Perring 2006). Forming rows, or part rows of standardised rectangular buildings and associated plots of land, these have been widely recognised across Roman Britain. Examples have been cited in reports, for example, from Leicestershire (Liddle 1995, Table 8.1, 82) and Essex (Rodwell 1975, 85), and have become a subject of some focus (Burnham 1987, Burnham and Wacher 1990, 15-20). Recognition on an excavation site is not governed by any universal standard for this type of building and size varies

widely (Burnham 1987, 176; King 1992, 86; Gechter 1995, 199). Detailed archaeological investigations have shown that many examples were internally subdivided, leading to the supposition that these separate areas represented commercial and domestic activity. This reasoning has contributed to the belief that strip buildings represent evidence for trading activity (Burnham and Wacher 1990, 45-46). The tenuous *vici* connection has also been drawn upon to support this idea, based largely on King's description of *vici* buildings with open or colonnaded road frontages displaying distinctive shop fronts with counter or work space (1992, 86). The belief that strip buildings in small towns largely functioned as shops is rooted in comparative association with settlement types closely associated with Roman military or culture: the whole being heavily influenced by the Italian shops of *Pompeii* and *Herculanium* (MacMahon 2003). The latter reasoning has more recently been shown to by Perring (2006) to be problematic. Against this background, the evidence for this type of building in the five case study towns (Table 10.2) is considered below.

10.4.1 Early Roman strip buildings (AD 43-150)

Table 10.2 Evidence from the Early Roman period for rectangular/strip buildings

Small town site	**Road**	**Evidence from the Early Roman period**
Braughing, roadside buildings	Ermine Street	Post-AD 68: hearths, clay floors, gullies, pits, postholes - timber buildings 'appeared' to be workshops.
Braughing, Skeleton Green workshop	Ermine Street	Timber buildings: floors of flint and gravel 15 BC to AD 40. Replaced c. AD 43-65 by rectangular timber buildings of sill-beam type. Abandoned end of the 1st century. Migrant community?
Braughing, building 2	Main street	AD 80 - 350 street front portico - stone (20m x 18.5m)
Braughing, Wickham Hill	Ermine Street	AD 43 - 200: buildings on both sides of street
Dorchester-on-Thames, Castle Inn	Silchester-Alchester	1st C+ timber buildings, 2nd C
Ewell, St Mary's Churchyard	Stane St	Strip buildings either side of road - end of 1st C. 8 m cobbled yard to W of road AD 70-160
Neatham, Area A (crossroads)	Crossroads	Structures 1, 2 and then 3 by road (AD 70 -125)
Neatham, Str. 4 and 5	Silchester-Chichester	3 structures facing road + open area with pit (demolished AD 125)
Staines-upon-Thames, Friends' Burial Ground	London - Silchester	Beam slot and box-frame workshop/houses with painted plaster walls.

Excavation reports attest to all five small towns having strip buildings (or similarly described rectangular constructions) during the Early Roman period, invariably in association with a major Roman road. None have been found along side roads. At Roman Ewell, strip buildings have been identified only at the northern extent of the town (St. Mary's Churchyard), whereas those at Roman Neatham are central to the developed area, a variance also noted at other small towns such as Dragonby and Ilchester (Burnham 1987, 176). The scattered distribution of archaeological interventions in the case study towns provides an incomplete picture of the built up areas. In the case of Roman Ewell for example (Figure 10.3), whilst the town is thought to have extended along both sides of Stane Street for approximately one km (Pemberton 1973; Bird 1987), a prospective nucleus has yet to be located. Similarly at Roman Braughing, where archaeological attention has been focussed on sites to the west of Wickham Hill and close to Ermine

Street (Figure 10.4), it is clearly shown here that very little is known about the area most likely to constitute the nucleus of the town (Burnham and Wacher 1990, 103).

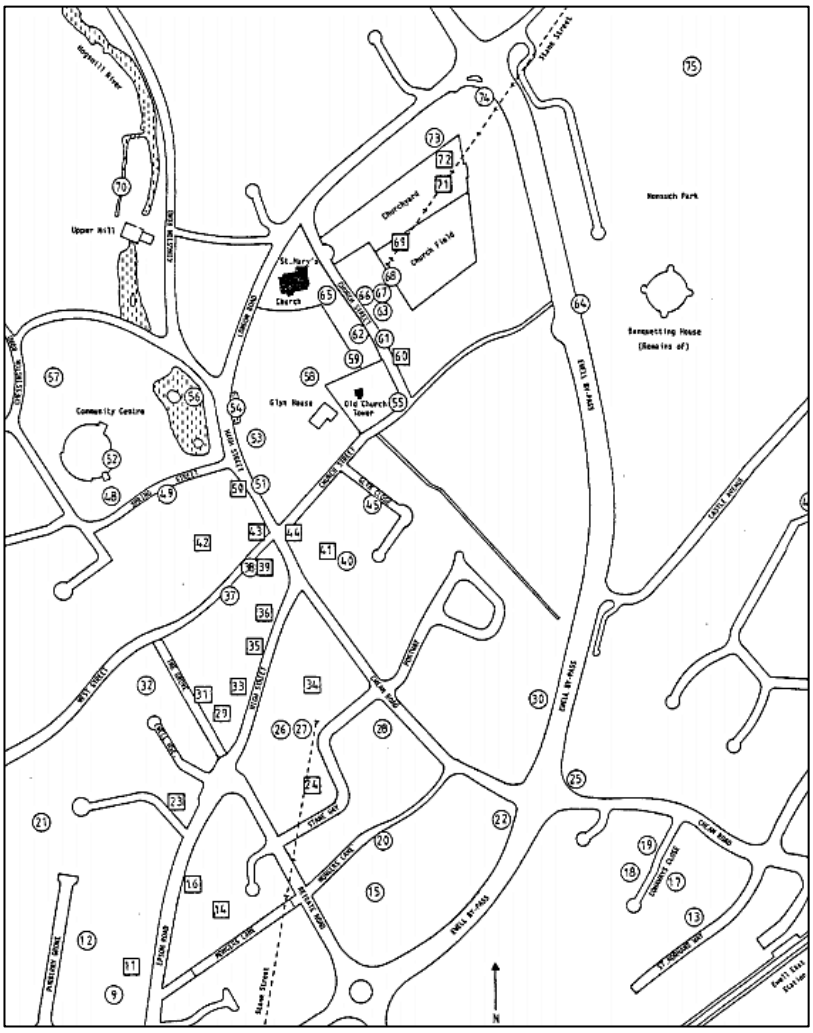


Figure 10.3 Roman Ewell showing points of archaeological interest (numbered) and the Roman road (dashed line) (after Abdy and Bierton 1997, 129).

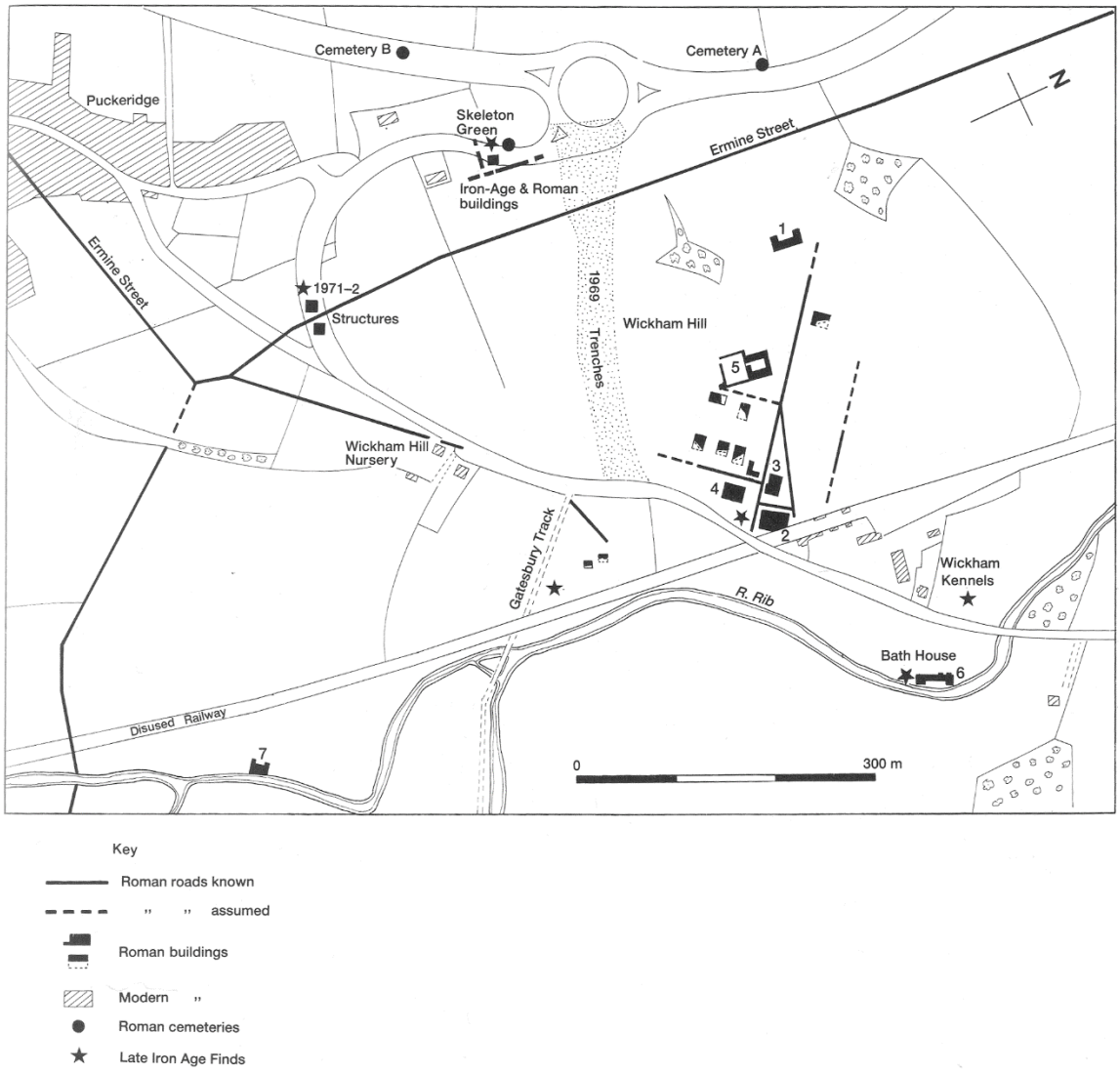


Figure 10.4 Roman Braughing: Archaeological interventions and Roman roads (Burnham and Wacher 1990,105)

At the western edge of Roman Braughing the earliest remains of rectangular roadside buildings are those at Skeleton Green and are among a number of timber buildings recorded (Partridge 1975, 1981; Partridge 1979; Branigan 1994). These date from the LIA and bordered the route later taken by Ermine Street; they were succeeded in the early post-Conquest years by a new series of roadside timber buildings and associated minor streets (Partridge 1981, 34). Two buildings appear to have been accessed from side streets and, with a lack of evidence for commercial activity, Partridge has suggested a possible military or official function (1981, 49). The remaining buildings from this early period are speculated to have had an economic function (Barr and Gillam 1961, 108-16), but it is readily admitted that there is no evidence for this (Burnham and Wacher1990, 110): the roadside location is simply suggestive of the provision of goods and services perhaps to

passing military or official personnel. Without evidence of counters, storage, small industry or food preparation areas a commercial purpose is hard to justify.

The basis of strip buildings as commercial enterprises in the five small town case studies largely rests on the liberal interpretation of recovered features, as in the example of the late 1st century AD strip buildings at Roman Ewell. Building 1, excavated at St. Mary's churchyard, had an 8 metre cobbled yard at the side of the building (no dimensions given) with a boundary marked at a right angle to the road (Pemberton 2015, 33). According to Pemberton, the purpose of this type of building was to attract passing trade entering the town (2015, 34), but there is no evidence from the building context to indicate how this plot was actually used. In the south-east quarter of Roman Dorchester-on-Thames, excavation at the Castle Inn[153] site produced evidence of regular 1st century timber buildings although of unspecified shape (Bradley 1978). At the crossroads of the Silchester-Chichester road with that running from Winchester towards London at Roman Neatham (Area A), three rectangular buildings, one (Structure 3) with a veranda, were erected between AD 70 and AD 125. Millett and Graham thought them comparable with the style of early military buildings and remarked that the fronts of the buildings were particularly substantial and impressive (1986, 15). In fact, Millett and Graham were able to trace the redevelopment of this area through successive buildings and observed that the frontages were more substantial and impressive than the backs (1986, 19, 24). If the crossroads acted as an early focus for the settlement, these buildings were designed to impress passers-by, but whether they were domestic residences, workshops or whether goods were sold from the frontage is not evident from the internal features or finds from within. Three further Early Roman period buildings are also known to have been constructed facing the Silchester-Chichester road in the centre of Neatham (Millett and Graham 1986); by AD 125 these had been demolished.

The Roman small town of Staines-upon-Thames has provided more evidence for the nature of strip buildings. These are thought to have been constructed along both sides of the London-Silchester road; most plots uncovered to-date lie on the south side of the road. The buildings were generally erected close to the road with rear plots giving way to 'backlands' containing pits used to dispose of domestic rubbish; far backlands extended towards the edges of the island where the high water table here was managed by drains and dykes. Rebuilding took place on the same sites adjacent to the road. The western end of the island

[153]Also known as the Old Castle public house.

was dominated by timber roundhouses (McKinley, 2004, 10), an indigenous building form not particularly associated with commercial activity.

The Early Roman beam slot and box-frame buildings of Staines-upon-Thames were apparently more than utilitarian. The buildings at the Friends' Burial Ground site were decorated with painted plaster walls; improvements were also carried out on later buildings (Crouch 1984). At the Tilly's Lane site a mooted high status building was uncovered with stone wall foundations and a tessellated floor (Anon 2000). At the Prudential site, between AD 80 and AD 100, buildings with clay floors were found to have fronted the street and by AD 120/140 continuous building had produced further similar structures along the street (Jones 2010, 340). At the Johnson and Clarks site a timber and daub building dating from the 1st century AD was discovered close to another more elaborately decorated with painted wall plaster and tessellated and *opus signinum* floors (Jones 2010, 241). A 1st /2nd century AD timber building at the Elmsleigh Centre with a colonnade facing the road (Jones 2010, 75) and a nearby a substantial building from around AD 80-120 (robbed out) also seem to have been impressive. This catalogue of elaborately decorated roadside buildings suggests that the owners were keen to project a degree of wealth and status to town visitors and may have been used as places of business. However, this interpretation derives from the perception that buildings with villa-like characteristics were intended for this purpose (Hingley 1989). Jones notes that the Elmsleigh section of the main Roman road was built up by c. AD 120, but that these early structures did not stand beyond the late 2nd century (2010, 62). Contrary to the other four small towns, the roadside buildings in Early Roman Staines-upon-Thames exhibit a greater degree of affluence and status. However, evidence for strip or roadside buildings as commercial units in any of the Early Roman towns, is unconvincing.

10.4.2 Mid- to Late Roman strip buildings (AD 150-410)

Evidence for strip buildings can be traced into the later Roman periods in all the small towns. By the 3rd century AD in Roman Dorchester-on-Thames, several east-west aligned timber buildings had been constructed, apparently fronting a side street, with floors of clay and gravel and painted walls but these buildings were clearly domestic dwellings (Bradley 1978, 36). However, commercial functions are claimed for a large number of roadside small town properties. At Roman Braughing, the southern part of the settlement expanded in the 2nd century AD with strip buildings lining both sides of Ermine Street; the earliest northern section of Skeleton Green was reused by this time as a cemetery (Partridge 1981,

37-40). The new development is, again, claimed to have had a commercial function (Rodwell and Rowley 1975, 142; Partridge 1981; Potter and Trow 1988, 9-13; Burnham and Wacher 1990, 108). Indeed, evidence has been found here of metal-working (iron and bronze) and of bone being worked (Potter and Trow 1988, 9-12), arguably to supply road travellers. However, the third century succession of buildings had more substantial yards, extending 35m back from the road, and encroached on the margins of the road (Burnham and Wacher 1990, 108). This suggests two changes: firstly, that it was not important to keep the road clear for traffic and, secondly, that the back yards were needed to grow food crops or raise animals. Examples of this type of encroachment on the 'open space' of the road by adjacent buildings is common to the other small town case studies. If this new building practice means that road traffic had diminished, then the opportunities for exploiting passing trade and the requirement for shops and workshops would also have decreased. The workshops must then have existed to supply local residents.

In the centre of Roman Neatham, rectangular buildings have been excavated clearly aligned with the main through roads and dating from the Mid-Roman period. In particular, a sill beam rectangular structure (No. 7) was noted by the excavators as having two distinct parts with a narrow bay at the front of the building which suggested it might have been a shop (Millett and Graham 1986). This interpretation was purely based on the shape of the building as there were no corroborative finds; the building was destroyed by fire in the middle of the 3rd century AD. Aligned with the Silchester-Chichester road in the centre of the town was a narrow strip building on the east side, dating from between AD 194 and 201. Further buildings were found abutting the Winchester-London road, and clustered around the crossroads: two aligned with the Silchester-Chichester road and four the south edge of the Winchester-London road. Excavators noted that of these, Structure 5 seemed to face both roads at the junction and may have been a shop, whilst a late 2nd century feature, Structure 4, may have represented a row of shops before being destroyed by fire and the area gravelled over (Millett and Graham 1986, 16). Other rectangular buildings have also been located beside the main roads, but further from the central junction. To the south, but north of the modern Neatham by-pass, Structure 21 on the east side of the Silchester-Chichester road consisted of a five metre wide building with a veranda with associated gravel area (15 m wide) to the south and a gravelled side-access road to the north (Millett and Graham 1986, 51). At the Holybourne Depot site to the west, a Mid-/Late Roman rectilinear post-built structure (10m x 5m) was also found close to the Winchester-London route.

The rectilinear buildings in Roman Neatham dating from this period may represent workshops. At least five structures (Area F), including No. 23, were timber built in the 3rd/4th century, and had evidence of bronze working (slag) and crucible and metal droplets (Millett and Graham 1986, 53). Structure 24 had a small oven and large gravelled yard outside leading to the river edge. Property boundaries generally appear to have been regular and may therefore been planned (Millett and Graham 1986, 151-3).

At Staines-upon-Thames, following a '3rd century hiatus' in the development of the town (Jones 2010, 62) buildings at the Elmsleigh Centre site did not conform to the earlier street front distribution (*ibid*, 62-3). On the Prudential site, Late Roman period construction included a 3rd/4th century AD rectilinear timber building fronting the road which has been attributed wealthy features including floors of *tesserae* and *opus signinum* and whitewash plastered walls (*ibid*, 342). Coloured wall plaster was also recovered from the Johnson and Clarks site, hinting at an elaborate Late Roman building nearby (Jones 2010, 249). Evidence from this period points to wealthy residences but not fronting on the main road in the 4th century, and with no evidence of shops or workshops.

By the mid- to late 4th century, the construction of Building 2 in Roman Ewell and nearby byre (Pemberton 2015, 34) did not respect the line of Stane Street; the road by now was apparently much less frequented. It is not clear from the sources where any further examples of roadside buildings may be found.

10.4.3 Comment on the presence of strip buildings as evidence for market centre shops

The data reviewed above demonstrate that evidence for strip buildings is common to all five case study towns, particularly during the Early Roman period when the major roads were newly constructed. Over time, the orientation of rebuilds and new structures largely adhered to the early building footprints with timber structures often repeatedly reconstructed (Burnham 1987, 178). Nevertheless, the admissible evidence for Roman Ewell and Dorchester-on-Thames is scant; although as yet undiscovered examples might be anticipated. The presumption that these buildings had a commercial function to any extent is not supported by any finds of stock remains, measures, or by features such as counters, in any of the case study small towns. Those with street-frontage in Roman Staines-upon-Thames were particularly noted for high status features and expensive decoration, although the source of wealth is not known. As such they were unlikely to have hosted workshops or retail activity. That later versions of some rectilinear buildings

encroached on the road margins (by how much is not clear) may point to a reduction in road usage. The fact that land marginal to known Roman roads is often the main focus of archaeological attention in the landscape of the town, may have led to too much weight being given to these buildings at the expense of other areas of the towns. These buildings then only have a limited value in assessing whether a small town might have functioned as a market centre at any time during the Roman period.

10.5 Pottery and tile kilns

Evidence of kiln sites within the built up area of a town, used to produce either tiles or pottery, can indicate the extent to which demand for these products might be met locally. A town kiln might have supplied only the town residents or local rural centres too (Burnham and Wacher 1990, 48). Kiln sites, whether individual or clustered as an 'industry', were probably operated seasonally (Tyers 1996, Allen 2017, 203), a practice attested for example at Elms Farm, Heybridge (Biddulph 2015, 16). Potters would have been involved in farming, building maintenance and craft work throughout the remainder of the year. Evidence for kiln sites in any of the five small towns is sparse and generally linked to pottery rather than tile production for wealthy residences (Table 10.3).

Table 10.3 Summary of the evidence for town kiln sites

Small town	Description of location	Kiln site evidence	Date	Comments/Reference
Braughing	Gt Chesterford road	Kiln debris found.	No date suggested	On the edge of built up area (Thompson 2005)
Dorchester-on-Thames	Watling Lane	Kiln site but no associated pottery found.	Early Roman	On the edge of built up area.
	Abby Well	Pottery dump: white ware, oxidised	1st C. (Early Roman)	?kiln site
	Allen pit/Bishop's Court	3 kilns, waster dumps: white ware, colour-coated	2nd-4th C (Early-Late Roman)	On the edge of built up area.
	Alchester road	Not clear.	Date not given	On the edge of built up area.
	Beech House hotel	No pottery found – may have been lime kiln.	Late Roman	Within NE corner of defences.

	Berinsfield (1.5 km from town centre)	2/3 structures, wasters, kiln material, potter's puddling table c. 20 m south of kiln	2nd century onward (Early/Mid-Roman)	146 m east of Dorchester-Oxford road. (Wilson, Wright and Hassall 1973; Rowley and Brown 1981)
Staines-upon-Thames	Central Trading Estates 56 High Street	Small amount of mixed tile and brick waste material – no kiln. Possible oval kiln	Early/Mid-Roman and possibly later Early (pre-Flavian)	(McKinley 2004) Literature reference only - no corroborative evidence available (Swan no date).

Table 10.3 demonstrates that of the few kiln sites identified, two have been tentatively identified through dumped pottery waste alone, material from an unknown kiln site. The clearest evidence for town kilns is from Roman Dorchester-on-Thames where kilns have been located on the edge of town[154] (Wilson, Wright and Hassall 1973, 297; Rowley and Brown 1981). The wasters indicate the production of white and colour-coated ware, in keeping with the nearby wares of the Oxford industry and possibly indicating town involvement in wider pottery production.

At Roman Staines-upon-Thames urban pottery production is widely claimed in the literature although the evidence for kiln sites is very thin. At the Friends' Burial Ground site, Crouch and Shanks have asserted that the late 1st century pottery found here was largely supplied by early 'local Staines-upon-Thames kilns' which, they suppose, went out of production by AD 100-120 (Crouch and Shanks 1984, 126). Crouch and Shanks also assigned examples of Early Roman (pre-Flavian and Flavian) coarse and fine ware pottery of varying styles[155], to 'a local pottery industry' at Staines-upon-Thames (1983, 253), produced by both civilians and a military unit based in the town soon after the Conquest (*ibid,* 255)[156]. McKinley has claimed that 'potential sources of the mica-dusted wares, for example, include *Pontibus* itself' (2004, 30). Most recently Ellis has stated that a sparse representation of fine grey wares, fine oxidised (buff or orange-firing) wares and grog-tempered types were probably derived from relatively local sources (2014, 31). With

[154] The site at Berinsfield is also included here as it is very close to the town (1.5 km).
[155] Including imitation Red Pompeian ware, London ware, Gallo-Belgic wares and Trier butt beakers.
[156] It should be noted however that the idea of a Roman fort as the precursor to Staines-upon-Thames has now been largely discounted (Burnham and Wacher 1990,307-8; Jones 2010, 14).

respect to these claims and the scant data for kiln sites compiled in Table 10.3, local pottery used in Staines-upon-Thames is most likely to have come not from the town, but from but further north in the Colne Valley where kiln sites have been confirmed (Jones 2010, 105).

The limited data for kiln sites from the case study towns points to stylistic association with nearby pottery production sites and the likelihood that the town residents obtained locally sourced pottery. This is contra Allen's assertion that nucleated centres were more likely to have had pottery kilns due to 'their role as market centres' (Smith 2017, 204)[157]. Nevertheless, the calculation that at 18-19% of all nucleated settlements (towns – 'villages') production sites endured throughout the Roman period (Smith 2017, 206, Fig. 5.18), is consistent with the data here, as is the idea that settlements in areas where suitable clay was available, are likely to have produced their own coarse ware. There is no evidence of tile kilns from any of the towns.

10.6 Storage buildings for grain or other commodities

If a Roman small town functioned as a market centre evidence of robust structures such as storage rooms, granaries or barns might be expected[158](Smith 2016, 44-74; Lodwick 2017 67-68). This type of facility would be necessary if grain was collected and stored for redistribution to rural customers or to those in a large town, such as *Londinium.* Against this expectation, evidence for any type of building which might have served this purpose is difficult to be certain of outside military installations. Centralised storage among civilian settlements either took a different form, less easily recognised in the archaeological record, or any such practice did not include the small towns in this present study. Imported grain, rather than British grown, stored in warehouses and packaged for distribution, is attested in *Londinium* (Perring and Brigham 2000; Hill and Rowsome 2011). Possible granaries have been identified in Southwark at site 18 (dated AD 70), two at site 3, two at site 23 and one at site 24 (Cowan *et al.* 2009, *Fig. 2,* 4; 102-3), all on the northern most island of the settlement. The grain presumed to have been stored here may have been for ale or bread-making although no evidence for any bakeries has yet been mooted (Cowan *et al.* 2009, 104). These examples do not provide many clues to the overall marketing and distribution of grain or the potential involvement of small town settlements.

[157] The Roman Rural Settlement Project found that c. 28% (n=24) of defended small towns in Britain and c. 17% (n=182) roadside settlements had evidence for pottery production, compared to less than 10% of farmsteads and very few villa (Smith 2017, 205 Fig. 5.15).
[158] Deep bell-shaped storage pits were commonly used in southern Britain to store grain before the Roman conquest (Smith and Kenward 2011).

Table 10.4 Evidence for storage buildings for the whole Roman period

Small town	Evidence	Comment/Reference
Dorchester-on-Thames	Large building to the south of the central gravel area included a grain storage room. Aisled building AD 250	(Burnham and Wacher 1990)
Ewell	Possible barn on King William IV site (5m x 2.5m)	AD 70-120 (Early Roman period) (Orton 1997)
Neatham	Aisled timber building (c. 18m x 6m)	Located within *mansio* enclosure (2^{nd} /3^{rd} century) (Graham 2009)
Staines-upon-Thames (Hengrove Farm)	Barn or granary	2^{nd} century AD (Poulton 2007)

Table 10.4 demonstrates that there is very little evidence for any type of storage building from any of the case study towns; none at all has yet been found at Roman Braughing. Such evidence as there is has been tentatively linked to the storage of grain, rather than pottery or other goods. The most compelling evidence is for the large building in Roman Dorchester-on-Thames thought to be a grain store on the basis of a number of quern fragments found here (Henig and Booth 2000, 61). These finds would also indicate that the grain was not only stored but milled on site to produce flour for local consumers[159] in the town. The fact that this is not a raised granary construction means that any grain was probably stored in sacks and, again, would not remain in situ for very long without spoiling. At Roman Ewell, the light rectangular timbered building unearthed with solid floor has been interpreted as a granary (Orton 1997, 95). A granary function has also been claimed for the aisled building identified at Hengrove Farm on the edge of Roman Staines-upon-Thames, [160] (Poulton 2004). The possible storage building identified within the *mansio* compound at Neatham (Millett and Graham 1986) may have had another function entirely.

The uncertain data collated here corresponds with Fulford's observation based on a range of rural sites (including some small towns) that there is a general lack of evidence for granaries in Britain, despite there being many such structures recorded in Roman Gaul (2017b, 362). One solution may be that in response to the nuisance of pests spoiling stored grain (Smith and Kenward 20011, 252) in the damp conditions of Britain, grain stores were

[159] Flour would not have kept well enough for transporting long distances.
[160] This building had enough height to have accommodated a first floor, which would have provided dry storage.

kept small and in a variety of locations (sacks, baskets, jars and pits) for the best preservation.

10.6.1 Corn driers

The only evidence for a corn drier in any of the case study towns is in the form of a flue identified on the outskirts of Roman Ewell, discovered amongst a number of pits and of uncertain date (Cotton and Sheldon 2006). This method of processing grain for storage, on present data, was not commonly carried out within any of the small towns, with the implication that cereals were processed in the countryside, of which there is further discussion in Chapter 13.

10.7 Breweries

The presence of a brewery in a small town implies large scale ale production for regular consumers at a *mansio*, market or event. Allen and Lodwick determined from rural site brewery evidence that ale was made for local consumption rather that export (2017, 145). At only two town sites is there any hint of this type of industry, the evidence being at best, tentative (Table 10.5).

Table 10.5 Evidence of Roman period breweries

Small town	**Evidence**
Ewell – King William IV	Possible malting house structure
Neatham – Holybourne	Clean malted grain found in a ditch

At the King William IV site, Ewell, Orton has conjectured that the previously mooted granary (Table 10.5) may have been a 'malting house' (1997, 118); his excavation did not provide decisive evidence. The Holybourne site at Neatham did not reveal a structure, but clean malted grain was found in a ditch fill suggesting the possibility of a local brewery (Manning 2009, 18, 22). The excavators (Wessex Archaeology) felt that the amount of grain collected was too small to support this claim (Powell 2008, 24), but did concede that this may simply have been where malted grain was stored for a, as yet to be found, brewery. The location of the discarded malt however, was close to a sacred spring, major Roman roads and a probable *mansio,* factors which are thought to have been significant at other brewery sites such as Springhead in Kent (Andrews *et al*. 2011). No further evidence for brewing is available from any of the other small towns, from which it can best be concluded that large scale ale production was not common to these settlements.

10.8 Market places and market buildings

10.8.1 Market places

Any large open, level, gravelled space within an urban landscape may represent a market space, especially where there is coin loss evidence. According to Rogers, such features have been found in both large and small towns in Britain during the early Roman period (2011, Table 6.1 on p 126). In some small towns this may indicate the reuse of open space defined by an earlier military presence (Hingley 1989, 91; Green 2018). Only two open spaces have been recorded in the five case study towns (Table 10.6): one at Dorchester-on-Thames (Frere 1984, 93, 1985; Burnham and Wacher 1990, 120) and one at Neatham (Graham 1972; Millett and Graham 1986).

The potential significance of a defined open area in a town with a market place or forum is compelling. A gravelled area may be the legacy of the formal layout of an earlier military fort on a settlement site (Waldcock 1998; Rogers 2011), as described by Waldcock at the Roman auxiliary fort at South Shields, Tyne-and-Wear[161]. A similar gravelled open area has been identified in the Cornhill area of London, to the north of a major road T-junction (Wallace, 2014, 52, 59)[162]. These areas may have been used as hard-standing for road vehicles originally and developed into foci for trading goods. Wallace has reasoned that the term 'proto-forum' is an appropriate label for this space due to the fact that the later Flavian forum occupies part of the site and that there are similarities of construction and position with fora in the Roman towns at Autun and Nimes. Rogers notes a similar continuity in a number of towns in Britain, such as Chichester, where an earlier gravelled area was superimposed by a forum complex (2011, Table 6.1 p. 126). Rogers has further argued that the site allocated to a Roman *forum* may have overlain an earlier site of ceremonial, or religious activity, offering Elms Farm, Heybridge as an example (Atkinson and Preston 1998; 2015), or economic significance (e.g. a market place) to the earlier inhabitants of the area (Rogers 2011, 75). These areas may represent an enduring place within a town, but as the settlement around became more built up, was retained as an open

[161]This was constructed from layers of sand, covered with cobbles and overlain with gravel, with dimensions of 35m x 30m (Waldock 1998,71), adjacent to a road junction and possibly used as a parade ground although rather small compared to the parade ground at Maryport which was 87m by 85m. Available from: http://etheses.dur.ac.uk/4995/1/4995_2446.PDF

[162] The construction of this metalled area dates from the early Roman phase of the city, between the Conquest and the Boudiccan Revolt and was later covered by a forum. The space covers an area c. 40 m (north to south) by 33m (east to west) – comparable in size to the previous example - and appears to have been carefully levelled before being covered with a layer of washed gravel.

space for meetings, ceremony, religious activity and markets, although those in small towns never became monumentalised as *fora*.

Table 10.6 Open spaces and market places

Roman small town	Market place and market building evidence
Braughing	Large stone building (No. 2) suggested as a small market place (Todd, 1970, 123; Rodwell and Rowley 1975, 148)
Dorchester-on-Thames	Gravel area – 37.5m x 33.8m located in centre of town close to N-S road. Associated with a building? *macellum.*
Ewell	None found to-date. No gravelled area has been revealed which is large enough to host a market.
Neatham	Late Roman period 'market' 21m x 15 m gravel area found close to the Silchester-Chichester road with noted occupation layers (sand/flint floors); thought to be a trading area because of the large number of 3rd and 4th century coins in the occupation layers. An aisled timber building existed on N. boundary c. AD 270
Staines-upon-Thames	None found to date. No gravelled area has been revealed which is large enough to host a market.

Open gravelled areas of various sizes have been identified at Roman Dorchester-on-Thames and at Staines-upon-Thames (Table 10.6). In the 3rd century the whole crossroads at Roman Neatham was gravelled over which might suggest an attempt to lay out a market place. However, it may have had timber buildings on top (Burnham and Wacher 1990, 268), so actually represents remodelling of this central space for housing rather than for commercial use. High coin loss (3rd and 4th century coins) was noted at this site, along with a similar pattern at sites in Roman Braughing and Dorchester-on-Thames sites, which superficially suggests commercial activity. However, sites with high coin loss are not uncommon in the Late Roman period when it is generally accepted that a high volume of coins were in circulation, thus not necessarily signifying commercial activity (Moorhead 2013). Nonetheless, as Dearne has noted, 'it is tempting to identify a large open space in a settlement as a market place', especially where finds of coins and weights are forthcoming (2018, 78). However, among the case study towns even this minimum requirement has yet to be met.

10.8.2 Market buildings

The remains of central masonry structures have been mooted as market buildings, although as often courtyard buildings, these structures bear little resemblance to the formal *macellum* of large Roman towns (Burnham and Wacher 1990, 49). Notwithstanding,

market buildings have been speculatively identified at Roman Braughing, Dorchester-on-Thames and Neatham (Table 10.6).

The limestone L-shaped building with flint and mortar foundations at Roman Braughing has been excavated to show a well-worn doorway and veranda facing onto a main street (Holmes 1955, 94-96, 104-106; Partridge 1978, 65-70). It is large, around 35m by 20 m, and having been constructed c. AD 80 lasted until the mid- to late fourth century. The function of this building is unknown, but finds here in the 1860s of 'thousands of coins' (VCH 4, 1914, 151) have led Burnham and Wacher to suggest that it might have been the site of a market (1990, 109), confusingly, having also declared (*ibid* 49) that this interpretation is no longer valid and that the building was probably a temple. Perhaps it was both. The open gravel space in the centre of Roman Dorchester-on-Thames had a substantial 2nd or 3rd century AD building to the south: 'as with other towns, this space probably served for a market space' (Frere 1984, 93; Burnham and Wacher 1990, 120). In this case the authors are more reticent about the extent to which the building[163] had a commercial function or was directly associated with the supposed adjacent market area (Figure 10.5).

[163] Not to be confused with the masonry footings of three room building also found by Frere, but assigned a date early in 5th century (1962, 123).

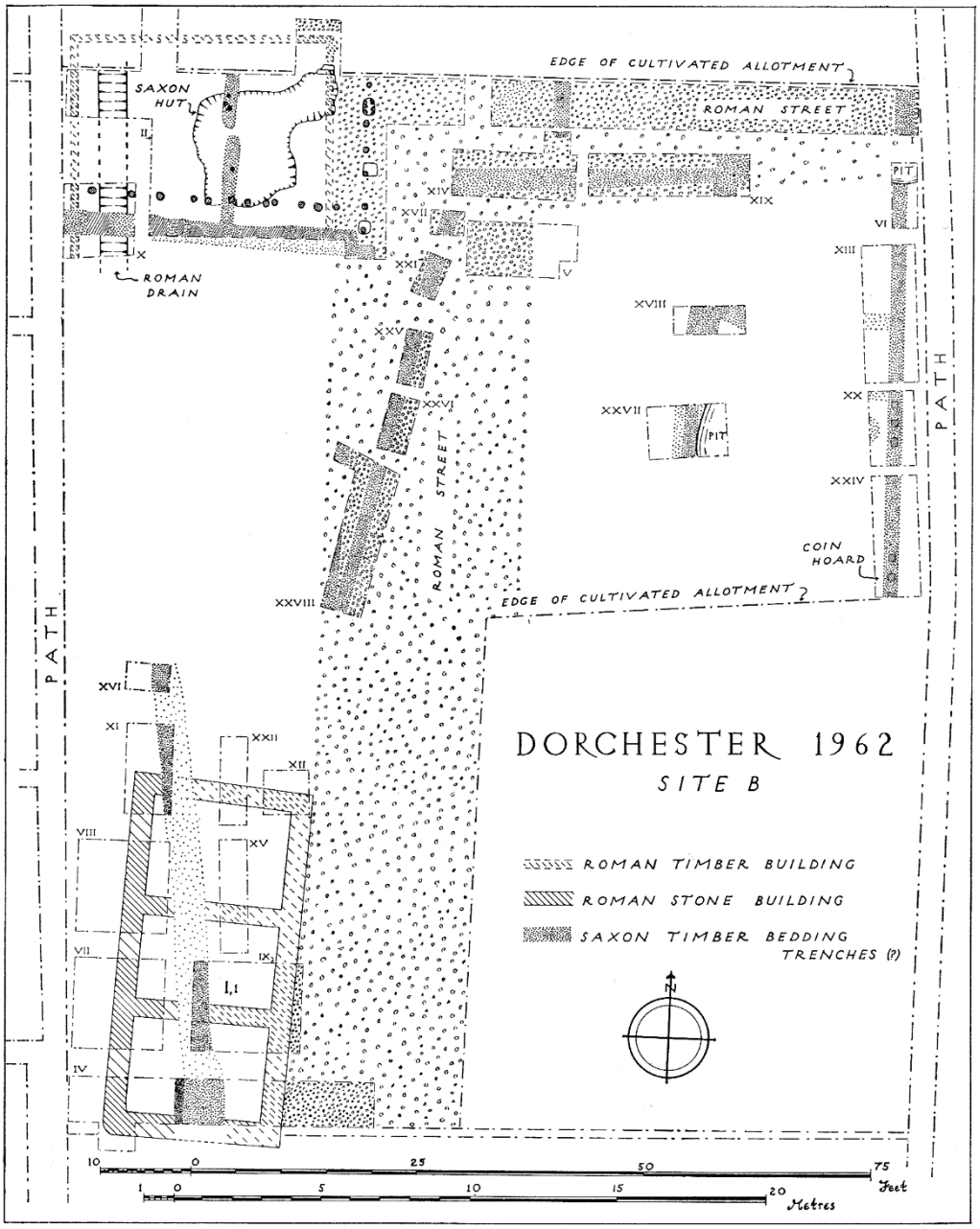


Figure 10.5 Excavation of Dorchester-on-Thames Site B showing Roman road and masonry building (bottom left) (Frere 1962, Fig. 5, p. 120)

No market place or market building has been mooted at Roman Ewell nor gravelled area large enough to be considered for this use. At Roman Staines-upon-Thames a market site has been suggested at the site of the present day Market Place, based on evidence of leather working (off-cuts and waste) dating from the early 2nd century AD and late 4th century AD (Jones 2010). This is very doubtful as during the Roman period this peripheral area was probably subject to regular inundation and waterlogging and not a suitable location for a permanent market place (Bird 2004a, 58-59). It must therfore be concluded that there is no firm evidence for market places or buildings in any of the case study small towns.

10.9 Waterfront structures

All of the case study towns were sited very close to the Thames River or one of its tributaries. The tendency of the Roman road network to dominate discussion of communication and trading routes allied to these small towns is largely driven by the elusive nature of evidence relating to the alternative use of the waterways. The propensity of the Thames river system to flooding during the Roman period, resulted in river bank erosion, silted side channels and large stretches of valley floor periodically inundated. Constant reshaping of marginal river land is likely to have undermined structures such as quays and consequently the chances of any remains of such features surviving along certain stretches of the river. A survey of the Staines-upon-Thames (Figure 10.6) shows this situation very well (Jones 2010, 2). Limited evidence for waterfront structures can therefore only be drawn upon to make a modest contribution to the discussion on market centre function.

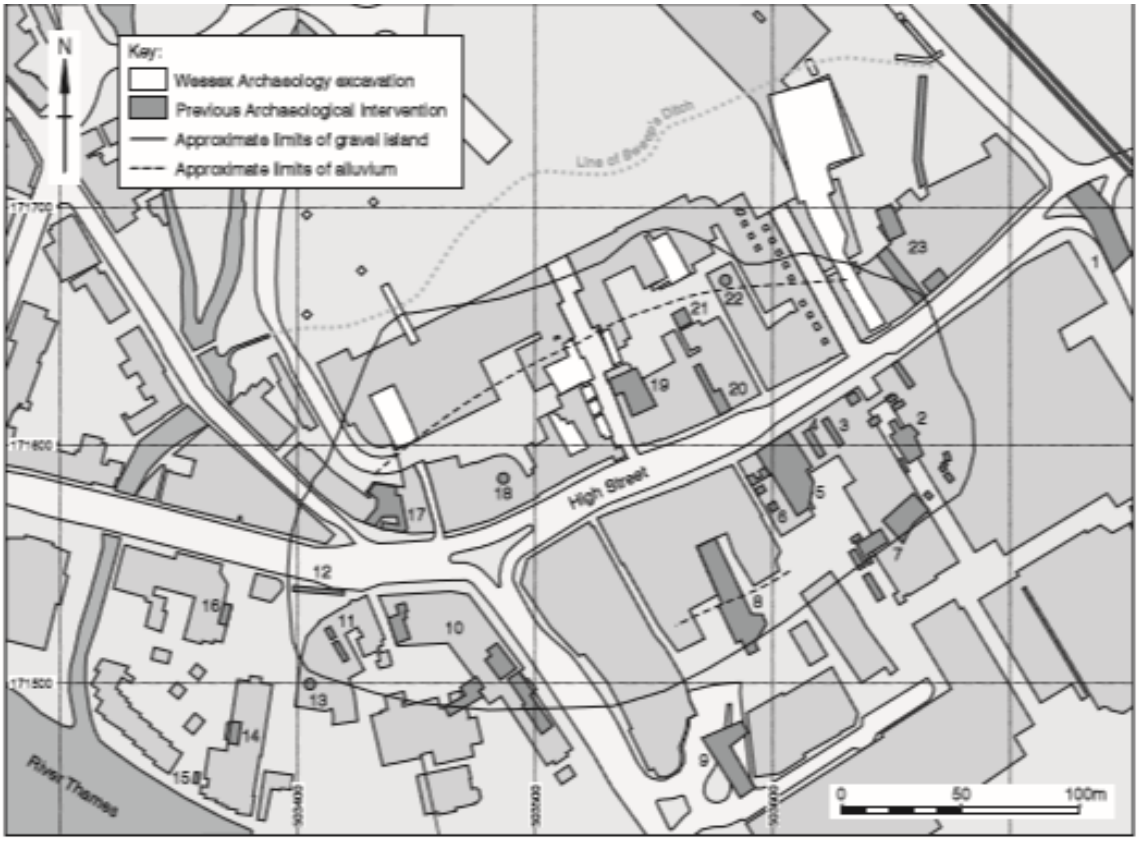


Figure 10.6 Roman Staines-upon-Thames showing archaeological interventions (numbered) and the constraint posed to urban development by river flooding (McKinley 2004, 8).

Only two significant waterside features have been identified to date. The first, a substantial cobbled area (possibly 3rd or 4th century AD) was discovered adjacent to the River Wey at

Roman Neatham (Figure 10.5) (Millett and Graham 1986, 53; Burnham and Wacher 1990, 266). It seems likely that this was laid close to the river crossing and was used for access to the water, but for what purpose is unknown. The second feature is from Roman Staines-upon-Thames where to date waterfront usage, such as might be attested by the remains of wooden quays or warehouses (Bird 2004a, 59; Jones 2010, 25) remain elusive. At the Johnson and Clarks site a possible ramp or slipway has been identified running down to the edge of an historical southern watercourse (2010, 241 *Fig.* 4.3, 247). The ramp was formed of compacted earth which Jones thought had originally been planked over (2010, 247). Running underneath was a disused gully. The first metre from the riverbank inclined steeply, to be succeeded by a shallower stretch. If this feature represents a slipway, then it may attest to the transfer of goods or people between the town and the waterways. As noted above, changes to the line of the Thames riverbank during the Roman period (Jones 2010, 25) and subsequently, may simply have resulted in features being eroded away[164]. Frequent flooding may also have made the use of permanent timber or stone waterfront structures impractical.

10.10 Masonry buildings with a possible economic function

At Roman Braughing two masonry buildings have been excavated to the centre and east of the town dating from the Early Roman period (Holmes 1954; Partridge 1977, 65-8) with further examples hinted at in aerial photographs (Burnham and Wacher 1990, 106,109), from cropmarks and ploughed-up building materials (Holmes 1954, 98; Partridge 1975, Fig.3; 1977, *Fig*.46, pp 146-9). Apart from the possible market building (noted above), no official or commercial function has been attributed to these buildings (Rodwell and Rowley 1975, 148), but they do suggest that the early phase of the settlement may have had an official status. None of these buildings are close to Ermine Street, where early roadside trading has been mooted, but front a road which was probably an extension of Stane Street (Rodwell and Rowley 1975, *Fig.* 3 opp. 142).

At Roman Staines-upon-Thames, evidence has been found to support a number of high status buildings. An Early Roman period building found in the north east trench of the excavation at Tilly's Lane (Jones 2010, 2) lay on an east-west axis about 40m back from the main road, CTE4, with a footprint of 11.5m by 6.5m. The building was characterised

[164] Durham has commented that there does not appear to be any evidence of commercial waterfront activity on the banks of the Thames at Oxford during the Roman period (Milne and Hobley 1981, 142), something which may be significant in respect to other settlements further down the river.

by stone wall foundations and footings, a tessellated floor of red tiles, and substantial amounts of wall plaster, some of which was painted 'ox blood' red with white lines (Anon 2000, 26). Whilst imposing, this building is more likely to have been a private residence of a wealthy individual, where personal business was conducted, than a public building.

At Roman Neatham the construction towards the end of the 2nd century AD (Mid-Roman period) of a rectangular enclosure just a few metres to the north of the crossroads and astride the Silchester-Chichester road (Millett 1975; Millett and Graham 1986) appears to have been sited with authority on the edge of the established settlement. Somewhat later, in the 3rd century AD, a large buiding was constructed in the north-east corner, possibly functioning as a *mansio* for official travellers (Graham 2006; 2009), although this should be accepted with caution (Dearne 2018, 76-9). The Silchester-Chichester route appears to have remained an important axis for official business for much of the Roman period, but from the evidence presented here there is no indication that this route was economically significant to the town.

To date, no large masonry structures[165] have been located within Roman Dorchester-on-Thames leading Henig and Booth to qualify the settlement as a small town displaying 'urban characteristics but without the substantial public buildings' (2000, 52). The same may, at present, be said of Roman Ewell (Poulton 2003, 18).

10.11 General open spaces within urban areas

It is worth considering that open spaces within urban areas may have been used for market gardening and keeping small numbers of domestic animals, the potential for which is further explored in chapters 12 and 13. Hoes would have been used to turn the soil with plants supported by sticks and temporary pens for animals. This practice would have left little in the way of archaeological remains and these small areas are often overlooked. Although they are increasingly being recognised within larger urban landscapes, examples have been noted at Roman Braughing, Ewell and Staines-upon-Thames. Observations from the 1950s described many (undated) open spaces within Roman Braughing [166] although their location towards the town 'wall' should be understood as the edge of the town, as it is now known that there was no wall. At Ewell, Pemberton has asserted that

[165] Henig and Booth (2000, 61) mention the remains of an aisled building found within Dorchester-on-Thames and dating to AD 250 but no further details are given of its location or possible function.
[166] Excavations and fieldwork at Roman Braughing: illus, maps, plans, tables, diagrs, *East Herts Archaeological Society Transactions*, 1952-4, vol XIII part II, p99

during the Mid-Roman period, the apparent decline of *Londinium* had a negative impact on the fortunes of the small town and it was obliged to become more self-supporting (2015, 35). From this premise Pemberton speculates that the loss of passing trade transformed the use of land in the town from commercial, to open space which could be turned over to the production of food. This theory, unusually, envisages Roman Ewell relying on *Londinium* for its prosperity.

No open spaces have been particularly noted within the built up area of Roman Staines-upon-Thames, but with the earliest buildings, dated to the second half of the 1st century AD, polarised to the east and west of the Town Island, Jones has suggested that the central space may have provided a source of gravel and the resulting quarry pits used for dumping rubbish (2010, 19). This area then is unlikely to have been suitable for any type of small-scale farming, but the water meadows on the outskirts of the town and locally rich soils may have performed the same function.

10.12 Summary and comment

The review of the urban morphology data from the five small towns indicates that there is little in the nature of the known urban features which attests to market centre activity. Many of the features discussed are those, such as road fronting buildings, held purely by analogy to be associated with some aspect of trading. Others, small open spaces for example, represent a broader range of urban features which might offer further insight into the economic activity of the small towns. The evidence supports relatively independent settlements not significantly involved in collecting and redistributing goods as might befit a market centre.

The dominance of roadside archaeological interventions across all five towns has led to emphasis on conjectured interaction between the occupants of roadside strip buildings and travellers and tradesmen using the roads. Less archaeological attention has been directed to areas of the towns away from the roads where land use is less obvious: the locations of timber buildings, designated open spaces or farmed land. The potential for interpretation is therefore limited by the scope of the data available.

The morphology of the small towns was not static over time. The towns apparently contracted during the Mid-Roman period (as has been observed elsewhere in Britain) although there is less evidence for this at Roman Neatham. A general trend can be seen in

changes to the use of urban space with an increase in gravelled yard-type areas adjacent to buildings and the use of old road surfaces for building extensions: a sense of filling in and filling out space within the settlements. In the Late Roman period, town buildings continued to occupy the same plots of land but did not necessarily front the main roads as in the Early Roman period. None of the small towns gained 'civic' features or public amenities in the Roman period (on the evidence to date) which might, if present, indicate increased wealth, investment or status. In large Roman towns with official roles and other purposes, by contrast, the presence of such features came from economic investment or public munificence. This marked difference perhaps thereby exemplifies a 'native form of urbanism' manifest in small towns (Millett 1995, 33) as distinct from a classical Roman town.

Small towns and rural hinterland sites

11.1 Introduction

This chapter reviews the data for the distribution of rural hinterland sites around each of the five case study small towns (within a radius of 10 km) for the purpose of investigating potential urban-rural interaction. Particular attention is given to the agricultural potential of the land and fluctuations in settlement activity over the Roman period, to establish the extent to which small towns played any central marketing role in the rural economy.

11.2 Soils and agricultural land

Although it is probable that the climate in Britain became wetter over the Roman period, the potential of local soils for agriculture would not in terms of fundamental characteristics, have differed much from that represented by the modern soil surveys used in this present research. Consideration of the range of soils in each case study is of value in regard to the agricultural potential of town and country sites, ahead of the reviews of animal bone data (Chapter 12) and cereal data (Chapter 13). The aim is to assess whether the small towns were self-supporting or reliant on the countryside for food, and whether surplus produce was marketed through the towns.

No open access soil maps were available for research projects such as this one (including any in a format suitable for use as a GIS background layer), so this study has relied on the data available on-line from Cranfield University (LandIS) which is for public use[167]. Whilst underlying bedrock and predominant soil types will have remained constant over the last 2000 years, some changes will have occurred over the intervening years. These will have been the result of natural changes in the water system in terms of flooding and alluvial deposition, as well as natural weathering and erosion. Further changes will have occurred as a result of sustained cultivation over centuries leading to thicker topsoils with a generally higher organic content than in Roman times. Fertiliser introductions, man-made pollution and modern farming techniques will likewise have resulted in alteration.

[167] Under public access license (Database Licence Terms and Conditions): Soils Data © Cranfield University (NSRI) and for the Controller of HMSO 2017.

11.3 Roman Braughing

11.3.1 Hinterland sites around Roman Braughing

The rural sites listed include a range of identified features from road metalling sections to kiln sites, not only those directly involved in farming (Appendix C: Table C.1) [168]. All the sites are within 2 km of a major road or river. The larger settlements of Buntingford, Hertford and Ware have access to both. Few rural sites however, are known to have been directly connected to these main arteries by minor roads or tracks. The only exceptions to this are the Bowls Dell quarry site, Mentley villa and the Bromley Hall area of pottery production which was connected by a spur road. The three maps below (Figures 11.1, 11.2 and 11.3) illustrate the rural sites recorded as active within each of the Roman periods for temporal comparison.

[168] The Roman Rural Settlement Project locates 9 sites within 10 km of Braughing, of which 5 are included as part of the urban settlement area for the purpose of this thesis. The remaining 4 are included here as rural settlements: Bromley Hall/Caley Wood, Plashes Farm and 2 sites located along the Wadesmill Bypass. The 6 sites at Hertford and Ware appear to be over 15 km south of Braughing, as are the 5 sites associated with Bishop's Stortford and that at Exnalls Farm. There may be some distortion at play as these distances do not always correspond to those of the OS map used in this thesis and which allowed for these sites within the 10 km radius.

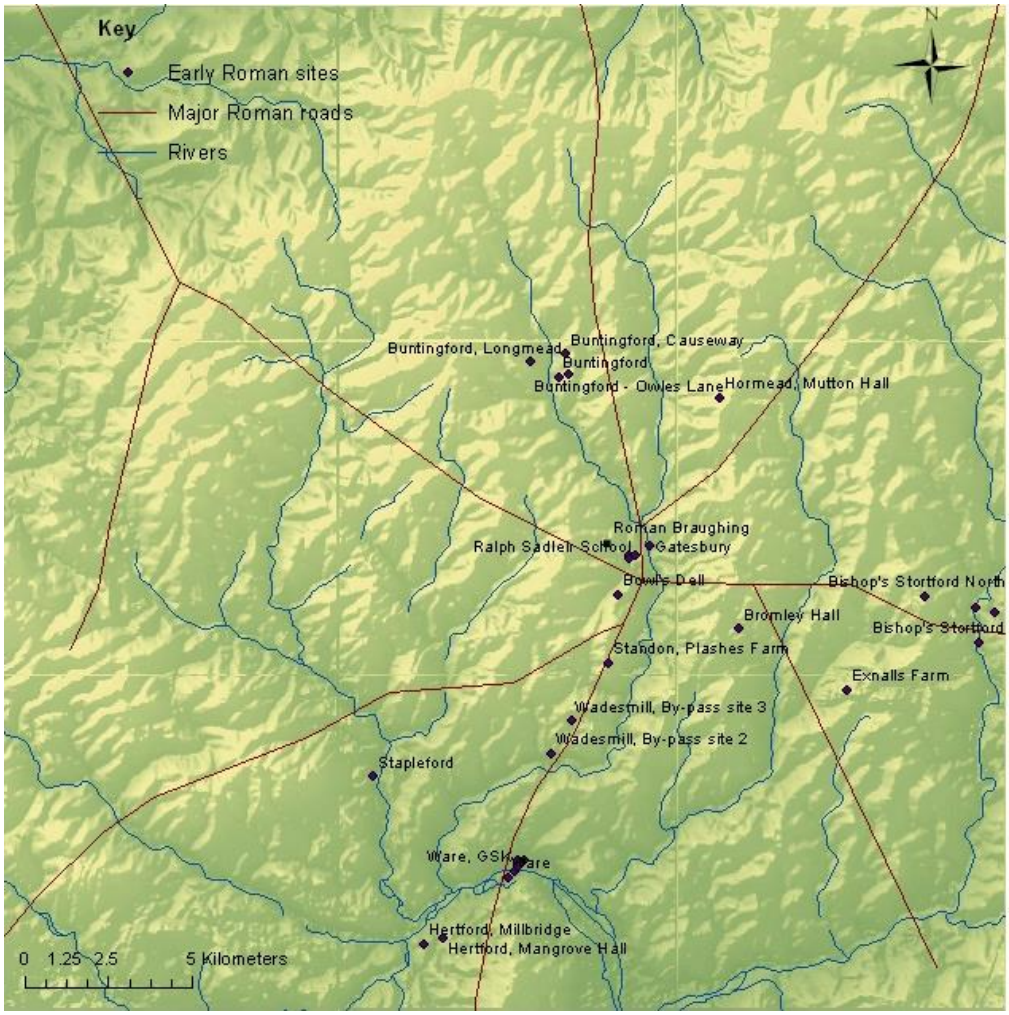


Figure 11.1 The distribution of Early Roman (AD 43-150) rural sites around Braughing (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

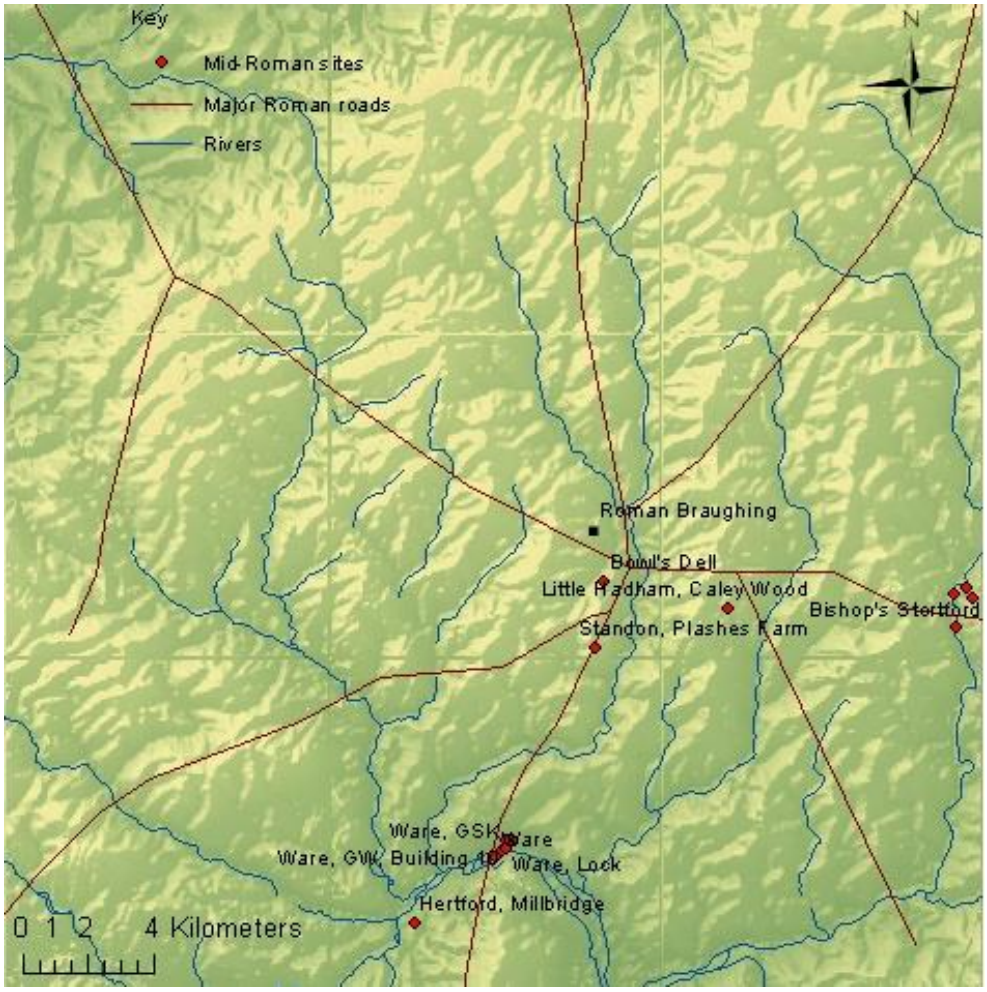


Figure 11.2 The distribution of Mid-Roman (AD 150-250) rural sites around Braughing (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

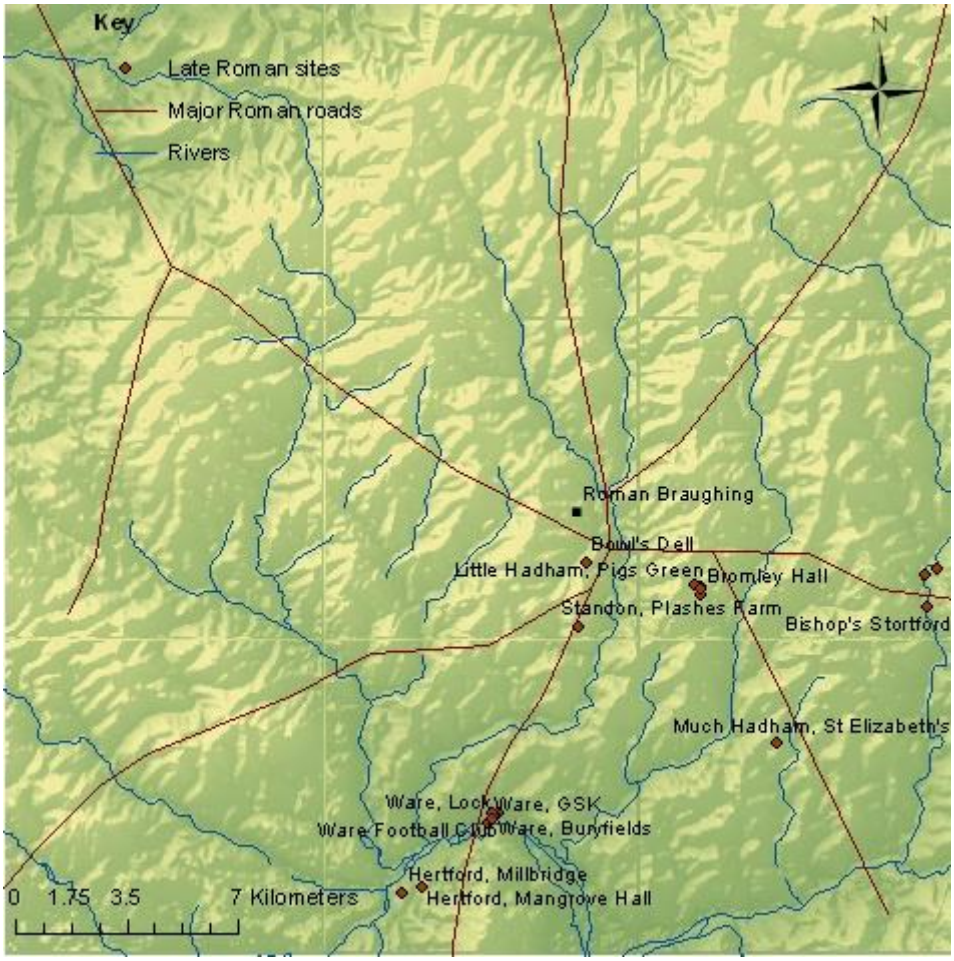


Figure 11.3 The distribution of Late Roman (AD 250-410) rural sites around Braughing (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

Of the 37 rural sites included in this study, 16 (44%) were in existence in the LIA period, all but two of which continued into the Early Roman period; only four showed evidence of activity any later in the Roman period. During the Early period as many as 28 sites (77%) were active with 14 apparently newly established after the Conquest and located close either to Ermine Street or Stane Street. By the Mid-Roman period, although it is thought that Braughing continued to develop during this period, only 14 rural sites were active and these were closer to Bishop's Stortford and Ware. In contrast to the apparent decline at Braughing in the Late Roman period, the number of rural sites in use rose to 18 (by 50%). At least 6 sites were newly established and for the most part involved in pottery production. A single corridor villa site has been identified (Barr 1973) by the presence of tessellated pavements and a mosaic floor at Mentley Farm on the western edge of Roman Braughing and probably connected by a lane to Ermine Street. The evidence dates the villa building to the Late Roman period (3rd and 4th centuries), but an earlier building may have

existed on the same site (Thompson 2005, 7). Nothing is known about the role of the villa in relation to the small town or of any agricultural activity. It is apparent from this summary that the local road network acted as a greater draw in the landscape[169], particularly early in the Roman period, than did the small town: the development of the town does not run parallel to sites in the hinterland.

11.3.2 Soil profile for the area of Roman Braughing

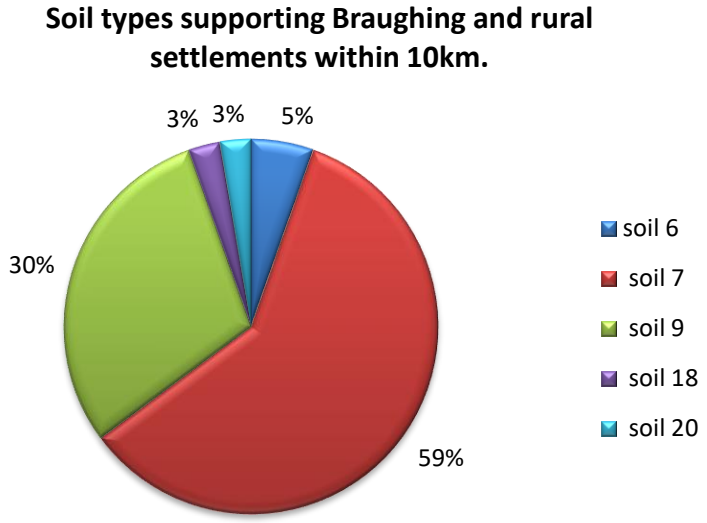


Figure 11.4 Chart showing the percentage of different soil types within 10 km of Roman Braughing.

Table 11.1 Frequency of sites by soil types for all Roman periods combined

Soil number	Fertility	Sites
6	Low	2
7	High	22
9	High	11
18	Moderate	1
20	Moderate	1

In locational terms, soil 7 (Figure 11.4) characterises two finger-like areas orientated north to south and following the local river valleys: the Rib, the Quin and the Lea (for soil map see Appendix K: Braughing soil map). One spur includes Roman Braughing and the other runs roughly parallel to the east through the Hadhams. Although this soil does not cover a

[169] Always with the proviso that greater archaeological attention has probably been paid to roadside sites.

high percentage of the landscape, being suitable for arable farming and providing rich animal pastures, it seems to have supported a high density of sites. By comparison, soil 9 (Figure 11.4) covers the broadest area, between and beyond the reach of soil 7. This soil is favourable for mixed farming, but drains less well due to the amount of clay in the soil (hence the location of the Hadham pottery industry). The villa site at Mentley Farm is on different soil to that of the nearby town, being poorly drained although able to support arable, pasture and woodland, it was not a prime agricultural site.

Comparison of the four period pie charts (Appendix J: Table J.2) for the Braughing area indicates a long-term exploitation of two particular local soil types: the high fertility soils 7 and 9. These soils were favoured at a fairly constant percentage of 55 -59 % and 25 -29 % respectively. This is, at least superficially, suggestive of consistent agricultural activity. The number of rural sites located on soils 7 and 9 (Appendix J: Table J.2) increased by about 50% from the IA period[170] (Hunn 1996) into the Early Roman period, but whilst the number of sites on soil 7 gradually dwindled back to IA levels those on soil 9 almost disappeared before resurging to previous IA levels. The Early Roman period settlement distribution corresponds closely to the limited areas of well-drained base-rich soils. This soil type is very fertile and supports both arable and pasture lands and may be preferred for mixed farming. Beyond the narrow bands of this soil, broader areas are mapped of less well-drained more clay-rich soils, but still suitable for arable farming.

During the Mid-Roman period 80% of rural activity was taking place on soil type 7, whilst active sites on soil 9 drop to 6%; there appears to have been a general fall in the number of sites active in this period (Figures 11.1-3). This transformation may have been a response to changes in demand for local agricultural products and/or changes in farming practice. This analysis recognises that a variety of soils are likely to have been farmed from individual rural settlement sites. A fairly consistent low level of activity was maintained throughout the Roman occupation on the moderately fertile (soils 18 and 20) and low fertility soil (6), presumably less affected by change (compare Hunn 1996). During the Mid- and Late Roman periods site distribution had generally dwindled to a rural presence to the south of Braughing, to the west of Bishop's Stortford and around Hertford/Ware to the south.

[170] According to Thompson (2002, 3) the settlement pattern around Braughing was characterised by scattered farmsteads at the beginning of the 1st century BC. Around 30 BC settlement seems to have been concentrated in the valley and around Wickham Hill, extending over an area of *c*.120ha (300 acres).

Table 11.2 Summary of agricultural sites (all periods) according to distance from Roman Braughing.

Place	Distance (km)	Summary
Braughing	0	Evidence of farmsteads in Roman period (none LIA)
Mentley Villa	<2	Villa/farm - less than 2km to west of town accessed by track. Evidence for Late Roman period, but probably active earlier.
Westmill	3.5	Rural site
Buntingford	5	Mainly Early Roman farming.
Wadesmill	6-7	LIA farming continued into Early Roman period
Exnalls	7-8	Farming LIA/Early Roman
Bishop's Stortford	~10	Various sites active at various Roman periods
Stapleford	9	LIA/Early Roman drove way
Youngsbury	9	Villa site. ?farming. No dates
Ware	10	Settlement with evidence of agricultural produce.

Sites with evidence potentially relating to agricultural activity with 10km of Roman Braughing (Table 11.2), apart from the villa site, all appear to be located at some distance from the small town. It is argued here that the reason for this is that the town residents themselves exploited the environs (they may or may not have owned the land), for several kilometres, to raise their own crops and animals. The evidence for this is strongest for the Early Roman period.

11.4 Roman Dorchester-on-Thames

11.4.1 Hinterland rural sites around Roman Dorchester-on-Thames

The rural sites[171] within 10 km of Roman Dorchester are tabulated (Appendix D) against potential communications/trade routes and the period of site activity. These sites vary in nature from sections of road metalling to kiln sites, to farmsteads. The three maps (Figures 11.5, 11.6 and 11.7) illustrate the distribution of these sites according to the Early, Mid- and Late Roman time periods.

[171] The Roman Rural Settlement Project locates 13 sites within 10 km of Dorchester-on-Thames: Dorchester Pottery ('Kiln site' in table), Wally Corner, Berrick Salome, Benson, Crowmarsh Gifford, Brightwell-cum-Sotwell, Wittenhams Castle Hill, Dyke Hills, Didcot (4 sites), Appleford and Appleford Sidings. Barton Court Farm and the sites at Abingdon are projected on this map beyond 10 km distance.

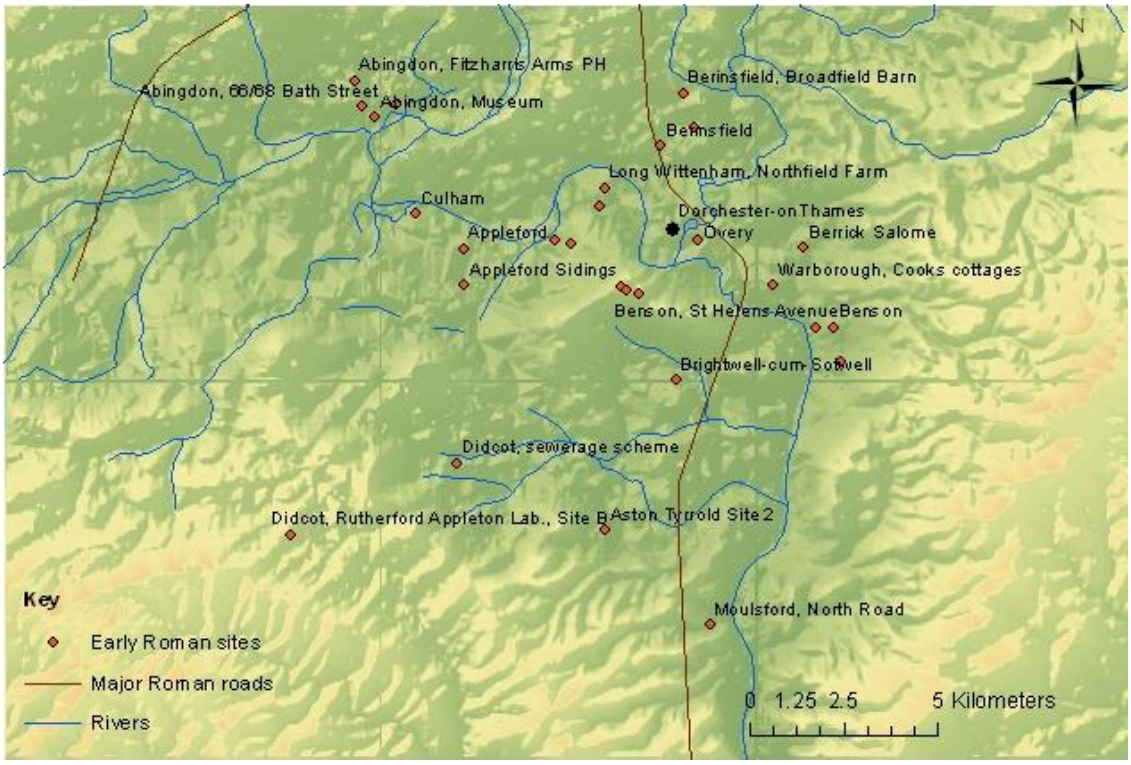


Figure 11.5 Distribution of Early Roman (AD 43 – 150) rural sites around Dorchester-on-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

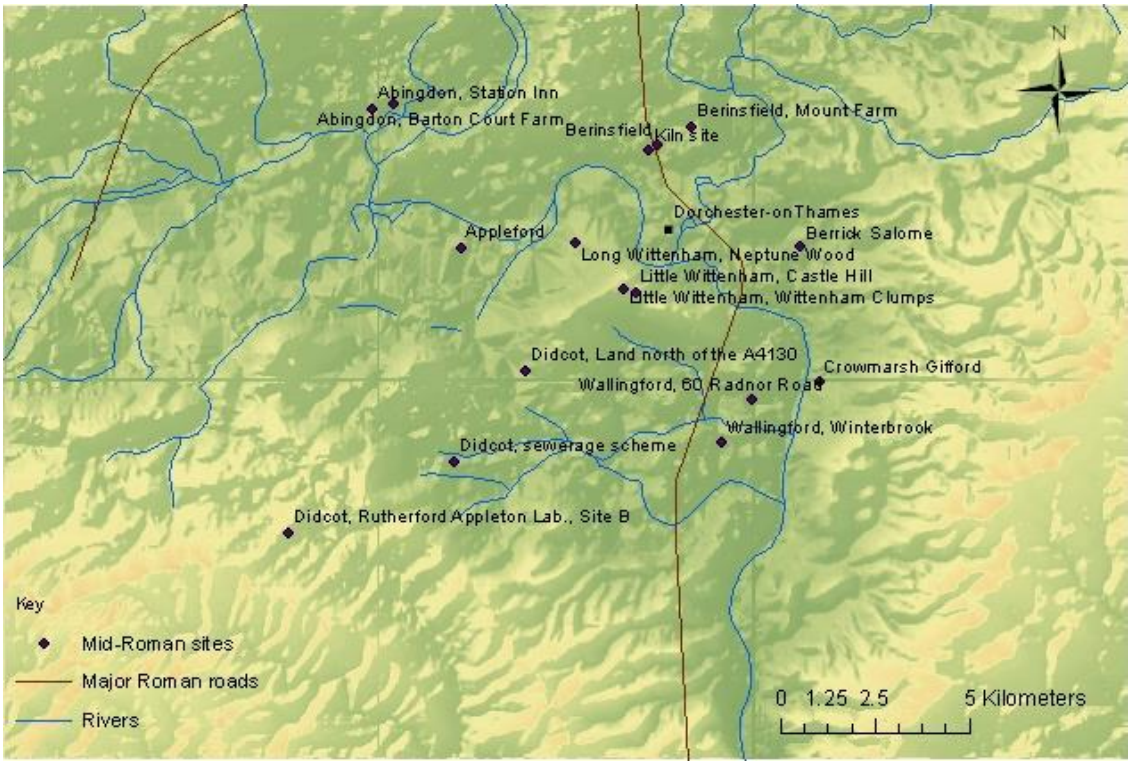


Figure 11.6 Distribution of Mid-Roman (AD 150 -250) rural sites around Dorchester-on-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

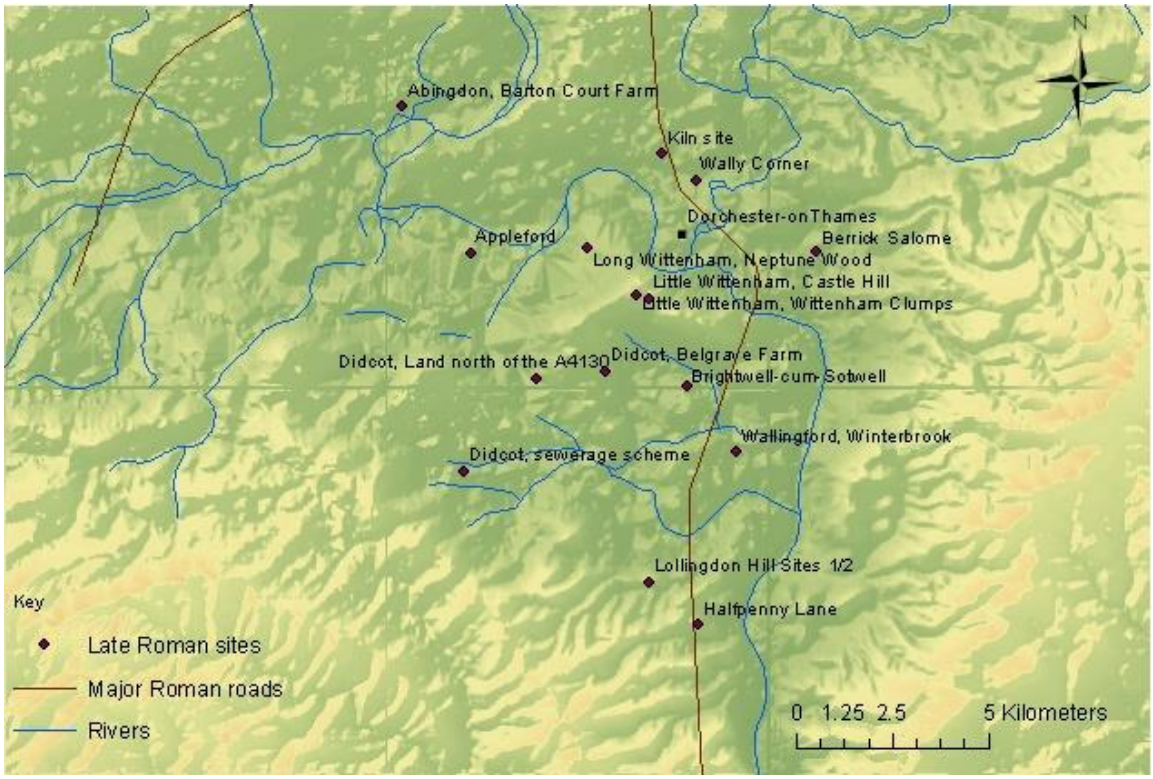


Figure 11.7 Distribution of Late Roman (AD 250 – 410) sites around Dorchester-on-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

Of the 44 rural sites (Appendix D), 39% (n= 17) revealed earlier IA activity at the time Dorchester-on-Thames was apparently founded. Of these, 15 sites continued to be active into the Early Roman period, reducing to nine in the Mid- and six in the Late Roman periods. As many as 30 sites (68%) revealed some kind of Roman feature during the Early Roman period with 13 of these apparently newly established after the Conquest. Mid-Roman period features were noted at 17 sites, three of which were pottery production sites, this at the time of significant development at Dorchester-on-Thames and the construction of 'defensive' earthworks. By the Late Roman period, when the town enhanced the defences with masonry walls, local rural sites appear to have been largely farming settlements. Only four sites (9%) were in use for the whole of the Roman period. Generally rural activity favoured the smaller river tributary valleys, rather than close proximity to the Thames River. In terms of geographical distribution, rural site activity seems to become increasingly confined to the west side of the main Thames river valley over the Roman period, perhaps due to natural flood events but the actual impelling factor(s) is unknown.

The presence of Roman villa estates is not well attested in the hinterland of Dorchester-on-Thames. Although potential evidence has been mooted for the Sutton Courtenay area in

respect of a villa site, little evidence of LIA or Roman activity from any period has actually been recorded here[172]. Similarly, nearby at Drop Short[173], a LIA farmstead is thought to have continued into the Roman period with the addition of a small villa building, but a desktop assessment failed to confirm this description (Darch 2011).

Not included in Figures (11.5-7) are the trackways supposedly linking rural settlements to the main routes serving Dorchester-on-Thames, Silchester and Alchester mentioned by Lambrick (2010, 104). The extent and purpose of such a network is uncertain, but potentially may have been used for the distribution of goods locally.

11.4.2 Soil profile for the area of Roman Dorchester-on-Thames

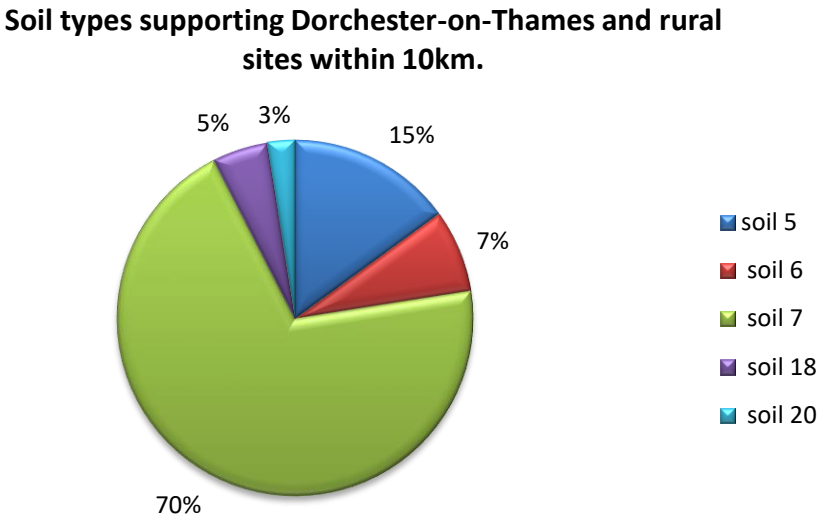


Figure 11.8 Chart showing percentage of soil types within 10km of Dorchester-on-Thames

Table 11.3 Frequency of sites by soil type for all Roman periods combined

Soil number	Fertility	Sites
5	High	6
6	Low	3
7	High	28
18	Moderate	2
20	Moderate	1

[172]This site is marked as a villa on the Roman Rural Settlement Project interactive map, derived from http://www.wessexarch.co.uk/system/files/71505_TT%20Sutton%20Courtenay.pdf [Accessed 6.6.2016]
[173] Dropshort is listed on the Antonine Itinerary as *Magiovinto* (Rivet and Jackson 1970, 42, 49).

The distribution of rural sites closely adheres to well-drained base-rich soils (Appendix K: Dorchester-on-Thames soil map**),** a pattern which continued for the whole Roman period. Soil 7 supported the highest number of sites in the Dorchester-on-Thames area (Figure 11.8): 70% (n=28) of the rural sites. Large swathes of land on both sides of the Thames River here are characterised by this type of soil and in addition to agriculture the soil environment supports deciduous woodland (a source of fuel and raw materials for craft working). Soil 5, also fertile, is found in two main areas to the south of the town, close to the river but adjacent to the higher chalk down land, this supported only 15% (n=6) of the sites. The remaining moderate and low fertility soils were exploited by a modest, but constant, number of rural sites from the IA through to the Late Roman period (Appendix J: Table J.3).

The percentage of rural sites utilising each of the local soil types around Dorchester-on-Thames (Figure 11.8) remained almost unchanged from the IA into the Early Roman period. During the Mid-Roman period however, there is a marked reduction in the number of rural sites apparently active on soil 7, from 21 to 11, followed by a further small reduction of 2 in the Late Roman period. This may indicate changes in local agricultural production.

Table 11.4 Summary of agricultural sites (all periods) according to distance from Roman Dorchester-on-Thames.

Place	**Distance (km)**	**Summary**
Dorchester-on-Thames	0	None recorded
Berinsfield	1.5	Pre-Roman/Early mainly - evidence of the use of complex enclosures and ponds for farming animals
Lollingdon	1.5	Evidence of animal paddocks being used over unspecified period
Long Wittenham	1.5	Early Roman farmstead, possibly continuing from earlier pre-Roman activity Area of farming activity with field systems, tracks and extensive enclosures, mainly in use Mid-/Late Roman
Warborough	1.5	Field system with rectilinear ditched enclosures, double-ditched trackway dated to Early Roman period
Little Wittenham	2.5	Early Roman period farmstead/villa with enclosure, track and fields.
Benson	3	Early Roman field system and drove way, possibly continuing from LIA activity
Berrick Salome	3	Rural site enduring LIA to Late Roman – tentative farming evidence pertains to yard and track.
Brightwell-cum-Sotwell	3	Evidence of enclosures and use of paddocks for all periods except Mid-Roman
Wally Corner	3	Stock rearing evidence in terms of enclosures, waterholes, field systems Mid-/Late Roman
Wallingford area	3-5	Possible Mid-/Late Roman farming activity. Late farmstead with corn drier.
Appleford area	5	Whole period use of tracks, field system, paddocks

Crowmarsh Gifford	5	Fields and farmed land evidence for LIA, Mid-Roman only
Didcot area	6 - 9	Ladder type stock enclosures in use Mid-/Late Roman Small 3rd century villa with 3 differently shaped corn driers + 2 T-shaped.
Abingdon area	6.5 - 7	Pre-Roman farming in area. Late period farmhouse/villa with paddock, enclosures developed after earlier abandonment.

Evidence for Early Roman agriculture, probably focused on raising animals, has been recorded close to the site of the small town (within 2km), at a time when the settlement is thought to have been rudimentary. This activity apparently diminishes into the Mid-/Late Roman period when the town is at its most developed. This shift could indicate a change of land use in the environs of the growing town, perhaps land was increasingly given over to arable and market gardening. This would leave very little evidence in the archaeological record in terms of features. In contrast, further away from the town, there is an increase in evidence for cattle production towards the Late Roman period, perhaps supplying increased demand for meat elsewhere.

11.5 Roman Ewell

11.5.1 Hinterland rural sites around Roman Ewell

The rural hinterland sites[174] of Roman Ewell (Appendix E) included here are identified from archaeological evidence, ranging from that denoting potential farming activity to villa sites. The distribution of all sites are mapped in Figures 11.9, 11.10 and 11.11, with respect to the Roman periods (Early, Mid- and Late) in which they have been recorded as active.

[174] The Roman Rural Settlement Project locates 7 sites within 10 km of the cluster of Roman sites identified as Ewell: Ashtead, Banstead (record shows as Walton-on-the-Hill), Burgh Heath, Reigate Road in Ewell, Queen Mary Hospital in Carlshalton, St John's Vicarage in Old Malden, Tolworth, RAF Chessington.

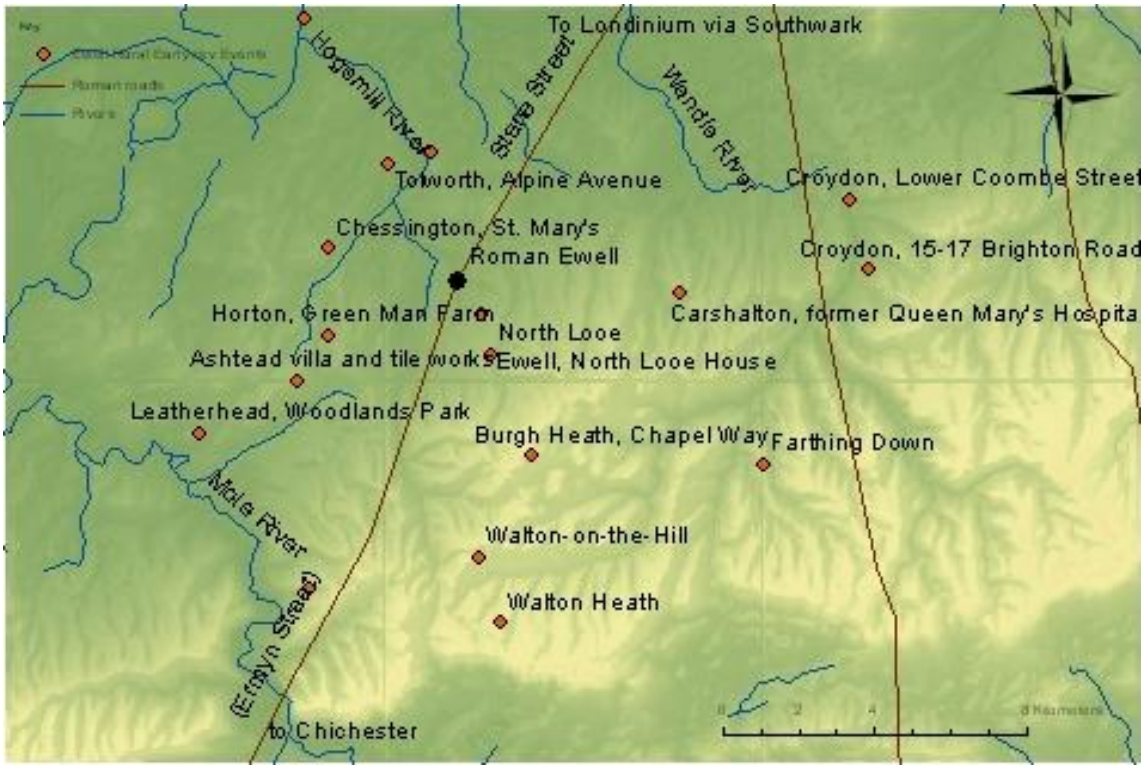


Figure 11.9 The distribution of Early Roman period (AD 43-150) rural sites around Ewell (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

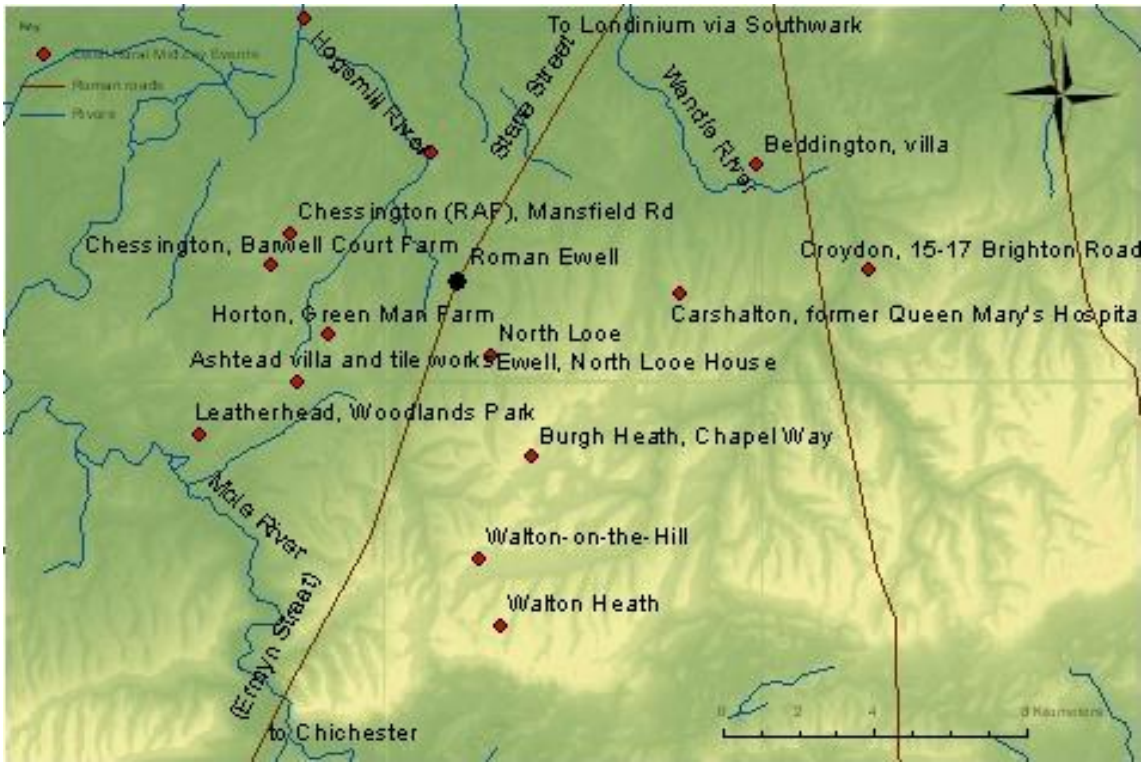


Figure 11.10 Distribution of rural sites in the area of Mid-Roman Ewell (AD 150 - 250) (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

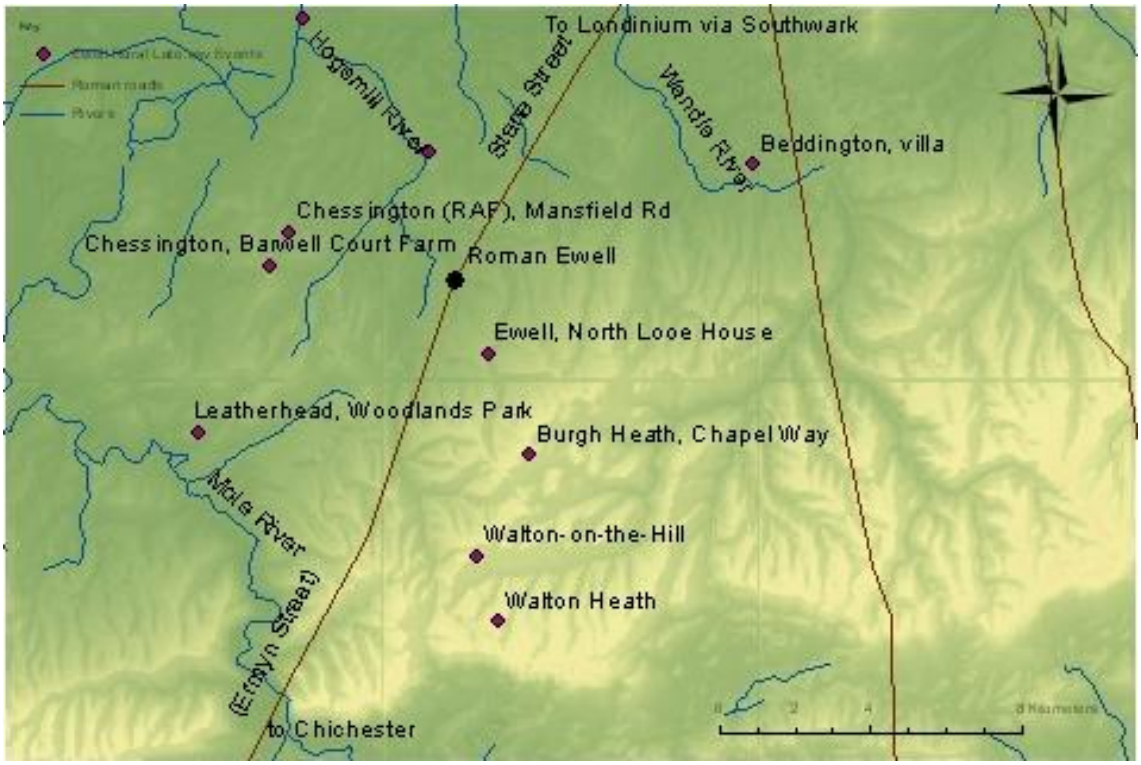


Figure 11.11 Distribution of rural sites in the area of Late Roman Ewell (AD 250-410) (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

The rural sites around Ewell known to have been active in the LIA were primarily located close to the tributaries of the Thames River, presumably for communication and access to natural resources; the Roman town was established in an active LIA location. Early Roman Ewell has been described as being 'surrounded by a number of farmsteads' (Pemberton 1973, 86). Of the 14 established sites (Figure 11.9), all are accredited an agricultural function (as might be expected): eleven of these transitioned from the LIA into the Early Roman period. The sites at Burgh Heath, Kington-upon-Thames and Lower Coombe appear to have been newly established during the Early period, as were the field system at Farthing Down and kiln site at Horton. The nature of any relationship between the sites is as yet unknown (*ibid*) although earlier established communications routes via tributary valleys and trackways across the North Downs are likely to have continued in use.

Of the 18 Early Roman rural sites, two thirds continued in use during the Mid-Roman period (Figure 11.10), followed by a loss of one into the Late Roman period (Figure 11.11). At Chessington there is evidence of two new sites being founded in the 2nd century AD. These figures suggest that, although the small town apparently began to decline

towards the end of the Mid-Roman period, the rural area around Ewell continued to be inhabited and farmed, albeit less densely settled in terms of the spread of site locations.

There is evidence for a smaller number of rural sites in the Late Roman period, 10, continuing in use from the Mid-Roman period. No new sites were established. Apart from the site at North Looe, they were all situated some distance from Ewell, at least 4-5 km away. This suggests that the locations were more important than proximity to the small town, despite the town's apparent revival during this time. The small town and the rural settlements in the hinterland were not closely linked: changes in the fortunes of Ewell were not shared by the rural sites.

A little more may be said about villa sites, of which four[175] have been identified within 10 km of Ewell (Figures 11.9, 11.10, 11.11): Ashtead [Common] (Bird 2013, 2014), Walton-on-the-Hill[176] (Lowther 1950; Bird 2004, 101), Walton Heath (Bird 2004, 101) and Beddington (Adkins and Adkins 1982; Howell 2005). They are of different periods: Ashtead dating from AD 70/80 (Bird 2014), Walton-on-the-Hill to c. AD 100 (Bird 2004), Beddington to the late 2nd century (Adkins and Adkins 1982; Howell 2005); the date of the putative Walton Heath villa is uncertain (Bird 2004). Although Walton-on-the-Hill was not occupied continuously, both this villa complex and that at Beddington, were engaged in agricultural activity for much of the Roman period. That at Ashtead was concerned with the manufacture of box flue tiles. Evidence from these villa estates does not suggest that they achieved great wealth (Bird 2004, 87) which may indicate that they were not profiting from producing tiles or agricultural products to satisfy large scale consumer demand outside the lcoal area, Southwark or *Londinium* for example.

[175] Bird notes that there may be another villa in the Walton area, although not enough is known to be sure (2004, 101).
[176] Identified as Banstead villa on the Roman Rural Settlement Project map?

11.5.2 Soil profile for the area of Roman Ewell

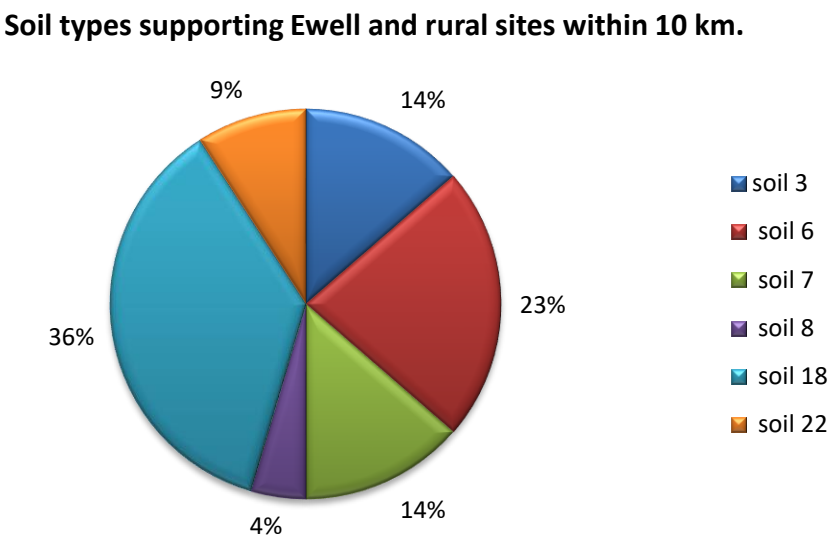


Figure 11.12 Chart showing the percentage of soil types within 10km of Ewell

Table 11.5 Frequency of sites by soil type for all Roman periods combined

Soil number	Fertility	Sites
3	Moderate	3
6	Low	5
7	High	3
8	Moderate	1
18	Moderate	8
22	Moderate	2

A wide variety of soils was available to the occupants of the Thames River Valley near Ewell (Figure 11.12), although the built-up nature of the suburban land around modern Ewell prevents comprehensive soil data being available for this area (Appendix K: Ewell Soil Map). The highly fertile Soil 7 dominates the northerly aspect of the dip slope of the downland here, although only 14% (n=3) of IA-Roman sites lay on this belt of land (Appendix J: Table J.4). The more moderately fertile Soil 18 being apparently favoured (Figure 11.12), perhaps for its wet pasture land, soil most suitable for grazing cattle, oxen or horses reared for meat, dairy or traction and for growing the fodder crops.

The relative proportions of the soil types exploited around Ewell seem to have remained fairly constant from the IA period through to the Late Roman period (Appendix J: Table

J.4), although there are notably fewer sites occupied overall during the latter period. Soil 6, with low fertility, supported a small but significant number of sites during the Early and Mid-Roman periods possibly making use of the high pasture land for grazing sheep. Most notably, Roman Ewell and the surrounding area seems not to have experienced the reduction in the number of active rural sites in the Mid-Roman period recorded elsewhere.

Table 11.6 Summary of agricultural sites for (all periods) listed according to distance from Roman Ewell.

Place	**Distance (km)**	**Summary**
Ewell	0 - 2	Pre-conquest farming activity. Early period farmstead development with agricultural activity continuing into the Mid-/Late Roman periods.
Chessington	5	Mid-/Late agricultural activity (crops)
Tolworth	5	LIA farming activity ceased AD 50.
Carlshalton	6	Pre-Roman activity, followed by farmstead AD 50 – 250 (Early-Mid-Roman).
Farthing Down	8	Early Roman field and track system
Leatherhead Downs	8.5	Pre- and Early Roman field system
Croydon area	10	Early and Mid-Roman agricultural activity

The residents of Early Roman Ewell had the opportunity to exploit the land close to the settlement for farming alongside nearby rural sites (Table 11.6). There is no evidence for an increase or growth in rural sites in response to burgeoning consumer demand from the town. Activity in the small town, minor rural sites and villa estates was apparently independent.

11.6 Roman Neatham

11.6.1 Hinterland sites around Roman Neatham

Rural sites[177] recorded within 10 km distance of Roman Neatham (Appendix F**)** include a number of kiln sites (Alice Holt pottery industry) as well as sites involved in agriculture and a number of villa sites. Three maps (Figures 11.13, 11.14 and 11.15) summarise the distribution pattern of rural settlements for each of the designated time periods: Early, Mid- and Late Roman.

[177] The Roman Rural Settlement Project locates 10 sites within 10 km of Neatham. The villa sites at Glade Farm, Crondall, Neatham Manor and Binsted Wyke are included in the villa section of this chapter. Of the remaining 6 sites, Kemp's Yard (Alton) and Wheatley are both listed as burial sites, whilst Osbourne Farm (Kingsley) and Frith End are both kiln sites as is the cluster of sites at Alice Holt. Only Holybourne Down and 89 High Street (Alton) are farming or occupation sites.

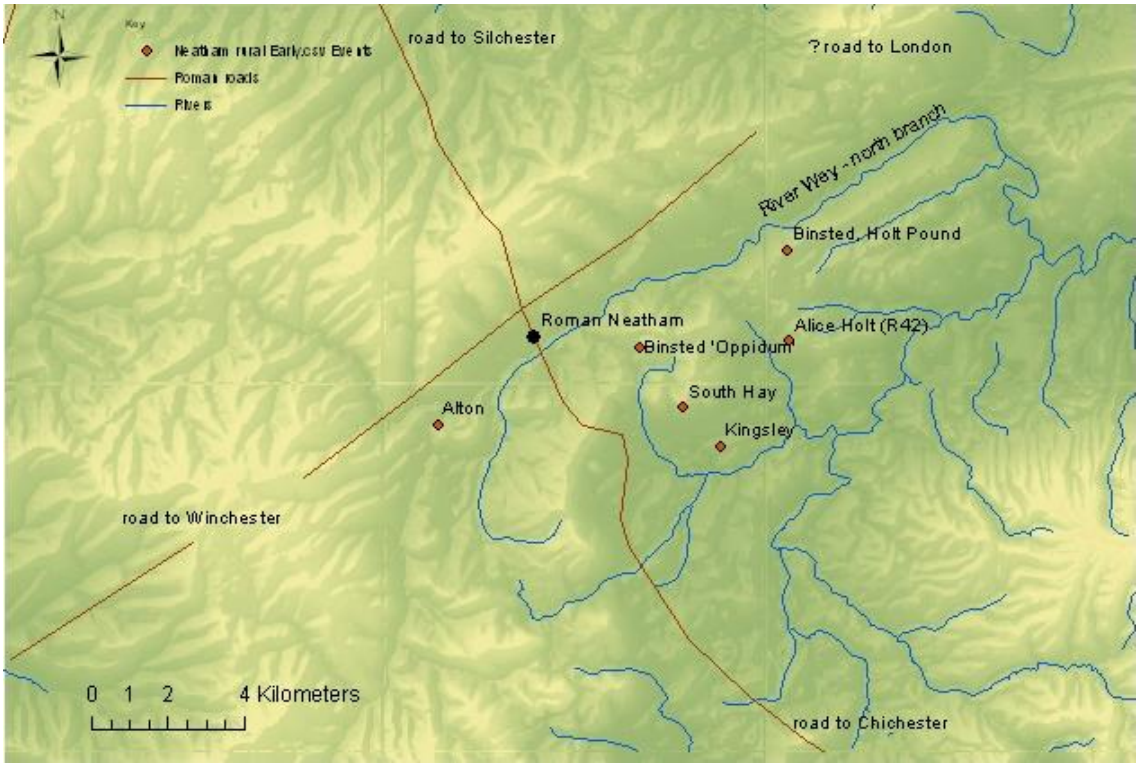


Figure 11.13 Distribution of Early Roman period (AD 43 – 150) rural sites in the Neatham area. (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

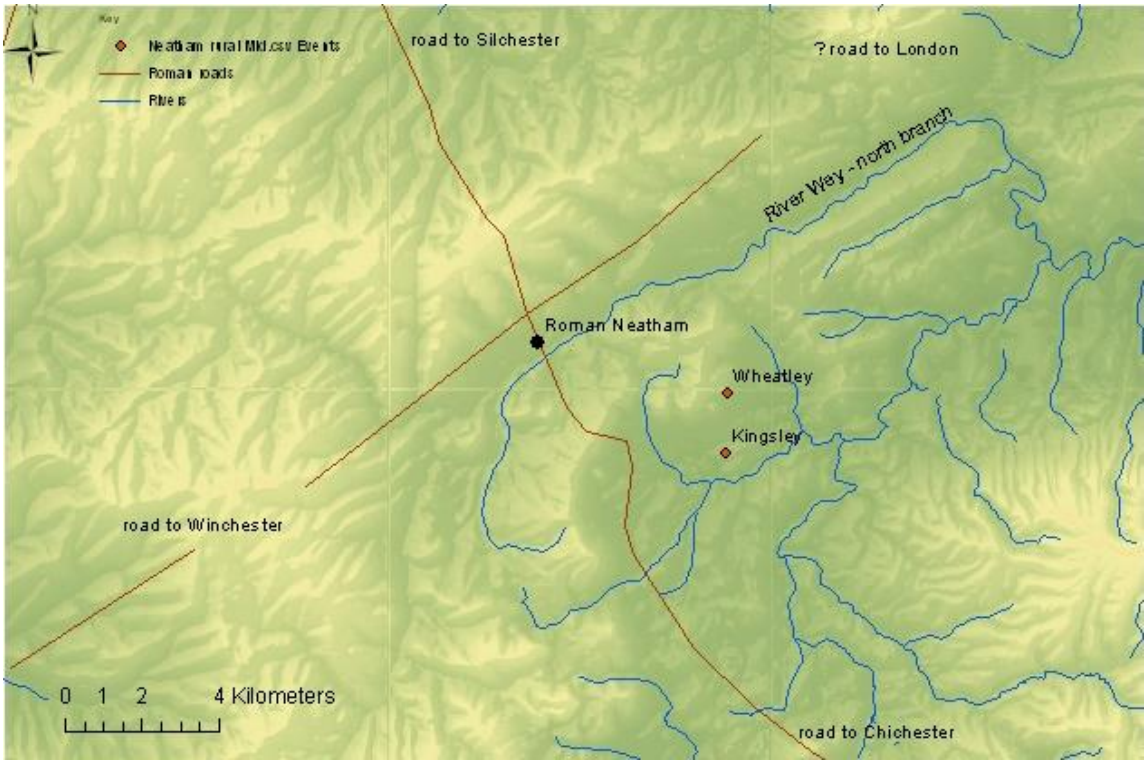


Figure 11.14 Rural sites active in the Neatham area in the Mid-Roman period (AD 150 -250**)** (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

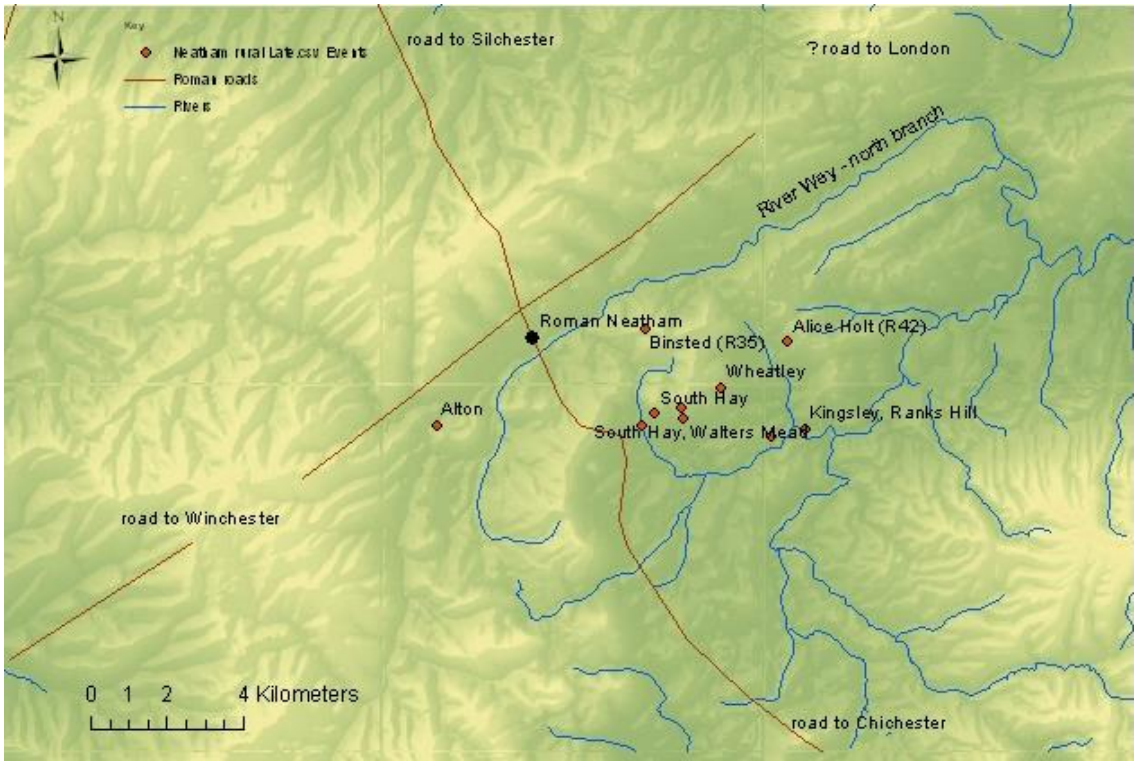


Figure 11.15 Distribution of rural sites during the Late Roman period (AD 250 – 410) in the area of Neatham (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

The distribution of Early Roman rural sites (Figure 11.13) appears to have been confined to the south and east of Neatham, close to the River Wey and its tributaries. However, this concentration may simply reflect the archaeological attention this area has received in light of the Alice Holt pottery industry, rather than the entirety of occupation during this period. Nevertheless, sites at Binsted (Lyne 2012, 25), Kingsley (Lyne 2012), South Hay (Bray 1998) and Holybourne Down (north-west of Neatham - not shown on the map) are thought to have been farmed continuously from the LIA into the Roman period (Millett 1981)[178]. Only the Alice Holt area appears to have been newly occupied after the Roman Conquest.

Active rural sites during the Mid-Roman period are poorly represented (Figure 11.14). At Wheatley there is possible evidence of the reorganisation, in the early 3rd century, of the existing rural settlement (Lyne 2012). Other than this, only the site at Kingsley is recorded as active during the Mid-Roman period – even this is uncertain and reliant on pottery finds dated after the Early Roman period (Lyne 2012). Roman Neatham nonetheless continued to develop during the Mid-Roman period (Burnham and Wacher 1990, 265); it is possible

[178] A further possible IA settlement has been excavated at Grooms Farm to the south of this general area, for which occupation evidence suggests this site also continued in use from the IA well into the Roman period (Young et al. 2008, 272).

that rural sites were abandoned in favour of taking up residence in the new town. New residents would have had access to land suitable for farming close to the town. The continued development of the small town through the Mid-Roman period goes against a generally recognised trend towards settlement decline, observed elsewhere in Britain, during the 3rd century AD. However, this 'decline' is perhaps symptomatic of a general challenge faced by archaeologists in appropriating features and finds to the early third century AD (Willis 2016, *pers. comm.*), which for some reason may have been less of an issue in investigating Neatham.

Roman Neatham continued to develop into the Late Roman period, with the greatest concentration of rural sites still located to the south and east of the town (Figure 11.15). The latter area being that associated with the scattered kiln sites of the Alice Holt (AH/Surrey to AH/F) pottery industry (Lowther 1939; Millett 1979; Lyne and Jefferies 1979; Lyne 2012), which also reached its height in this period, and has consequently receiving focussed archaeological attention. To the south-west of the town, occupation extended along the roadside (present day Alton), although it is unclear whether a separate settlement developed here. All the sites active in the Late Roman period appear to have been occupied at an earlier period, but it cannot be said for certain that they were occupied continuously. This trend does however suggest a level of sustainability in terms of agriculturally productive land in this area during the Roman period.

Just beyond the geographical scope of this study several Roman rural sites have been located in the Basingstoke area (Brighton Hill (Fasham and Keevil 1995), Danebury Road (Howell and Durden 2005), Kennel Farm (Parry 2002), Ruckstalls Hill (Oliver and Applin 1979) and Viables 2 (Vaughan 1999). These sites lie on an area of Upper Chalk, drained by the River Loddon (into the Thames Valley)[179], between the Chichester-Silchester road and the Winchester-Silchester Roman road. This cluster of rural sites was active during the IA, Early and Late Roman periods and potentially would have been in a better position to supply consumers at Silchester.

[179] Pages 5-6 in https://www.basingstoke.gov.uk/content/page/27451/2%20Landscape%20Assessment%20-%20A%20Landscape%20Overview.pdf

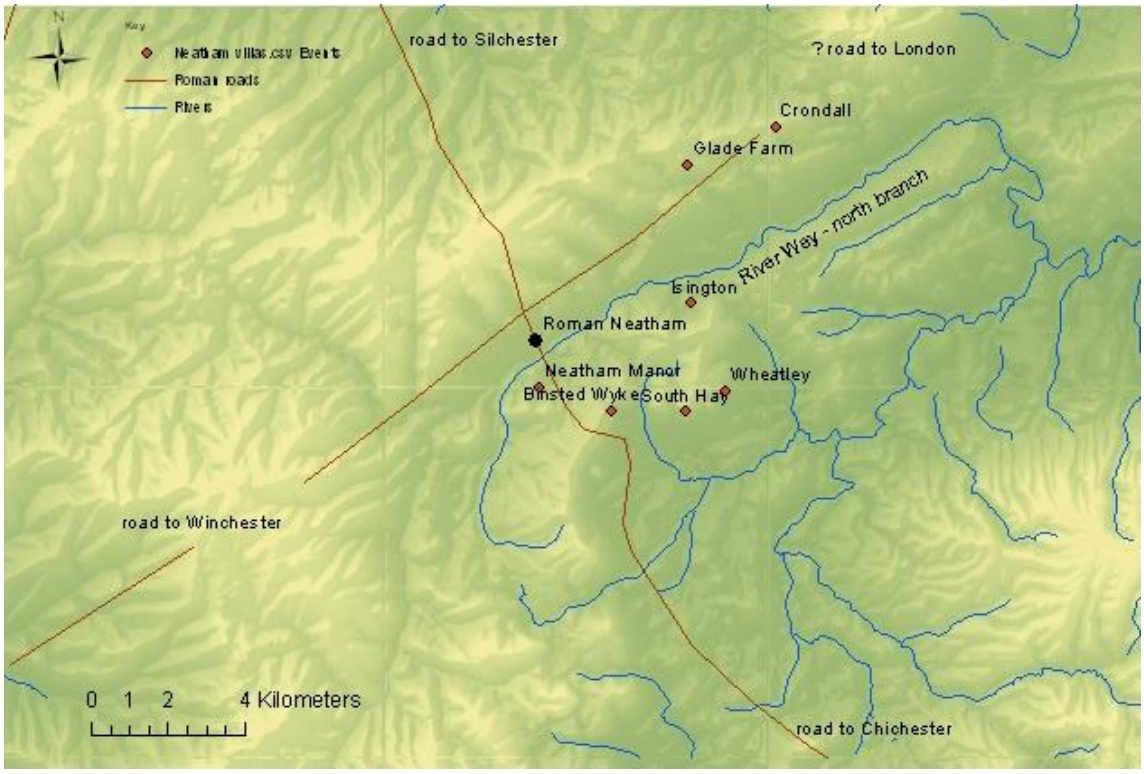


Figure 11.16 Villa sites within 10 km of Roman Neatham (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

Millett and Graham have alluded to a concentration of villa sites near to Roman Neatham reminiscent of the pattern associated with urban centres (1986, 156). The villas (Figure 11.16) are sited at intervals on the raised slopes of the Wey River valley, they comprise: undated Neatham Manor (Graham 1991); Binsted Wyke villa estate[180] spanning the whole Roman period; Wheatley villa (Lyne 2012, 28); Crondall[181] ; undated Glade Farm villa (Graham 1983, 67); Isington corridor villa (Lyne 2012, 32). There seems no reason to associate these villas any more closely with the small town (Hodder and Millett 1980, 71) than the Alice Holt pottery industry, although Millett and Graham (*ibid*) have suggested wealthy out-of-town residences, although it is doubtful whether Neatham was sufficiently urbanised to merit this removal. However, if these villa estates were extensively involved in agriculture this may have had an impact on the amount of land available to the residents of Neatham for farming.

[180] Sited within 1 km of the Chichester-Silchester road and 2.5km from Neatham, the estate is thought to have been run by an overseer during the Mid-Roman period and as a latifundia incorporating a vineyard during the Late Roman period (Lyne 2012, 18).
[181] Unexcavated, undated villa with tessellated pavement which lay within 1 km of the Winchester-London route and 4 km from Neatham http://documents.hants.gov.uk/landscape/historic-settlement/CrondallHistoricRuralSettlementpublication.pdf (pp 48-9)[Accessed 19.7.2016]

11.6.2 Soil profile for area of Roman Neatham

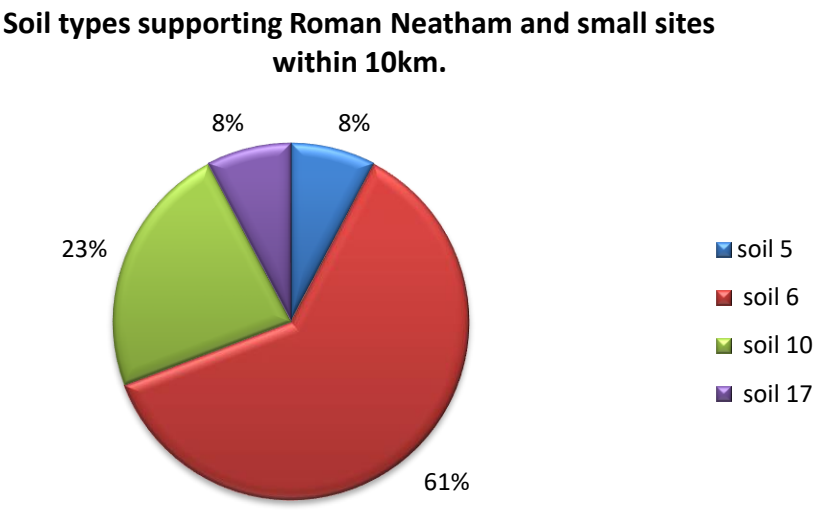


Figure 11.17 Chart to show the percentage of soil types within 10km of Neatham

Table 11.7 Frequency of sites by soil type for all Roman periods combined

Soil number	Fertility	Sites
5	Moderate	1
6	Low	8
10	Low	3
17	Low	1

In the Neatham area the most significantly exploited soil is soil 6 (Figure 11.17 and Table 11.7), of which a band runs along the valley of the River Wey, in tongues on slightly higher ground to the north-west and a further broad band to the south-east of the small town (Appendix K: Neatham soil map). This soil supports vegetation suitable for animal grazing; it will also support arable farming where conditions are favourable. A modest number of sites were located on soil 10, found along finger-shaped areas of land to the south-east of Neatham: the low fertility and sandy texture of this soil is thought to be particularly suitable for all-year round crops of root vegetables. It would appear that the distribution of rural sites here corresponds most closely to the bands of well-drained loamy lime-rich soils available.

Whilst the transition from IA to Early Roman period is characterised by a slight rise in the number of sites recorded, the main change over time is the reduction in active sites

recorded during the Mid-Roman period, leaving only two remaining on soil 6 and one on soil 10 (Appendix J: Table J.5). This trend is reversed in the Late Roman period when a marked increase in sites, to seven, is shown for soil 6, although the figures for the other soil types remain low. This new focus may reflect an increase in demand for arable and pasture close to the built up areas of Roman Neatham and Alton further to the south.

Table 11.8 Summary of agricultural sites (all periods) according to distance from Roman Neatham.

Place	**Distance (km)**	**Summary**
Neatham	0	No agricultural evidence
Binsted	3	Pre-Roman field system with manured fields in use during Early Roman period.
Holybourne Down	3	Evidence of pre-Roman and Early Roman farming activity
South Hay area	4	Pre- and Early Roman occupation of area, but certain evidence of arable land use and stock rearing relates only to the Late period.
Kingsley area	5 - 7	Pre-Roman uncertain evidence of livestock management, possibly into the Early Roman period. Late Roman 4th century farmstead
Wheatley	5	Evidence of arable farming (potentially mixed farming) during the Mid-Roman period.
Alice Holt: High Plateau area	6	Early and Late Roman farmsteads.

The meagre evidence for agricultural sites around Neatham does little to inform as regards the town's access to food and animal products in the Roman period. Only a slight trend is discerned towards a coalescence of practice into mixed farming activity at a few rural sites (farmsteads/villas) in the Late Roman period.

11.7 Roman Staines-upon-Thames

11.7.1 Hinterland sites around Roman Staines-upon-Thames

The rural sites[182] tabulated from the hinterland of Roman Staines-upon-Thames (Appendix G) are largely recognised farming settlements. The maps (Figures 11.18, 11.19, 11.20) show the distribution patterns of sites active in each of periods, Early Roman, Mid-Roman and Late Roman.

[182] The Roman Rural Settlement Project locates 18 sites within 10 km of Staines-upon-Thames; the sites at Harlington appear slightly beyond this radius, contra to the maps used in this study.

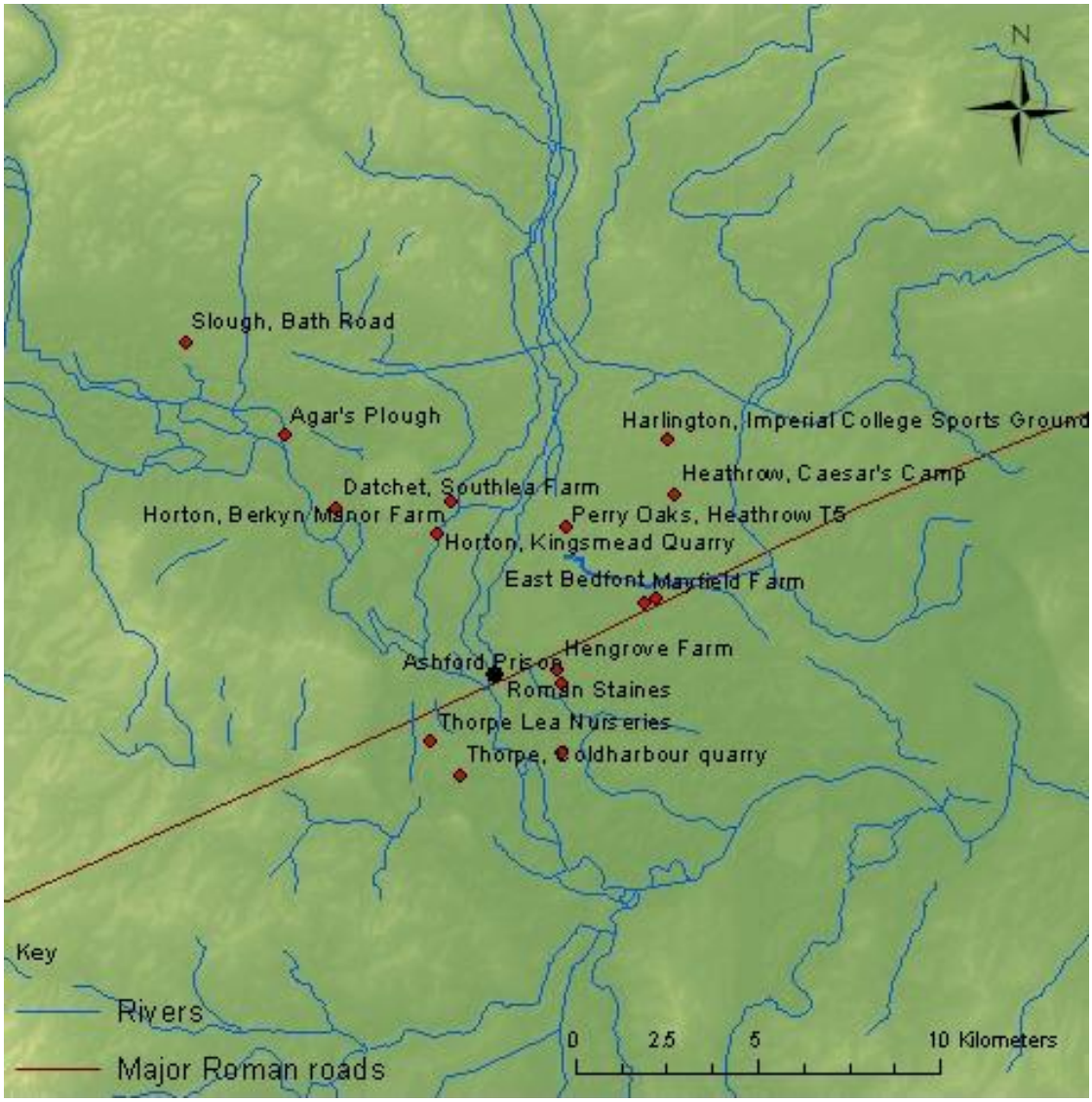


Figure 11.18 The distribution of Early Roman (AD 43 -150) rural sites within the area of Staines-upon-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

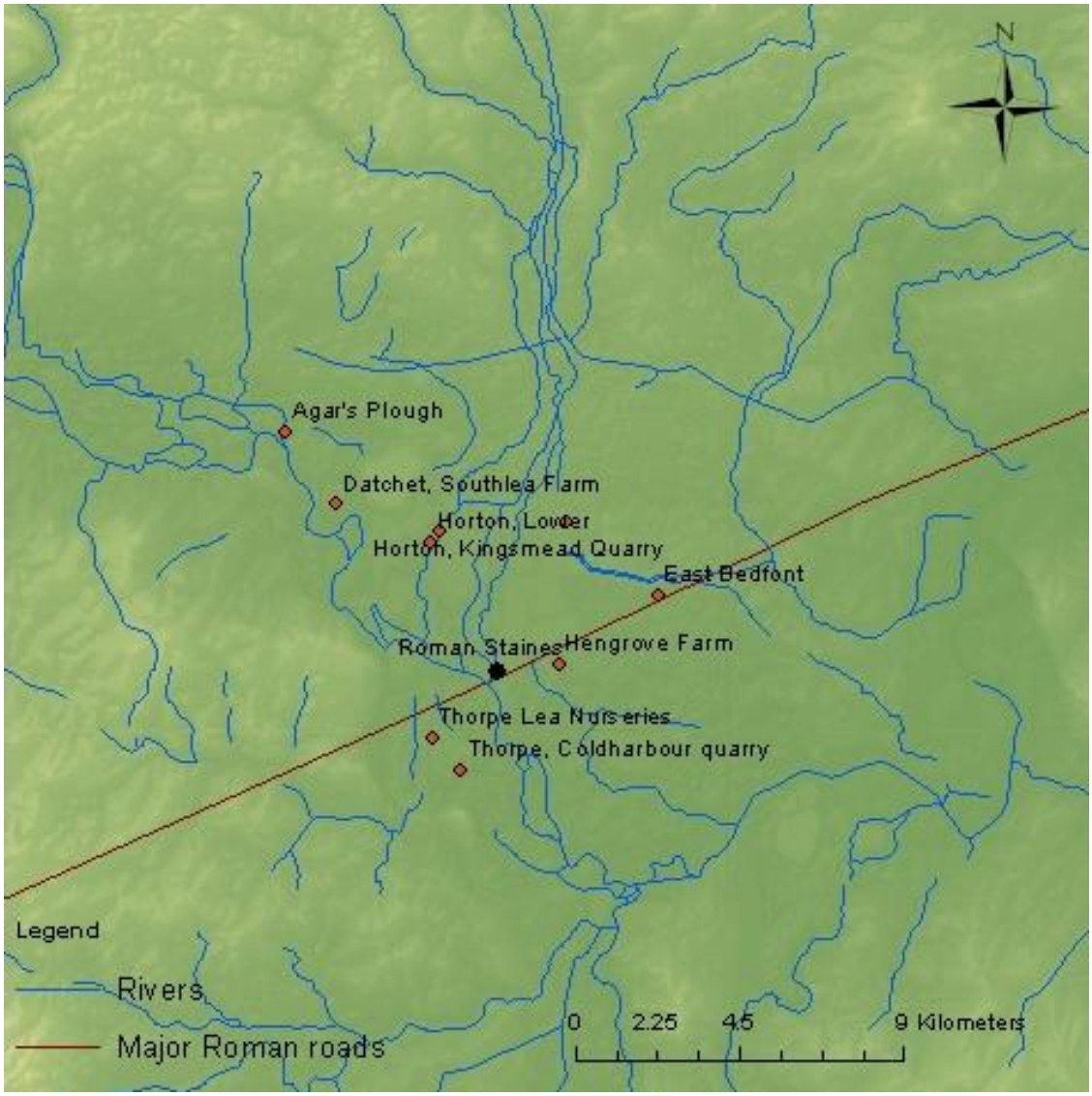


Figure 11.19 Distribution of Mid-Roman (AD 150 - 250) rural sites within the area of Staines-upon-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

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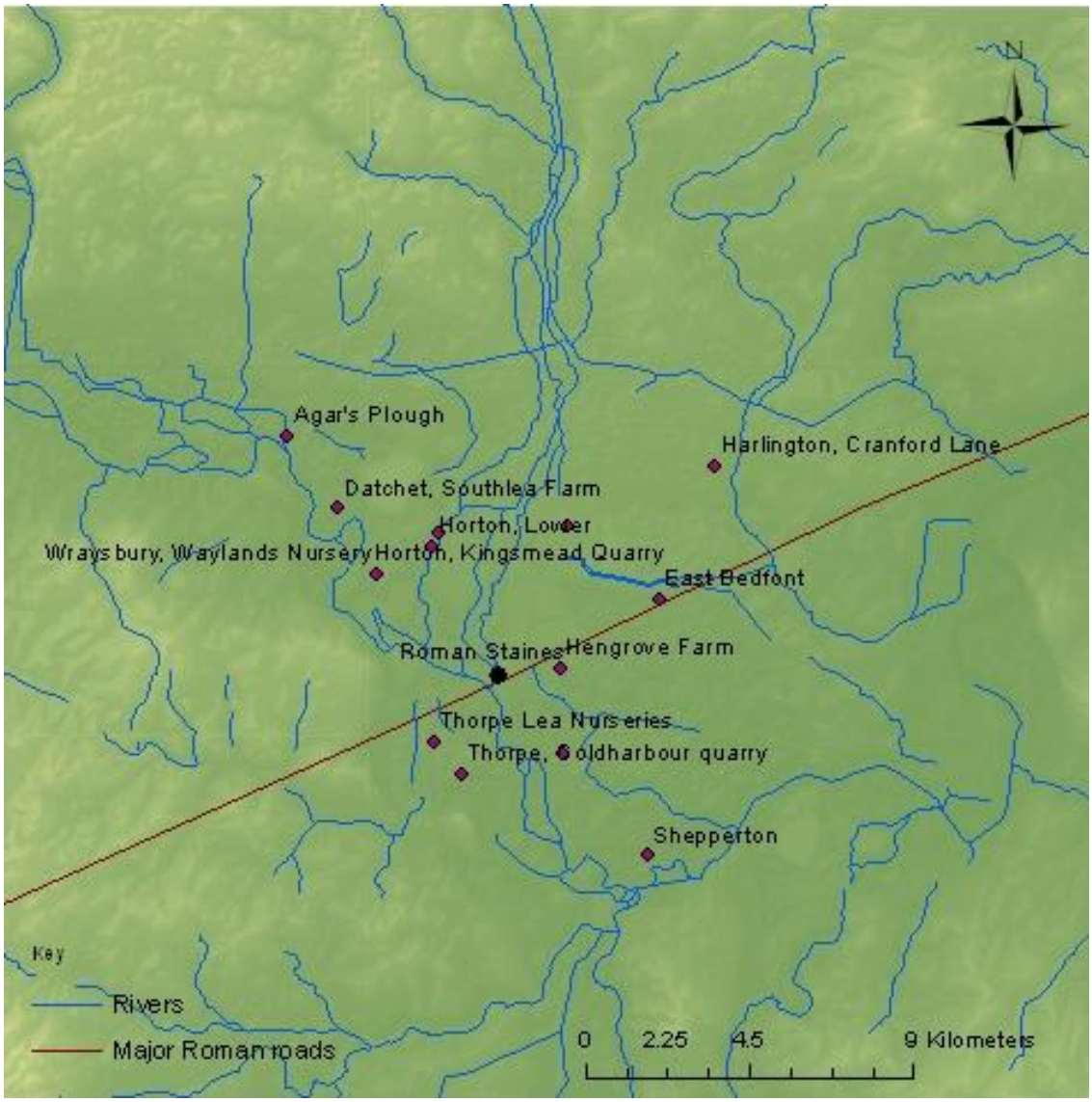


Figure 11.20 Distribution of Late Roman (AD 250 -410) rural sites within the area of Staines-upon-Thames (Background image: Copyright © 2017 Esri and its licensors. All rights reserved. DARMC Scholarly Data Series 2013-5: M McCormick et al. 2013 - Roman Road Network (version 2008))

No evidence of IA occupation has been found on the site of Staines-upon-Thames and as yet no LIA settlement has been found nearby. The hinterland by contrast was sparsely settled and the majority of rural sites well-established in the countryside before the founding of the town in the Early Roman period (Figure 11.18). Apart from the Cranford Lane site at Harlington (Elsden 1996), all the rural sites continued (some expanded) during the Early Roman period (Jones 2010, 38), as the new town became established. Booth has observed that the rapid growth of Staines-upon-Thames appears not to have had an easily discernible impact on the surrounding rural land (2007, 408). It may be inferred from this that the small town settlers were not drawn from the local countryside, but from outside the immediate area.

By the Mid-Roman period (Figure 11.19), and seemingly mirroring the decline in activity at Staines-upon-Thames during the 3rd century AD, only 9 of the rural sites continued to be occupied. By the Late Roman period (Figure 11.20) the tandem effect seems to have weakened. A number of rural sites continued (as did the settlement at Staines-upon-Thames) with the earlier abandoned sites at Harlington and Laleham (Taylor-Wilson 1997) being revived.

The London-Silchester road is prominent in this area (Figures 11.18 to 11.20) bisecting Roman Staines-upon-Thames east to west. Despite the dominance of this communications and trading route, only four of the smaller rural settlements were located along its route: three of these lay to the east of the town en route to *Londinium*. Similarly, although seven sites were within 1km of the Thames River (as it flows today) the spatial distribution of rural sites does not appear to be particularly drawn to either system[183]. Thus, the extent to which perceived communications routes were significant in the location of rural sites here should be treated with caution. The 'pull' of a major Roman road to *Londinium* was not strong enough to displace already established rural communities or attract many new ones. Although this does not necessarily mean that the rural settlements did not have an economic relationship with Staines-upon-Thames, only that the road was not vital. The fact that the majority of rural sites were conveniently close to the Thames may have been more important. It should however be noted that the majority of rural sites were located to the 'north' of the Thames River, on the same side as Staines-upon-Thames and within an area thought to have been territory of the *Atrebates* tribe (Jones 2010, 39, *Fig* 1.19). Only Thorpe and Thorpe Lea Nurseries to the south-west are known on the 'south' side. The expansion of modern London, may have led to more archaeological interest focused near the road or close to the Thames, necessarily affecting the spread of data available.

[183] The rural site at Wexham (just beyond the 10 km extent of this study), unknown before the Roman period, is neither on a major Roman road nor close to the Thames River (3 km distance).

11.7.2 Soil profile for the area of Roman Staines-upon-Thames

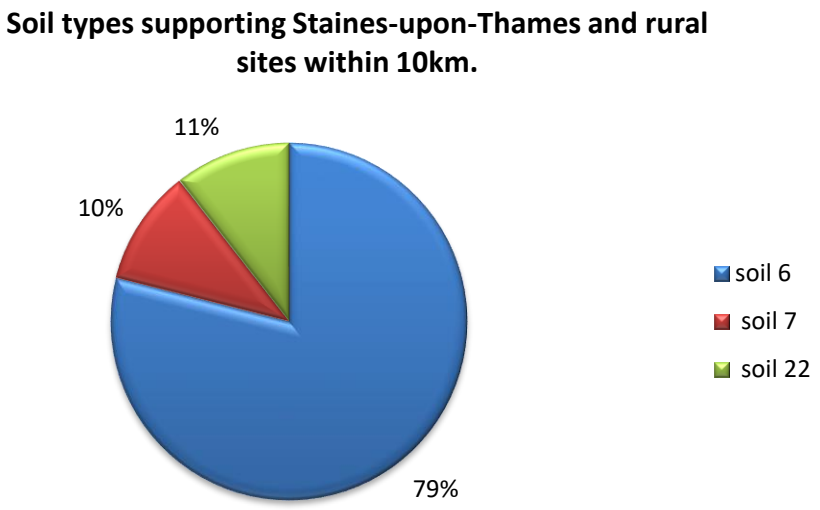


Figure 11.21 Chart to show percentage of soil types within 10km of Staines-upon-Thames

Table 11.9 Frequency of sites by soil type for all Roman periods combined

Soil number	Fertility	Sites
6	Low	15
7	High	2
22	Low	2

Much of the land is now too built up to afford a map of the natural soil types here but data is available for some of the hinterland of Roman Staines-upon-Thames (Appendix K: Staines-upon-Thames soil map), particularly where areas of well-drained loamy soils occur. Soil 6, which has low fertility, underlies the majority of rural sites in the Staines-upon-Thames area (Figure 11.21 and Table 11.9) as it forms a wide margin along the Thames River. This soil appears to have been favoured by around 80% of sites during the IA-Roman period (Appendix J: Table J.6).

The number of sites on each of the three soil types (Figure 11.21) remained constant during the transition from IA to Early Roman period, before diminishing from thirteen to eight on soil 6 during the Mid-Roman period, then rising again to 11 during the Late Roman period (Appendix J: Table J.6).

Table 11.10 Summary of agricultural sites (all periods) according to distance from Roman Staines-upon-Thames.

Place	**Distance (km)**	**Summary**
Staines-upon-Thames	0	No farming evidence
Hengrove Farm	1.5	Substantial farm site established before the Roman period and continuing throughout: multiple enclosures, paddocks and waterholes suggest livestock management.
Ashford	2	Pre-Roman farming overlain with Early Roman field system.
Thorpe area	2	Whole Roman period – probable stock rearing (use of waterholes) and Late period T-shaped corn drier
Laleham	2.5	Field system and paddocks in use pre- and Early Roman periods.
Horton area	4	Stock rearing evidenced by use of field systems (redeveloped over time) and waterholes, from pre-Roman to Late Roman.
Perry Oaks	4.5	Pre-Roman field system, with waterholes continued in use seemingly throughout Roman period.
Datchet	6.5	Field system continued from LIA period to end of Roman period
Agar's Plough	9	Ladder arrangement of enclosure (for stock?) in use from Pre- into Early Roman period before being abandoned in the Mid-Roman period. Evidence for reuse in the Late period.
Slough	10	Pre- and Early Roman farmstead.

Roman Staines-upon-Thames flourished in the Early Roman period, before declining in the Mid-period, but continuing into the Late Roman period. Apart from Hengrove Farm (Poulton 2004), no farms are evident close to the settlement. Early agricultural activity in the area apparently diminished over the Roman period; the only strong evidence remains for waterholes and livestock enclosures, thereby linking sites to livestock management. Moreover, land used for arable farming would have left less easily identifiable archaeological traces. Under these circumstances it has been generally supposed that livestock farming dominated here.

Beyond this, there does appear to have been a general trend towards the reorganisation of the agricultural landscape during the Roman period (Moore 2003, 16). The Coldharbour quarry site (Riccoboni 2006), despite being occupied during the BA, was not reoccupied until the Roman period. The sites at Shepperton (Bird 1999) and Wraysbury (Pine 1998a) are thought to have been newly established during the Late Roman period. These examples may be symptomatic of the need for greater agricultural exploitation of this area, not to supply the population of Staines-upon-Thames, but perhaps to supply consumers in *Londinium.*

11.8 Wetland environs of the small towns

Focusing on the immediate environs of the small towns, it is apparent that each of the settlements was bound by an area of wet or marshy land. The presence of marshy land offered a natural defence on the edge of a settlement[184] as well as providing a range of natural resources[185]. These localised conditions are part of the character of the Thames River Valley where streams swell ground surface water on land already susceptible to river flooding; this is typical along sections of the Thames River through the study area and a number of tributaries. Periodic flooding would have caused local soil erosion and silt deposition, creating extensive pockets of waterlogged land and marked alterations to the line of river banks, evidence for which has been clearly demonstrated during excavations at Staines-upon-Thames (Crouch 1976; Jones 2010). In the Roman period the gravel island on which the town was built was perpetually surrounded by marshy land or flood waters[186]. Branch and Green (2004) have argued that widespread deforestation during the BA and IA would have exacerbated these flooding events. The wet land conditions seem to have been a positive influence on, or correlate with, the choice of small town site. In his study for example, Murphy concludes from analysis of flora evidence from Roman Neatham (Area B) that the local area was characterised by a mixture of wet meadow lands and open grassland (in Millett and Graham 1986, 149). This perculiarly seems to apply to the Surrey region (*ibid* 2004, 14). Branch and Green made the particular observation that there was "increased marshland development for which there is evidence during the late Roman and medieval periods" (2004, 15).

Close proximity of marshland to the small towns would have afforded a number of benefits, from reeds and rushes for thatch and flooring, fishing, fowling to crop raising and animal grazing. Taylor has stated that it is not unlikely that water meadows were managed during the Roman period (2007, 6) and town residents would have been ideally placed to master this. The Romans were accomplished at water management and the native peoples of Britain were also used to exploiting this type of landscape, so the skills needed to manage water meadows are likely to have existed. A system of irrigation channels would have been used to control flooding of grassland area which, after a period of retention the excess water is syphoned off along drainage channels. This operation would have provided

[184] Herodian III, 14, 6-8 (Ireland 1986, 24); Dio Cassius LX, 19-22 (Ireland, 1986, 45)
[185] Wetlands were also local to major towns such as Southwark, York, *Verulamium*, Canterbury and Cirencester. Major flood horizons are known for the latter two Roman centres.
[186] At least three major changes in the shore line of the River Thames have been noted in excavation reports (eg. the Johnson and Clarks site to the west of the island).

an opportunity for fertilising the land with a preparation of lime rendered from chalk (Lodwick 2017, 37) or a manure suspension[187]. Taylor points out however, that evidence for any Roman period irrigation or drainage channels used for this purpose have not only not been looked for, but would have been obscured, if not destroyed, by the use of this land for the same purpose by during later periods (2007, 33-4). There was then certainly potential for worked water meadows to support livestock on the land adjacent to the towns, farmed by individual households or as a community effort. It is the latter which has been encountered elsewhere in the Empire and best describes the use of wet (and dry) rough grazing land in the settlement area associated with Hoogeloon RomanVilla in Belgium (Roymans, Derk and Hiddink 2015, 9-10).

Evidence for the exploitation of this type of environment during the Roman period is, due to its nature, likely to be limited. However, Lodwick notes a general increase in the cultivation of wetter soils (on the evidence of weed seeds) in the Roman period (2017, 36-7). Some tentative examples may be found although they are generally problematic. The use of lime for fertilising wet soil is a possibility at Dorchester-on-Thames[188]. Here a central urban building (Beech House?) appears to have been reused in the Late Roman period for lime burning, as attested to by the construction of around 12 lime ovens (Henig and Booth, 2000, 61). It was not clear to the excavators what the lime was being produced for: no construction work here apparently demanded lime mortar, but the close connection of the town to the agriculture of the surrounding countryside suggests that this may have been used to improve vegetable harvests as the soil is slightly acid, or as cattle disinfectant. Nearby at Mount Farm, Berinsfield, Lambrick (2010, 8) has used pollen analysis to argue for an open wet landscape dominated by willow (*Salix*), suggesting that these trees may have rooted on the edge of Roman ponds and waterholes. However the minimal number of dung beetles found belies the use of this wet grassland for grazing. In Roman Ewell, the causeway construction of a section of Stane Street and high water table levels have been noted during excavation of the well at St Mary's Church Meadow, as well as multiple springs known in the area, all of which confirm a large expanse of marshy land at the edge of the town site (Cowlard 2015 *pers. comm.*). At Roman Braughing, Thompson also notes the 'marshy ground' between Gatesbury Wood and the river (2005, 3) while current and

[187] Traditionally this agricultural practice is thought to have been developed relatively recently as a way of improving the quality of grass to provide early spring grazing for livestock, and to sustain pasture over the summer period (Cook and Williamson, 2007, 1). However, earlier historical use of this practice would have left little or no archaeological record.

[188] Dorchester-on-Thames is now ringed with lakes resulting from the industrial excavation of gravel.

19th century OS maps record in local place names an historic landscape of meadows around Wickham Hill[189]. At Ware (to the south) the 'Roman town appears to have extended over the damp areas next to the river, which the Romans were able to cope with by constructing chalk rafts over the peat and river alluvium' (Thompson 2005, 3). Between the river Wey and Roman Neatham 19th century map references indicate the presence of water meadows in names such as 'Stream Acre' and 'Meadows End'. At Roman Staines-upon-Thames this type of terrain is particularly well-known (Jones 2010). The significance of open wet meadow land in association with these towns suggests that the residents were able to exploit the environs of the town to produce food and materials for domestic or construction use, thereby being unlikely to have to rely on importing staple goods.

11.9 Summary comments on small towns and rural sites

The data reviewed above has identified a number of common trends relating to the distribution of active rural sites around each of the five Roman small towns. The rural sites included represent a range of Roman period evidence from small sections of road, pottery kilns, to farmsteads and villas, although the latter are not well represented. Considering sites relating to agriculture alongside information on local soils, has shown that whilst the most fertile soils were often favoured, less fertile soils were also utilised. Generally, it can be argued that rural sites and small towns had sufficient suitable land to independently raise their own crops and domestic animals, hunt and fish and provide materials for domestic use. Where a surplus seems likely to have been produced, such as meat from cattle rearing near Staines-upon-Thames, this was probably destined for *Londinium*, without recourse to any supposed small town market.

The distribution of IA hillforts in the areas of the case studies is generally sparse (Lock and Ralston 2017) with the exceptions of Dyke Hills, Sinodun Hill (Dorchester-on-Thames); Gatesbury and possibly Caley Wood (Braughing); possibly Dickett's Plantation (Neatham). Three of the five case study small towns were not sited at locations with any long standing tradition of people congregating at hillforts. New permanent settlements under Roman authority would then naturally have focussed on new features in the landscape, such as road junctions.

[189] Preserved in names such as 'Fisher's Mead' to the south of the town and 'Hamels Mead' to the north.

Bias in these data sets is evident in the geographical locations of sites, in that many have only been revealed as a result of archaeological focus on roads and pottery industries; to have a complete archaeological picture of the towns and the rural sites and routes of their hinterlands might result in a different understanding of how these sites related to one another. Marked differences in the nature, quality and detail of archaeological records produced over a number of decades (from which the data is derived) mean that comparisons must necessarily be qualified.

Comparison of temporal changes in activity at rural sites, across the Early, Mid- and Late Roman periods, with the rise and decline of the central small town do not produce a picture of locally synchronised development. Pre-Roman farms seem to have continued at many sites after the Conquest, with some new sites being founded in the Early Roman period. Many sites then ceased activity during the Mid-/Late periods, although a few sites were newly established or were revived during the 4th century AD. These changes have been interpreted here as an indication that the small towns and the rural sites of the hinterland were relatively independent of one another, at least not responding to the same socio-economic influences. These changes might however be more apparent than real and the result of issues in dating material (coins and pottery, etc), particular in older excavation reports, warranting further investigation beyond the scope of this thesis. On the other hand the widespread identification of change from the Mid-Roman to Late Roman periods comes from the demolition of structures and perhaps points to a phase of reorganisation. With no farms (except that at the Hengrove Farm near Staines-upon-Thames) situated close to the small towns this supports the argument that the residents exploited the town environs, extending to a radius of perhaps 2 km, although variable according to terrain, and did not rely on an exchange of goods and services with dependent hinterland sites. The town environs, dominated by wet and marshy land, restricted settlement expansion but provided a natural defence and a rich landscape to be exploited for food and household materials.

Agriculture: livestock farming

12.1 Introduction

The aim of this chapter is to review the material available relating to livestock farming for each of the small towns and the rural sites within their respective hinterlands. The purpose of this is to evaluate the data to see whether they can be used to support market centre status for any of the small towns. It will be considered whether rural agricultural sites might have supplied the small towns with produce for consumption, and whether excess produce was supplied in bulk for onward distribution to larger settlements including *Londinium.* Based on the findings, an alternative view will be argued: that these towns were self-supporting in terms of meat and animal byproducts (bone for working, hides, wool and so on), along similar lines to the agricultural economies of well-studied settlements such as that at Elms Farm, Heybridge in Essex (Atkinson and Preston 1998, 106; 2015). In this representation, the plots of land behind town strip buildings, open spaces within the town and the 'umland'[190] of the settlement fringe were used for keeping domestic animals and for market gardens and cereal production. This idea has been mooted in the past by writers such as Burnham (1987, 176-9), but not evaluated.

The evidence for agricultural production will be related to the findings of the earlier chapters on urban features (Chapter 10) and the changing distribution pattern of rural settlements over the Roman period (Chapter 11), as well as build on the comments in the individual case study chapters. Consideration will be given to the landscape and agricultural potential of the soil in each of the five study areas. The aim of this chapter is to assess the agricultural potential and agrarian limitations of each town as an independent settlement, and whether any market centre role is apparent, based on a review of domestic animal bone fragment data. A review of cereal crop data will be considered in the next chapter.

12.2 The archaeological record – agriculture data available for the small towns and their hinterlands

The spread of agriculture related data available for features, domestic animal bone and crop remains is essentially uneven within and between focus areas. An equal distribution of data across the five small towns and their respective hinterland sites would have enabled

[190] Standard geographical term meaning the urban hinterland or immediate environs of a town, used in this study to describe land economically exploited by the town residents.

a simple comparison and highlighted discernible trends or patterns. As it stands however the nature of the available evidence does not lend itself to this approach, but rather to a qualitative review and synthesis.

Table 12.1 Number of sites recorded with data relating to agricultural activity

Urban and rural sites combined	**No. of sites with Roman period agricultural features[191]**
Braughing	16
Dorchester-on-Thames	24
Ewell	9
Neatham	7
Staines-upon-Thames	12

The nature and quantity of the data for each of the case study areas varies a great deal. For example, the data recorded for the area local to Dorchester-on-Thames derives from 24 sites (Table 12.1) whereas that from around Neatham totals only seven. Wide variation in available data within and between small town areas is the result of many different factors including the simple absence of archaeological interventions and the small number of investigations which have employed environmental sampling techniques, particularly the use of floatation tanks to recover seeds and bone fragments. Some interventions have focused on a single activity, such as pottery production, and for reasons of time and money have not explored other features and finds. The background to the generation of the archaeological material for this chapter is outlined below.

12.3 Literature

12.3.1 Ancient commentary

Understanding the agricultural basis of the case studies has been initially informed by ancient commentary on the pre-Roman period in Britain, particularly the observations of Julius Caesar in *Commentarii de Bello Gallico* written in the 1st century BC (Edwards 2006) and Strabo's *Geographica* from the late 1st century BC/early 1st century AD (Jones 1927). These texts describe the indigenous people of southern Britain producing corn (cereal/wheat) for export and farming cattle[192] and sheep on a scale great enough to

[191] Any site observed as having at least one farming related feature such as an enclosure, droveway, waterhole, etc. (Appendix H: Tables M.1-5).
[192] It has been claimed that cattle dominated livestock rearing in pre-Roman Britain (Ireland 1986).

produce hides and woollen[193] cloth for export across the Roman Empire. The population was also observed to produce a plentiful supply of milk, from sheep/goats or cows[194], although they made no cheese. Britain at this time was valued largely because of the raw materials and agricultural produce it could supply to the rest of the Empire[195]. Based on these descriptions, there is an expectation that the archaeological record should reveal evidence not only for cereal and meat production, but for the processes associated with valuable byproducts including garment production, tanning, bone working, and beer making.

12.3.2 Modern studies and expert opinion

Technology and constantly improving specialist knowledge has allowed modern archaeological excavations to achieve comprehensive retrieval and high quality analysis of animal bone and cereal remains, something not available to earlier excavations of the last century. However, whilst there is now a greater body of data and expertise to draw on, collection and analysis of this zooarchaeological material is often limited due to time and financial constraints; not all archaeological interventions are in a position to make use of expert animal bone fragment or charred cereal analysis. Nevertheless, there is a small body of specialised literature commonly cited by reports and referred to in this study: work by King (1978; 1987; 1991) and Maltby (1989; 1994; 2015) on animal remains, bones in particular, and on eating and drinking (Alcock 2001; Cool 2006). The resulting body of knowledge is however rooted in town assemblages and only the recent work by the Roman Rural Settlement Project has sought to expand and refine understanding of livestock production in rural Britain by analysing assemblage data from rural sites (Allen 2016; Allen 2017). The latter project has produced regional summaries, two of which (the South and the Central Belt[196]) are pertinent to this present study. The focus in this present study however is on the small towns at the heart of this rural landscape and as mooted market centres for the agricultural goods produced.

[193] Fulford queries whether there is as yet sufficient archaeological evidence to confirm a significant wool industry (2017b, 359).
[194] Contra Hesse who claims there is no evidence for dairy herds in Thames Valley in Roman times (2011, 241).
[195] Ancient sources do not mention the extent to which Britain provided a market for goods produced elsewhere in the Empire, although archaeological evidence attests to the import of pottery, filled amphora, jewellery and so on.
[196] The South combines the regions of the south of Britain, the Thames Basin and the Thames Estuary, thereby including Ewell, Staines-upon-Thames, Braughing and Neatham. The Central Belt combines the Upper Thames Valley, the Cotswolds and the Severn Valley, thereby just including Dorchester-on-Thames.

A synthesis of archaeological knowledge relating to the Upper and Middle Thames Valley and including the Roman period was published a decade ago (Booth *et al*. 2007) and provides a number of points of reference for this study, not least because the towns of Staines-upon-Thames and Dorchester-on-Thames are included. A trend is noted for the continuous occupation of many rural sites during the transition from the LIA to the Early Roman period, followed by a period of change in the Mid-Roman period (beginning in the early 2nd century AD[197]) with many settlements being abandoned[198] (2007, 42, 50). This appears to have been followed by a further period of change during the late 3rd and early 4th centuries AD (Late Roman period), particularly striking in the Upper section of the Valley (*ibid* 75, 77). These observations accord with some of the comments on rural sites in Chapter 11 of this study.

12.4 Animal bones and excavations

Whilst the data collected for this study is as inclusive as possible, it should be noted that it is only since around 1990 and the increase in developer funded excavations, that site budgets have been able to include provision for something approaching routine environmental and archaeobotanical sampling. Finds of animal bone generally include evidence for a range of domestic and wild taxa (as far as can be identified), but for the purpose of this study only data relating to cattle, sheep/goats[199], pigs and horses have been included due to their importance in the ancient diet and for byproducts such as skins, bone, wool, hair and sinew. Horse bones have been incorporated, although apart from rare finds of skeletons and 'ritual' horse head deposits, assemblages have included few horse bones[200]. This is surprising as horses were bred for multiple purposes in Britain (transport, warfare, export; for food and for hides), so it is not clear why this is given the large size of horse bones and potential for survival in the ground.

Animal bone remains will have been retrieved during an excavation by hand, through sieving, or collected from a floatation tank during environmental sampling. The most common contexts for these finds are pits, ditches and wells where bones have been discarded after meat or hide removal. None of the data relates specifically to places of

[197] A trend towards decline or change during this period is also known at other sites, such as Elms Farm, Heybridge (Atkinson and Preston 1998, 99).
[198] The identification of these trends largely relies on ceramic data ; a number of possible reasons are suggested to account for these changes.
[199] 'Sheep/goat' is the standard classification used in site reports because it is often impossible to distinguish the bone remains of one species from the other, so they are generally grouped together.
[200] Fulford notes the 'lacuna' associated with evidence for raising horses in Roman Britain (2017b, 359).

food preparation or consumption, such as a domestic building, and there is very little from locations where the animals might have been grazed – only some data from waterholes. As might be expected there is a difference in the type and size of bones which have survived in the soil. For example, the fragile bones of young pigs do not survive as well as sturdy adult cattle *scapulae*. Acid soils can result in the loss of the entire, or a large proportion of, the deposited bone on site, while many factors such as being gnawed and dispersed by dogs or other animals will affect the composition of surviving bone assemblages. In many cases a large proportion of the bone fragments retrieved cannot be identified with any certainty; only verified totals have been included in this study but potentially figures from individual assemblages may be higher than stated. These considerations clearly impact on the data available for research (but to what extent cannot be judged) and must thereby allow for only cautious comparison of assemblages[201]. Recording procedure also differs with some reports omitting particular bones (often rib or skull fragments) from overall analysis figures; this inconsistency alone makes assemblage comparison of like for like, awkward.

The collected data has included as much detail as possible where this has been judged relevant to the question of the production and distribution of animal products in regard to the small towns and rural sites. Some assemblages were found to be more suitable for analysis than others, nevertheless an overall picture was attempted to demonstrate common trends and individual character. For example, the age at slaughter of animals is of value as it can provide an indication of where and for what purpose the animals were raised. It is important to stress that animal bone finds represent the end point, discarded waste retrieved from pits and ditches, and as such the information which can be gleaned about livestock husbandry and the trade in animals and animal products is limited.

Farm animal bone assemblages from the Roman period in Britain tend to be dominated by cattle, sheep/goats and pigs, and to a lesser extent, horse, and have been found on all types of sites including military, civilian and in large towns such as Silchester (Fulford 2012, 185). The traditional belief is that the dominance of sheep in the LIA gave way to cattle in the Roman period, perhaps in response to a greater demand for meat. However, the relative proportions of each of these animal species is likely to be found in the data to vary from one contemporary site to another and over time, due to differences in geography and changes in consumer demand for animal products. In order to have some kind of

[201] Animal bone results are commonly recorded as NISP (number of bone fragments), ABG's are noted where relevant but no MNI (minimum number of individual animals) are attempted.

'measure' by which to assess the finds, the commonly held trend towards a higher proportion of cattle and a lesser proportion of pig bones to characterise urban centres has been adopted (King 1978, 1991; Maltby 2015,179, 184). This trend, Allen has argued, represents an 'expansion in the number of people who were not primarily engaged in food production' (2017, 85) although the archaeological record does not always bear this out (Maltby 2015, 180). Rural sites, on the other hand, apparently present assemblage profiles with a higher proportion of sheep/goat. The Roman Rural Settlement Project has indicated that the average proportions (for all site types) for the south of Britain were circa cattle 50%, sheep/goats 40% and pigs 10%. The Project characterised nucleated settlements[202] as most commonly presenting a relative frequency of cattle ranging from 30 - 80% and sheep/goats from 10 - 60%; villa sites most often registered only 20 – 30% sheep/goats; approximately half the enclosed and complex farms had around 50% cattle to 50% sheep/goats (Allen 2014). It is with these generalities in mind that the case study towns and the sites in their rural hinterlands are evaluated.

The following synthesis and review of the animal bone data is intended to be inclusive and thereby representative of each town/hinterland area. (Individual case study citations are referenced in Appendices B to F.) It is intended that this approach will deliver a realistic picture, as far as the data allows, rather than a generalisation extrapolated from a single well-documented site. The data is presented in table and chart form for clarity and demonstrates how limited is the scope of these data on which past claims have been based. The tabulated data are necessarily quantitative; where pertinent qualitative material has been collected, this has been included in the text. Where the data for a period consists of only one site, this has generally been summarised in words.

12.5 Data and comments referring to the whole Roman period

Within each of the study areas, except for Roman Neatham, a number of the archaeological reports include animal bone analysis representing the entire Roman period, rather than for specific phases or periods. This data is valuable as a summary, although it cannot indicate patterns of change or development over time.

[202] 'Nucleated settlement' in the RRSP includes individual sites within a small number of small towns as well as large rural sites.

12.5.1 Roman Braughing

It is not clear from the archaeological record how Early Roman field enclosures and field systems which have been identified in this area were used, although stock enclosures recorded at Stapleford and Exnalls Farm (Cooper-Reade 1991) showed continuity from the LIA period. Little is also known about agricultural sites in the Late Roman period, except for finds of animal bones at Ware (Humphrey 1999; Petchey and Collier 2005) and of cattle and sheep/goats bones at Bishop's Stortford (Cavanagh 2010), largely constituting remains of meat and hide removal. The small interventions at Mentley villa and the mooted villas at Westmill and Youngsbury have not produced any data relating to agricultural activity.

Just beyond the geographical scope of this study, but useful indicators for the potential of the region, the Boxfield Farm (Chells) and Foxholes (Hertford) sites were both substantial farmsteads. The Chells site (Going and Hunn 1999) included a sub-rectangular enclosure and ponds from the later 1st century, extended in 2nd century, probably for stock rearing; this activity later declined. The site was reoccupied in Late Roman period and a corn drier constructed (perhaps signifying a change in the use of the site) until being levelled in the mid- to late 4th century AD. The site at Foxholes (Partridge 1989) was occupied for long periods from the LIA to the end of the Roman period, but was most active from the 2nd to 4th century and was in close proximity to Ermine Street. The evidence of a large ditched enclosure, fields with ditched boundaries, a trackway, and five Late Roman corn driers attests to extensive arable farming, whilst evidence of industrial processing in this period suggests a new economic direction.

Table 12.2 Roman Braughing and hinterland rural sites with animal bone data for the whole Roman period

Site	**Animal bone fragments for the whole Roman period (unphased)**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Bishop's Stortford, Grange Paddocks	59	26	4	1
Braughing. Ermine St.	2427	3070	1877	211
Standon, Plashes Farm	30	0	0	2
Ware, GSK Restaurant	86	155	35	11
Ware, Lock	58	90	45	3

Contrary to the general trend, at Roman Braughing and Ware to the south, (Table 12.2), sheep/goat bones were generally found to exceed those of cattle and pigs, although this is

not a direct indication of animal numbers nor the quantity of meat consumed, it does underline the importance of sheep/goat meat consumption in these settlements.

12.5.2 Roman Dorchester-on-Thames

Animal bone remains for the whole Roman period excavated from the Beech House site (Rowley 1981) are dominated by cattle, as are to a lesser extent those from the Appleford site (Hinchcliffe and Thomas 1980) (Table 12.3). This may only represent bone survival and it is therefore not cogent to conclude simply that beef production and consumption dominated here.

Table 12.3 Roman Dorchester-on-Thames and hinterland rural sites with animal bone data for the whole Roman period.

Site	**Animal bone fragments for the whole Roman period (unphased)**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Appleford	189	53	12	18
Berinsfield, Mount Farm	Present	Present	0	0
Dorchester-on-Thames, Beech House Hotel	2227	434	242	49
Moulsford, Halfpenny Lane	38	4	3	15
Warpsgrove, Oxfordshire	10	20	4	3
Wittenhams, Castle Hill	42	63	9	10

12.5.3 Roman Ewell

Like Roman Braughing, four out of five of the Ewell town sites also yielded more sheep/goat than cattle bone fragments for the whole Roman period (Table 12.4) with the site at St Mary's Churchyard reflecting this trend in estimates of MNI: cattle 36, sheep/goat 52 and pig 7 (Pemberton 2015). It has been suggested that animals (cattle/sheep?) were overwintered close to the town (Pemberton 1973). Animals owned by town residents would have been moved from summer pastures to the settlement for protection from winter weather and to be fed fodder (left from harvest) more conveniently. Features interpreted as gullies for the removal of animal slurry have been tentatively identified at Church Meadow (Cowlard *pers. comm.*), potential evidence of this practice.

Table 12.4 Roman Ewell and hinterland rural sites with animal bone data for the whole Roman period.

Site	**Animal bone fragments for the whole Roman period (unphased)**						
	Cattle		**Sheep/goat**		**Pig**		**Horse**
	Fragments/NISP	**MNI**	**Fragments/NISP**	**MNI**	**Fragments/NISP**	**MNI**	**Fragments/NISP**
Chessington (RAF), Mansfield Rd	18		4		2		4
Ewell, Church Meadow	243		344		102		16
Ewell, Glyn House	47		35		5		2
Ewell, Grove Cottage/ 46-50 High Street	165		215		54		47
Ewell, Grove School	253		351		82		49
Ewell, St. Mary's Church	230		305		54		66
Ewell, St. Mary's Church		36		52		7	

12.5.4 Roman Neatham

Millett has claimed that Roman Neatham was essentially an 'agricultural centre' during the Roman period with the addition of locally produced pottery as a 'mainstay to the economy' (1975, 216). What evidence there is in support of this assertion is considered in the temporal periods of Early, Mid- and Late Roman below.

12.5.5 Roman Staines-upon-Thames

The four widely spread sites (Table 12.5)[203] with data for the whole Roman period (of which one is in the town of Staines-upon-Thames) all have high numbers of cattle bones. Numbers of pig bone fragments vary greatly between these sites but may in fact be under-represented (Lewis and Smith 2010) as the result of poor survival rates in the ground. High

[203] Percentage animal bone for Staines-upon-Thames – 'Roman' phase (Fulford and Holbrook 2015, 134 Table 4.4). These figures compare closely with mine.

numbers of horse bones are also notable at the site in Staines-upon-Thames (Hayman *et al*. 2012) and at Heathrow Perry Oaks (Lewis *et al.* 2006).

Table 12.5 Roman Staines-upon-Thames and hinterland rural sites with animal bone data for the whole Roman period

Site	**Animal bone fragments for the whole Roman period (unphased)**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Harlington, Cranford Lane	3	0	0	1
Heathrow, Perry Oaks	171	41	3	55
Spelthorne, Laleham	78	37	21	15
Staines-upon-Thames, 42-54 London Road	52	24	13	47
Thorpe, Coldharbour Quarry	61	7	39	11

McKinley has commented that the domestic animal profile for Staines-upon-Thames over the Roman period was distinctive. A greater number of pig bones have been found than might be expected on a rural site, but less than for a 'Romanised' urban centre to follow King's parlance (King 1978; 1991), such as Silchester. By this measure McKinley has argued that Staines-upon-Thames is best described as an "impoverished" suburban centre (McKinley 2004, 29). This valuation is not easily reconciled with the evidence for lavishly decorated 'Romanised' buildings.

The age range of the cattle remains is confined to that of mature adults, slaughtered for meat (evidence of butchery marks peculiar to the Roman period), at the end of a working life (traction or dairy) in and around the town. Butchery, McKinley believes to have been ad hoc across the town, although a butcher's shop or tannery may have existed at the north-west extreme of the town (2004, 48). This is contra Crouch and Shanks who have argued that an area of ditches and pits containing large quantities of cattle bones recorded behind a small but substantial Roman style building (AD 150/60 - AD 180/90), implies a period of wholesale butchery (1984, 127). It is possible that fresh or preserved meat (e.g. salted, dryed or smoked) may have been transported downstream to *Londinium*, but there is a lack of evidence for meat quantities on a scale large enough to feed both the town and supply a market in *Londinium*.

The exploitation of meadow grazing around Staines-upon-Thames to raise cattle for the *Londinium* meat market has been mooted (McKinley 2004, 11; Bird 1996, 224). McKinley has speculated that "the bulk of the cereal crops and most of the cattle appear to have been brought in from the numerous farms in the local hinterland" (2004, 24), this is however

unsubstantiated. At the Perry Oaks site cattle, sheep/goats and pig bone proportions do not appear to have changed from Bronze Age through in to the Roman period (Lewis, 2010, CD p4): certainly not responsive to the consumer demands of a major new settlement. At Hengrove Farm close to the town, the relative numbers of sheep/goat to cattle bones increases during the Roman period (Table 14, 18) against the generally expected trend (Bartlett 1997). Ingrem and Ayers account for this in terms of the nature of the features excavated here (Poulton 2007, 21), but is not clear why this should make such a difference on this site alone.

12.6.Early Roman period

12.6.1 Early Roman Braughing

Animal bone data is limited to the main settlement (Table 12.6) despite the large number of rural sites (Chapter 11, Figure 11.1) and the settlement foci of Bishop's Stortford, Buntingford, Hertford and Ware, recorded for this period. LIA/Roman transition evidence is restricted to the small rural sites at Exnalls and Wadesmill where features suggest continued livestock husbandry, although there is no specific bone fragment data available. The site further west at Stapleford appears to have been abandoned at this stage.

Table 12.6 Early Roman Braughing and hinterland sites bone fragment data.

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Braughing, bathhouse	84	91	89	3
Braughing, S of Wickham Hill (LIA/ER)	396	446	445	37
Braughing, Skeleton Green	786	449	1202	29
Braughing, Ermine St.	366	701	215	19

Evidence of animal bone remains analysed from the LIA/Early Roman site at Skeleton Green, on the eastern edge of the Roman town area, has been used to calculate meat consumption in the LIA /Early Roman period here: beef 60%, pork 30%, mutton 6% (Partridge 1981, 216). Although the number of pig bones is significantly higher than for cattle[204], these figures are based on the difference in the size of the animals which has implications for the amount of meat available: a significant point relating to all sites and periods. It is thought that migrants from the Continent settled here and the high

[204] Over 50% of combined cattle, sheep/goat, pig total no of bones (Appendix L: Figure L.1)

consumption of pork may have been derived from free roaming pigs raised on the edge of the settlement, commensurate with such a community. However, the bathhouse site (AD 25-75) proved to contain a more balanced profile of cattle, sheep/goats[205], pig bones (Partridge 1977), which is less easily explained. Lack of data from the outlying rural sites must allow for the conclusion that the animals consumed in the early town were bred by the settlement occupants exploiting the fertile soil of the Rib valley (Appendix L: Figure L.1).

12.6.2 Early Roman Dorchester-on-Thames

Similar relative numbers of cattle and sheep/goat bone remains characterise the data profile from sites in Roman Dorchester-on-Thames. Over 100 cattle *scapulae* in a single deposit excavated on the central allotment site (Dorchester-on-Thames Project Blog[206]) may represent a demand for beef by the town residents[207], but it is not known whether these large joints represent fresh meat produced locally, or imported smoked or salted[208] joints. Cattle bones dominate assemblages from a number of rural sites (Table 12.7) of this period to the west (Abingdon, Appleford and Berinsford), which agrees with Allen's profile for the Upper Thames region (2017, 91, 93). Excavations here (Miles 1984; Everett and Eeles 1999; Booth and Simmonds 2009; Lambrick 2010), in addition to those at Benson and Didcot (Pine 2005; Anon 2001) have revealed evidence for field systems and tracks indicating newly developed farms in this period, possibly for cattle rearing. Lambrick concluded from his analysis of the remains at Mount Farm, Berinsfield, that whilst the management of sheep did not change from the LIA system, the management of cattle did. Cattle seem to have been kept longer before slaughter, most likely after being used for traction (Lambrick 2010, 15). There is also evidence of contemporary tracks and enclosures suitable for herding and driving the animals from one place to another.

[205] Sheep/goat bones are significant in the Early Roman record, and represented a small breed new breed of sheep introduced to Britain early in the Roman period (Maltby 2015, 183).
[206] http://discoveringdorchester.blogspot.co.uk/search?updated-min=2016-01-01T00:00:00Z&updated-max=2017-01-01T00:00:00Z&max-results=12 [Accessed 15.02.2017]
[207] This deposit may in fact represent a consignment which became inedible and had to be discarded (Willis *pers. comm.*).
[208] Biddulph described similar bone finds in association with salt production at the Stanford Wharf site (2016b).

Table 12.7 Early Roman Dorchester-on-Thames and hinterland sites bone fragment data.

Site	Number of animal bone fragments			
	Cattle	Sheep/goat	Pig	Horse
Abingdon, Barton Court Farm	178	98	41	43
Abingdon, Thrupp House Farm	17	2	0	3
Appleford Sidings	64	30	5	6
Benson, Jubilee Villa	11	50	12	6
Berinsfield, Mount Farm	490	326	93	116
Berrick Salome	66	25	14	20
Brightwell-cum-Sotwell	38	17	2	13
Dorchester-on-Thames, former garage	20	29	0	0
Dorchester-on-Thames, St. Birinus School	40	42	Few	Few
Lollingdon Hill	14	22	2	11
Wittenhams, Castle Hill (3 samples)	21	21	16	1
	29	32	46	0
	8	9	13	0

Animal bones from the sites in the Wittenhams area, which includes two possible small villas, indicates a balance between domestic species more akin to that found in the small town notwithstanding the high numbers of pig bones (Allen 2010) (Table 12.7; Appendix L: Figure L.2). The percentage of cattle bones in this location is around 30%, similar to that at the Braughing sites (cf. Appendix L: Figures Q.1 and Q.2*)*. The exploitation of the fertile grassland (Appendix J: Table J.2) to the west of the Thames River most suitable for raising cattle means that the river would have formed an obstacle to the transportation east of beef on the hoof. Nevertheless, it was possible that meat or skins crossed the river, by bridge or ferry, to the settlement at Dorchester-on-Thames or beyond to a *Londinium* market.

12.6.3 Early Roman Ewell

So far for this early period, no studies featuring animal bone data are available for Ewell (Table 12.8) or the majority of recorded rural sites in the area (Chapter 11: Figure 11.9). What is known is that a number of LIA farmsteads continued to be active into the Early Roman period at North Looe (Cotton 1978) and Priest Hill, Ewell (Cotton 2001), and Alpine Avenue, Tolworth (Hawkins and Leaver 1999), Brighton Road, Croydon (Potter 1993), and field systems on Farthing Downs, Coulsdon and on the Leatherhead Downs

(Hope-Taylor 1949) have been documented. Others, such as the IA farmstead at Hawks Hill[209] were abandoned at this time although some detail is available pointing to the consumption of meat before this event. Despite the fact that the number of cattle bone fragments (n. 234) found on this site was substantially exceeded by sheep/goat (738 fragments) and less so by pig bones (274 fragments) (Hasting 1965, Table I, 40), the figures do represent a high consumption of beef[210]. This site was soon abandoned, but new rural sites developed during this period at Lower Coombe Street, Croydon (Taylor 2011) as well as villa sites at Ashtead (Lowther 1930; Bird 2013, 2014) and Walton Heath (Lowther 1950). A higher number of cattle than sheep/goat fragments were found at the Lower Coombe Street site compared to a slightly higher number of sheep/goat bones from Beddington villa (Howell 2005), but the difference in size of the samples makes this simple observation of limited value (Table 12.8). The low fertility of the soils at the two sites would have provided adequate grassland for grazing both sheep/goats and cattle (Appendix L: Figure L.3).

Table 12.8 Early Roman Ewell and hinterland bone fragment data

Site	**Number of bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Beddington, villa	643	692	258	191
Croydon, Lower Coombe Street	30	7	0	10
Old Malden, St John's Vicarage	48	31	4	20

12.6.4 Early Roman Neatham

The only bone data for Neatham town for this period comes from Area A and Area B (Millett and Graham 1986) and are presented as an amalgamation for the combined Early and Mid-Roman periods as MNI[211] percentages of the overall animal bone fragment assemblage: cattle 15%, sheep/goat 74% and pig 11%. As for Braughing and Dorchester-on-Thames, sheep/goat remains are strongly represented although, as already noted, this probably does not equate to a greater amount of mutton having been consumed; the relative

[209] Comparative IA bone fragment totals for securely identified fragments - potential totals far greater (Hastings 1965, 62).
[210] Hastings (1965) calculated the equivalent meat yield from the remaining bones to arrive at the conclusion that cattle actually provided the most animal protein in the diet here. This illustrates the care needed when considering animal bone remains and meat consumed.
[211] The following articles touch on the difficulties presented when attempting to calculate MNI: http://oxoniensia.org/volumes/1978/bradley.pdf (p 34)
and http://oxoniensia.org/volumes/1981/rowley.pdf (p 50)

percentage of cattle to sheep/goat bone here is very low. The low fertility of the predominant soil along the valley of the River Wey would have been quite suitable for both sheep and cattle grazing and a fairly equal proportion[212] of these animals might have been expected (Allen *et al.* 2017, 87). As the data is from only two small sites in Neatham this cannot be taken to represent of the whole settlement (Appendix L: Figure L.4).

Only two other sites furnished evidence of livestock farming. A site identified at Binsted, where the Upper Greensand topography meets the band of Gault Clay, appears to have exploited both the high pastures and a lower area of meadow land as rough grazing for animals during this period (Lyne 2012, 17). Closer to Neatham, at Holybourne Down (Millett 1981), an enclosure complex and field system were in use over this period but the extent to which livestock were kept here is not clear.

12.6.5 Early Roman Staines-upon-Thames

Somewhat more can be said about the area around Staines-upon-Thames during this period. Scattered rural settlements continued to characterise the landscape from the LIA period, such as the ladder enclosures found at Agar's Plough (Cromarty 2013) suitable for housing livestock and the complex of enclosures and paddocks in use at Hengrove Farm (Bartlett 1997). Poulton has stated that very few sites in this part of the Thames Valley have provided animal bone assemblages suitable for detailed analysis (2007). Where Hengrove Farm appears to be an exception, the paddock features may signify a concentration of cattle which resulted in more bones left in the ground (2004, 17). If taken as a percentage, sheep/goat bones actually make up 50-60% of the assemblage here and at the Elmsleigh Centre in the town (Appendix L: Figure L.5). Further field systems, although these may not have been used for livestock, have been identified at Lower Horton (Preston 2003) and Fairyland Caravan Park (Taylor-Wilson 1997). The remains of cattle bones dominate the assemblages of sites in and around Staines-upon-Thames, with the exception of the Elmsleigh Centre site (Table 12.9). The low fertility of the loamy soil in this area (Appendis O: Figure O.6) would have supported an Early Roman landscape dominated by grassland and suitable for cattle grazing. Nevertheless, Jones has argued that any evidence for any type of farming close to Staines-upon-Thames in the Early and Mid-Roman periods has quite likely been washed away by repeated flooding events (2010, 15-18).

[212] Possibly up to 10% higher for sheep/goat than cattle in this region (Allen *et al.* 2017, 87).

Table 12.9 Early Roman Staines-upon-Thames and hinterland bone fragment data.

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Agar's Plough	7	9	3	5
Egham, Thorpe Lea Nurseries	113	34	8	16
Hengrove Farm	10	20	0	4
Horton, Kingsmead Quarry	123	70	17	28
Horton, Manor Farm	187	36	19	82
Spelthorne, Ashford Prison	31	2	0	19
Staines-upon-Thames, Central Trading Estate	234	173	41	18
Staines-upon-Thames, Elmsleigh Centre	110	269	49	25
	180	375	66	29
Staines-upon-Thames, Friends' Burial Ground	761	310	113	62

Within the town, on the Central Trading Estate site according to McKinley "there seems to have been a typical reliance on meat from domestic stock (table 14)[213], particularly cattle some of which could have been pastured on the nearby meadows but with most brought in on the hoof from local farmsteads and butchered on site" (2004, 29). The evidence for this observation appears to be the lack of bone fragments from very young or old animals. Wet meadow land around Staines-upon-Thames, between the gravel islands, the Thames and the tributaries (Colne and Wraysbury), would have provided excellent pasture for grazing cattle belonging to the townspeople. At the Friends' Burial site in the town a large circular pond has been found with hoof prints around its edge indicating a watering hole; this was filled in by AD 120-130. McKinley points out that butchery marks on some of the bones appear to be of Roman style and punctures/holes on *scapulae* were probably from joints being cured or smoked (2004, *Fig*. 13, 29). This processing appears to be similar to finds in Dorchester-on-Thames and some other urban sites (Maltby 2015, 181). Some carcasses had apparently been hung and cleft, but this bone waste cannot support the idea of large joints of meat being preserved for onward distribution, unless the meat was first stripped from the bone. It must also be mentioned that meat from pigs appears to have been regularly consumed in the town, like at Braughing, perhaps organized under a swineherd to forage in the land on the edge of town.

[213] Central Trading Estate figures with additional, uncertain numbers in brackets: Early cattle = 234 (+ 368?) and Early sheep/goat = 173 (+233?); Mid-Roman cattle = 366 (+495?) and Mid-Roman sheep/goat =136 (+173?).

Apart from the Central Trading Estate, other sites in Staines-upon-Thames which have yielded animal bone deposits include the Elmsleigh Centre, the Prudential and the Johnson and Clarks sites (Jones 2010). In general sheep/goat bone fragments occur in the greatest quantity although the bones of oxen were common finds at the Friends Burial Ground site in the 2nd century (Jones 2010, 169). The oxen were mature at death and had probably been used as draught animals[214] (and possibly milk); knife marks suggested they had been skinned (*ibid* 170). Similarly, sheep/goats were not only a source of meat in Staines-upon-Thames - there is evidence of lamb butchery at the George Inn site (*ibid*, 18) - but also for wool as discussed in Chapter 9. There is also a suggestion from the remains of split sheep skulls that brains may have been used for tanning, and this may be related to the finds of leather goods to the west of the town (Bird 2004, 58-59; McKinley 2004, 48).

12.6.6 Comment on the collective evidence from the Early Roman period

The general development of the Early Roman period agricultural landscapes reflects both continuity in many places from the LIA period and the development of many, but not all, new sites in association with the major Roman road system (*q.v.* Chapter 11). The animal bone data available from sites across the five areas for this period is patchy and it is not safe to claim any pattern of livestock rearing, although clearly beef , sheep/goat, and to a lesser extent pig, were consumed at many rural and town sites. There is too little evidence in terms of the age of animal slaughter to link the location of the town bone deposits to where these animals were raised, close by or herded from some distance for slaughter and consumption.

12.7 Mid-Roman period

Data available for livestock farming for the Mid-Roman period is scarce, for reasons that are not always clear. At some sites this is due to a lack of analysis of the bone assemblages. More often this is the result of fragments overtly being grouped together with Early or Late Roman dated fragments to create larger and more robust samples. This is coupled with the widely recognised challenge of contextualising features and finds within the Mid-Roman period. Thus, only a modest amount of material was collected to review.

[214] For the use of draught animals, see Hesse (2011, 243).

12.7.1 Mid-Roman Braughing

In the area covered by the town, only the Ermine Street site has produced any data for the Mid-Roman period: cattle 105 fragments, sheep/goat 107 fragments, pig 75 fragments, held by Potter and Trow to confirm a general trend over time here for fewer pig bones to be found in the record (1988). Further evidence in support of this generalisation is not made explicit.

12.7.2 Mid-Roman Dorchester-on-Thames

Similarly, at Dorchester-on-Thames only one site has provided any bone fragment data, too small to be representative, as were the additional few cattle bones found at Berinsfield (Lambrick 2010). A number of rural sites do appear to have been abandoned in this period, most notably at Abingdon, Appleford Sidings, Benson and Long Wittenham (although a new trackway and field system came into use at this time). This corresponds to an apparent trend identified to the north of Dorchester-on-Thames in the Thames Valley where many sites were no longer active by about AD 120 and 140 (Booth 2007, 43). Nevertheless, sites at Wallingford (Lewis 2009) and Didcot (Duncan and Jones 2004) were apparently involved in cattle rearing during this period.

12.7.3 Mid-Roman Ewell

At Ewell, the only Mid-Roman period data comes from the site at Lower Coombe Street, Croydon, comprising a very small bone assemblage for Phase 4a (NISP[215]): cattle 28, sheep/goat 10, pig 1 and horse 9 (Taylor 2011). Beef consumption clearly dominated here, although Yeomans has argued that the faunal profile (with over 60% cattle[216]) is not typical of this kind of rural site (in Taylor *et al.*, 2011, 206). Although there is evidence for active rural sites around Ewell during the Mid-Roman period: Chessington (Torrance and Durden 2003) and North Looe House (Cotton 2001), these have only been linked to crop growing and not animal husbandry.

12.7.4 Mid-Roman Neatham

The Mid-Roman figures for Area A and Area B at Neatham, noted earlier, were included in the Early Roman totals, and no other sites in this area have yielded animal bone data for this period. However, there is some evidence to support animal husbandry at a few of the

[215] NISP means Number of Identified Specimens
[216] Appendix L: Figure L.8.

rural sites (Appendix H: Table H.4). At Isington, areas of 'permanent pasture', were noted (Lyne 2012, 32) and at the villa at South Hay (Reynolds Hanger) there appears to have been a stockyard, barn and a trackway leading to the main road. Farmland here was estimated to include 30 ha of permanent pasture (Lyne 2012, 28).

12.7.5 Mid-Roman Staines-upon-Thames

There is only a little more admissible data for Staines-upon-Thames for the Mid-Roman period (Table 12.10)[217]. Several previously active rural sites were apparently temporarily abandoned for this period, such as Agar's Plough (Cromarty 2013), or indefinitely, such as those at Ashford Prison (Moore 2003) and Harlington, Imperial College Sports Ground (Crockett and Nowell 1998). By contrast, a number of sites with features identified as paddocks, waterholes and enclosures, such as at Hengrove Farm (Bartlett 1997), Perry Oaks (Lewis *et al.* 2006) and Kingsmead Quarry at Horton (Chaffey 2009) continued to be active into the Late Roman period. At Perry Oaks, the ladder enclosure system was deemed by Lewis to be on an 'impressive' scale and part of a more extensive enclosure system, probably dating from the 3rd century, and may have run across country to Staines-upon-Thames (Lewis *et al*. 2006, 224). The latter part of this claim does seem to be conjecture based largely on geographical location. None of these sites have yielded any animal bone remains. The features described suggest a focus on rearing livestock, but as crop growing and processing would have left few such strong features, this may not be a true reflection of the balance of farming here.

Table 12.10 Roman Staines-upon-Thames and rural hinterland animal bone fragment data for the Mid-Roman period

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Staines-upon-Thames, Central Trading Estate	366	136	80	22
Staines-upon-Thames, Elmsleigh Centre	193	113	29	23
Staines-upon-Thames, Friends' Burial Ground	965	342	144	71

Three excavation sites within the town of Staines-upon-Thames have produced animal bone assemblages (Table 12.10), with converted MNI estimates given for the Elmsleigh Centre site: cattle 24, sheep/goat 21 and pig 5. At all these sites the proportion of cattle to

[217] Similar animal bone percentages for Staines-upon-Thames for the 'Middle Roman' phase appear in Smith *et al*. 2016, 134 Table 4.4.

sheep/goat bones had increased[218] since the Early Roman period[219]; cattle bones indicating butchery for beef consumption dominate (Crouch and Shanks 1984; Jones 2010). Crouch and Shanks particularly noted an area of ditches and pits containing large quantities of cattle bones, behind a small but substantial Roman style building dating from between AD 150/60 and AD 180/90 (1984, 127). The quantity of bones and the butchery cut marks suggests waste from the wholesale processing of cattle carcasses. The cattle may have been raised by residents of the town on the land surrounding the Town Island or, equally, have been brought in from the hinterland.

12.7.6 Comment on the Mid-Roman period

Many rural sites appear to have been abandoned in the Mid-Roman period whilst others were extended or developed to include animal enclosures, sometimes in ladder form or as paddocks. The latter developments may point to animals being allowed to roam freely to graze, and periodically corralled. The rural sites have rarely yielded animal bone fragment data, inferring that any livestock raised was herded elsewhere for slaughter and processed for meat and skins.

12.8 Late Roman period

12.8.1 Late Roman Braughing

Livestock farming appears to have changed very little around Braughing into the Late Roman period, although there is some new evidence for the processing of animal hides at the school site in Bishop's Stortford (Scholfield 2008), with cattle bones accounting for 65% of main species in the small assemblage (Appendix L: Figure L.10). Analysis of the assemblage from the Football Club site in Ware records 3rd century AD butchery waste largely consisting of the shoulder and leg bones of cattle (Walker 1995). Meat removed from the bone here would need to have been consumed locally or preserved in some way (no evidence for this to date) for transporting any distance, as for example to *Londinium*. Contrary to the general dominance of cattle bones at these sites, the Ermine Street excavation in the town attests to a reduction in the relative number of cattle to sheep/goat bone fragments for this period (Table 12.11), as well as a significant number of pig bones,

[218] From very variable to more consistently around 60% of cattle, sheep/goat and pig bones (Appendix L: Figure L.9).
[219] At around 50%, this figure agrees with Allen's claim that frequency of cattle bones increased in the London Basin area to at least 40% in the Mid-/Later Roman period (2017, 89-90).

indicating a change in meat consumption according to Potter and Trow (1988); although on the major through road, these sites were apparently not involved in cattle rearing for trade.

Table 12.11 Late Roman Braughing and hinterland site animal bone data.

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Bishop's Stortford, School	35	13	2	5
Braughing, Ermine St.	406	490	125	101

12.8.2 Late Roman Dorchester-on-Thames

Within the Dorchester-on-Thames hinterland the period leading to the end of the Roman occupation also appears to be marked by little change: many of the structural remains discovered remained in use from the Mid-Roman period. Only the Barton Court site was redeveloped to provide enclosures and paddocks (Miles 1984) and at Mount Farm, Berinsfield, part of the animal enclosure complex was still in use although much of it appeared to have been abandoned (Lambrick 2010, 28).

Animal enclosures and a watering hole, dating from between the 2nd and 4th centuries AD, have been identified in Dorchester-on-Thames at Minchin Recreation Ground, close to the town defences (Morrison[220] 2009, 43-5). The Beech House site within the town has yielded large quantities of butchered bone and horn core from the 3rd and 4th centuries AD (*ibid*) whilst the Bishop's Court site was found to include field enclosures and tracks dating from 4th century, only 500m from the north-west corner of Dorchester-on-Thames. Notably here animal bone fragments were mostly those of cattle, a substantial percentage of which were immature beasts (under 4 years), indicating that overwintering of cattle close to the town was likely (May 1977, 79).

Table 12.12 Late Roman Dorchester-on-Thames and hinterland sites animal bone data.

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Abingdon, Barton Court Farm	2453	1130	389	473
Berrick Salome	47	7	0	19
Brightwell-cum-Sotwell	43	14	3	3
Dorchester-on-Thames, Bishops Court SW	373	177	0	0

[220] Morrison's work is a synthesis of what is known about Dorchester-on-Thames from antiquarian work and archaeological excavation at Dorchester-on-Thames

Dorchester-on-Thames, Old Castle Inn	865	426	202	8
Dorchester-on-Thames, St. Birinus School	43	20	0	0
Lollingdon Hill	62	62	9	16
Walley Corner	Present	Present	Present	1
Wallingford, Cold Harbour Farm	355	203	46	36
Wittenhams, Castle Hill (3 samples)	305	396	117	10
	2388	3033	1033	0
	263	331	108	0

Three rural sites and those in Dorchester-on-Thames clearly have cattle[221] bones representing roughly twice the amount of sheep/goat bones (Table 12.12), which agrees with a post 2nd century AD shift towards cattle production identified by Allen (2017, 110). This may not necessarily indicate greater beef consumption but rather the need for traction animals[222]. At other rural sites such as Wallingford, the difference is less marked. Notably only the assemblages from sites at Little Wittenham and Long Wittenham with pre-Roman origins differ in exhibiting a higher proportion of sheep/goat bones (Table 12.12) than was generally recorded for the Early Roman period. This seems to attest to the continuation of traditional local farming patterns.

12.8.3 Late Roman Ewell

In the Ewell hinterland there is also seemingly little change in rural activity during this period, other than the abandonment of the farm sites at the former Queen Mary's Hospital site at Carlshalton (Godden 2008) and on the Brighton Road Croydon (Potter 1993). The animal bone data for the Late Roman period is again, scant, although the Lower Coombe Street site in Croydon has yielded a very small assemblage dominated by cattle bones (18), compared to sheep/goat (6) and pig bones (2). The only large assemblage comes from the villa site at Beddington (Howell 2005) which is also dominated by cattle bones, overall comprising: cattle 975, sheep/goat 575, pig 271 and horse 87. The only other data is presented in the form of MNI (cattle 5 and horse 1) from the Skerne Road site at Kingston-upon-Thames (Bradley 2002). Apart from this evidence for the popular consumption of beef and cattle byproducts, there is no specific evidence for features such as animal enclosures from this period (Appendix H: Table H.3).

[221] Equating to 55-65% of cattle: under 30% sheep/goat (Appendix L: Figure L.11).
[222] Allen points out that slaughtered cattle were commonly of increased age: 5-10 years old on rural sites (2017, 110).

12.8.4 Late Roman Neatham

Untypically, the hinterland around the town of Neatham appears to have more active sites during the Late Roman period (Appendix H: Table H.4) than previously. To the north-west of the town an apparent increase in pasture acreage has been suggested (Lyne 2012). Six farmsteads have been recorded for this period on the Alice Holt plateau (Lyne 2012, 36), in addition to a 4th century farmstead at Kingsley (Lyne 2012) and at South Hay, where a stockyard has been identified along with separate areas thought likely to be given over to pasture and rough grazing (Lyne 2012).

Animal bone data is only available however for two sites in the town. Here Area A and Area B have MNI recorded and presented as percentages of the overall animal bone fragment assemblage: cattle 48%, sheep/goat 36% and pig 16% and display a variety of age groups at death (Done 1986, 142). At the Neatham/Holybourne Depot site, the number of cattle bones recorded totaled 196, compared to sheep/goat 148, pig 29 and horse 15[223] (Trevarthan and Manning 2009). Where the latter numbers have been used to estimate MNI, this equates to cattle 30% (6 individuals), sheep goat 55% (11), pig 10% (2) and horse 5% (1). A preference for the consumption of beef elsewhere in Neatham and the countryside around is demonstrated, with animals raised on the edges of the town or further afield, slaughtered on site, as attested by the range of animal parts recovered. Similar cleaver marks were found on the bones from all of the Neatham sites: possibly Roman butchery style (Done 1986, 144). However, based on the Neatham/Holybourne assemblage Grimm has concluded that "the proportions of cattle, sheep/goat and pig fit well with the pattern observed at rural settlements in Hampshire and more widely in Britain (King 1999, 180), with pig content too low and sheep/goat too high for a typical Roman town assemblage" (Trevarthan and Manning 2009, 14-16). In combination this evidence points to Late Roman Neatham being essentially an agricultural settlement employing Roman practices.

12.8.5 Late Roman Staines-upon-Thames

The only reported changes in the rural hinterland of Staines-upon-Thames going into this period are the construction of a new triple-ditched farm enclosure at Wraysbury (Pine 1998a) and a further enclosure complex developed at Cranford Lane, Harlington (Elsden 1996) (Appendix H: Table H.5). Both of these might indicate a response to increased

[223] This equates to 50% cattle bones and 38% sheep/goat (Appendix L: Figure L.13)

demand for livestock. At the Heathrow Terminal 5 site it has been argued that the Late Roman ladder enclosure identified here would have been part of a large network of local field enclosures, drove ways and isolated farmsteads linked to major routeways, for the purpose of supplying agricultural goods to major towns (Lewis *et al.* 2010, 310-11) and presumably *Londinium.* Whilst this seems a reasonable argument, beyond supposition there is little evidence for any of the individual sites being linked by tracks. Although there is creditable argument for transition development between LIA/Early Roman (*ibid* 272-3), the picture in the Late Roman period here is less certain (*ibid* 290, 292). Nonetheless, enclosed fields and tracks may represent extensive animal grazing and corralling for trading or breeding, they appear to be independent and belie any central marketing role being played by Staines-upon-Thames.

Table 12.13 Late Roman Staines-upon-Thames and hinterland animal bone data

Site	**Number of animal bone fragments**			
	Cattle	**Sheep/goat**	**Pig**	**Horse**
Egham, Thorpe Lea Nurseries	224	83	10	51
Hengrove Farm	231	240	23	113
Horton, Kingsmead Quarry	183	48	11	55
Staines-upon-Thames, Central Trading Estate	355	100	60	51
Staines-upon-Thames, Elmsleigh Centre (2 samples)	325	260	55	47
	62	41	9	10
Staines-upon-Thames, Friends' Burial Ground	240	80	113	72
Staines-upon-Thames, Old Police Station	104	77	5	1

Cattle dominate the majority of animal assemblage profiles from in and around Staines-upon-Thames, with the exception of that at Hengrove Farm (Bartlett 1997) immediately to the east of the town, although the total for cattle bone fragments here only falls a little below that of sheep/goat (231:240) (Table 12.13[224] ; Appendix L: Figure L.14). As at Hengrove Farm, the Elmsleigh Centre in the town also had a significant total number of sheep/goat bones, contra to Allen's claim that sheep/goats were not well represented in this region (2017, 91). The amount of pig bones from some town sites suggests the townspeople managed livestock both within and on the edge of Staines-upon-Thames. The

[224] Similar percentage animal bone for Staines-upon-Thames – phase 'Late Roman' appears in Smith *et al.* 2016, 134 Table 4.4.

eastern end of the Town Island appears to have continued to be occupied by small holdings – raising animals and crops - in the Late Roman period (McKinley, 2004, 51).

12.8.6 Comment on the Late Roman period

This period seems to reflect a further general change in the nature of livestock farming in and around the five towns. After what appears to have been an increase in the Mid-Roman period of cattle farming in the landscape of the Thames Valley basin, the Late Roman period perhaps indicates a return to a more mixed agricultural picture. Evidence for any animal trading connection between the towns and the countryside remains elusive.

12.9 Summary of the review of livestock remains

Animal bone deposits have survived relatively well in each of the case study areas enabling samples to be available for study. However, many of the samples are small and, particularly relating to the Mid-Roman, the data is thin or absent from the small towns sites. No archaeological features have been identified in any of the small towns which might be held as evidence for the centralised processing of animal products, such as tanks for tanning leather hides, for cleaning fleeces, or structures for smoking or drying meat. In fact, apart from occasional evidence for the increased age of slaughtered sheep, there is little evidence for wool production. Neither have any structures been found which might suggest centralised marketing of animal products from the local areas, such as a butcher's shop or store.

What can be said from the bone data available is that cattle, sheep/goats, pigs and sometimes horses were slaughtered for their meat (and other biproducts), at both town and country sites. Cattle have been found to have provided the greatest quantity of meat consumed on any particular site when animal size and bone fragment numbers for each species are rationalised in terms of meat yield. As the bone assemblages can only represent the place where the animal bone waste was finally deposited, they must also bear witness to where the meat was consumed, dumped, or at least the flesh removed from the bones. Unless preserved in some way, meat from the five case study areas would not endure long distance transportation to large towns or *Londinium.* At sites where a range of bones from younger and older animals have been found, especially including skulls and hoofs, it is generally accepted that this indicates that these animals were bred close by. If towns were importing meat, bone deposits comprising remains of animials of prime meat age and the most common joints would be expected to dominate the archaeological record.

The five case study small towns were each in a good location in terms of access to enough suitable pasture or grazing land to meet the needs of the townspeople. Whilst it has been claimed that livestock processing at Staines-upon-Thames could be consistent with a market centre role (Smith *et al.*,2016), the evidence to support this is not clear. The scale of livestock farming known in any of the five areas does not appear to be on a sufficient scale to supply wholesale meat and animal products. In fact it seems more likely that meat consumed in *Londinium* was sourced much closer, such as the Old Ford settlement where extensive pasture land and archaeological evidence for wooden roadside buildings and a large barn structure (Powell 2012, 70) have been mooted for this purpose. Certainly there has been found to be a higher percentage of cattle bones relative to other species on excavated sites in *Londinium*: an average of 69% north of the River Thames and 58% from Southwark[225] (after Maltby 2015, 180 Table 1); with no evidence of preservation (salting, drying or pickling) this supply of meat must be derived from nearer the city or driven close before slaughter. At least one possible butcher's shop identified (31-37 Borough High Street) along with distinctive butchery waste (including skulls and feet, as well as principal meat joints) from a number of sites within the settlement suggests that animals were slaughtered and butchered here (Cowan *et al.* 2009, 111). The significant number of young animals present at the Borough High Street site suggests that cattle were raised close to the edge of Southwark (Drummond-Murray and Thompson 2002, 266).

It might be argued that many of the sites investigated made use of the major Roman road system to move livestock (Maltby 2015), although it is doubtful whether metalled roads would have been suitable for herding and drover's roads would more likely to have been used. Preserved meat however, could have been packed and transported via carts over short distances.

On the basis of the evidence reviewed, the five towns clearly differed from one another and unifying attributes are hard to establish apart from the general dominance of cattle[226] (Booth *et al* 2007, 283). However, some general remarks can be made. Each of the town sites matches the most typical relative frequencies of cattle to sheep/goats found at

[225] Cattle clearly dominated the Borough High Street assemblages after AD 50, in contrast to sheep/goats and pigs, although this declined towards the 2nd century (Drummond-Murray and Thompson 2002, 265-6).
[226] Hesse has argued that a higher percentage of cattle on sites in the Thames Valley at the expense of sheep is due to the fact that cattle adapt better to the damp conditions of flooded areas than sheep (2011, 233), this should be accepted with caution. It is generally thought that the breed of sheep kept during the Roman period was similar to the now rare Soay breed, commonly used for comparison (Partridge 1981, 214, 217), renowned for their hardiness and perfectly adapted for waterlogged pasture. It is also known that certain breeds of sheep instinctively keep to a small area when roaming freely ('hefting'), so flocks might have been easily managed in this type of landscape.

nucleated sites, as analysed by the Roman Rural Settlement Project[227]. The trend towards higher relative proportions of pig bones found on urban than rural sites (Booth et al 2007, 283) however is not evident (with the exception of Early Roman Braughing and the Friends' Burial site at Staines-upon-Thames), rarely exceeding 10% on any site in the study. This infers that these small towns should be more closely aligned to agricultural communities than urban ones. If the residents of the small towns raised their own livestock on the land in and around the town this is likely to have produced animal bone assemblages dominated by either sheep/goat or cattle with a reasonable amount of pig and a number of horse bones. The amounts would be limited by the production capacity of the land and the needs of the population. Large rural sites, on the other hand would have had fewer consumers relative to the amount of land available, thereby allowing for specialisation (raising cattle for example) and 'overproduction' which could be traded. As land grazed by cattle is more sustainable due to the way cattle eat (grass is bitten off high above the soil level and the pasture regrows easily), in comparison with the more vigorous eating behaviour of sheep, land peripheral to the towns could have been continuously exploited in this way. Where the land close to the town was more favourable for sheep/goats, such as Ewell, this was reflected in the bone fragment evidence for the Early Roman period. The lack of widespread evidence for horse bones is unexpected and may point to the exploitation of wild horses, rather than domestic breeding programmes (Allen 2017, 126).

It is very difficult to distinguish a consumer site from a producer site when considering the data, perhaps because this idea is rooted in modern economic frame of reference, rather than an ancient one where one site (small town or rural) fulfilled both functions. Ultimately the archaeological record for animal husbandry is currently very incomplete, but future studies may give more attention to bone fragment assemblages and their interpretation. The use of strontium isotope analysis on animal teeth in the future may help to identify where livestock were raised. However, this may only establish the broad picture of, on the one hand, livestock raised in the region of this study or brought in dead/alive from further afield where isotope signatures may differ. The review of the evidence currently available suggests that the residents of the five case study small towns were involved in pastoral farming along traditional local lines, and not passive consumers of imported animal products, nor involved in marketing agricultural produce to larger towns.

[227] There is only a small overlap of sites included in both this present study and the Roman Rural Settlement Project.

Agriculture: cereals

13.1 Introduction

There seems no reason to doubt that cereal crops provided a key component of the population's diet in Roman Britain, with grains eaten as bread or porridge (Jones 1991; Alcock 2001; Cool 2006) and malted for brewing ale. Crops, or part thereof, unsuitable for human consumption were utilised as animal feed, bedding, thatch, packing material and tinder. It is generally accepted that agriculture expanded to produce a surplus in the Roman period (Allen 2014; 2017), largely to feed not only the Continent and the North of Britain, but also town populations. An increase in cultivated land, often exploiting wetter soils (Lodwick 2017, 36-7) is also thought to have occurred. In tandem came the introduction of new farming technology and the more intensive application of the farming methods already in place in the LIA (Jones 1981; Booth *et al* 2007, 285). An example of farm equipment has been found at Dorchester-on-Thames in the form of an iron coulter (plough blade), although this dates from the Late Roman period (Booth *et al* 2007, *Fig.* 6.5, 288). This is a rare find due to the common practice of recycling metal, rather than these being atypical among farming tools. A percentage of surplus production would have been appropriated as tax (*annona militaris*), the remainder, Lodwick has speculated would have gone to market (2017, 11) to feed an expanding population[228] (*ibid*, 142), although the location of such markets is left open.

13.2 Cereal data

Generally across Roman Britain, as Lodwick has argued (2017, 21), spelt, emmer wheat and hulled barley formed the main cereal crops grown, with free-threshing wheat, oats and rye forming minor crops. For the purpose of this study, only data representing finds of the most commonly cultivated cereals during the Roman period have been included here: spelt wheat (*Triticum spelta*), emmer wheat (*Triticum dicoccum*), bread[229] wheat (*Triticum aestivum*) and barley (*Hordeum vulgare*)[230]. Spelt wheat dominates the cereal remains recorded for the South region (Allen 2016, 127 *Fig.*162). Apart from the edible part of the grain, evidence for chaff (hulls, husks, spikelets and stalks) has also been included in this

[228] It is not clear what evidence underpins this claim, but it might be argued that the existing population became more visible during the Roman period as permanent settlements became more widespread.
[229] Sometimes referred to as free-threshing wheat as the grain is easily dislodged from the hull during threshing. Also referred to as club wheat.
[230] 'Barley' refers to six-row hulled barley, the most commonly cultivated during the Roman period. Other types, such as 'naked' barley, are included where specified.

study as an indicator of the processing and storage methods used. In addition to wheat, barley has been included as this is thought to have been malted (wheat grain was commonly malted too), as a basis for the production of ale – traditionally brewed in Britain before and during the Roman occupation. Barley waste, along with chaff from spelt and emmer wheat, provided nutritious animal fodder, particularly for dairy cattle. As dry cereal crop waste provided convenient tinder for hearths, and otherwise lost to wind and rain dispersal, and scavenged by birds and rodents, scant remains of these crops are to be expected in the archaeological record.

Many of the archaeological data refers to charred cereal grains (Van der Veen 1989), the result of carbonised organic material surviving well in many soil types when deposited quickly and left undisturbed. Charring is usually thought to result accidentally when a harvest was artificially dried in a corn drier prior to storage, from parching spelt wheat before threshing, and as part of the malting process for making ale. For this reason, parching spelt wheat to facilitate the removal of the grain from the tough hull has been used to account for the over-representation of spelt in the archaeological record. This should be accepted with caution however, as the drying process would not have been carried out at a temperature high enough for any amount of the grains to become charred[231]. It is also known through archaeological experiment that hulled grains can be efficiently de-husked after damping, and pounding in a large pestle and mortar[232], implying that heat-treating may not have been in common use. A more prosaic explanation for the presence of charred grain in corn driers or in domestic contexts is the use of of threshing waste, with stubborn grains still attached, for tinder. Thus charred grain data may represent only a minor aspect of crop processing (Hillman 1981; Stevens 2003) or waste usage, rather than accidentally the result of common practice.

Single fields or field systems, defined by ditches or fences, are known in the Roman period landscape and have been identified within the case study areas at sites, such as Farthing Downs near Ewell, but it is rarely clear whether these defined areas were for crops or livestock. Aside from the potential use of field systems, cereal crops would have been

[231] http://ancientgrains.org/nesbitt1996hulled.pdf [Accessed 5.3.2017]
[232] Ancient records describe the use of a stone for this purpose (Virgil *Aeneid* I, 177-9) or metal pestle reinforced with iron (Pliny *Natural Histories* xviii 23).

grown on plots of suitable land[233], away from livestock but perhaps alongside cultivation of vegetables and fruit, to provision individual households.

The descriptive values of 'abundant',' moderate' and 'minor' have been adopted[234] for use in this study and applied to the tabulated data before review (Appendix M). Although not precise numerical values as demanded in a quantitative evaluation, these labels do convey an idea of both amount and relative quantity. This approach has been necessary due to much of the material available consisting of the qualitative comments recorded by excavators rather than the results of thorough environmental analysis of flot samples.

The evidence for corn driers is first considered below, followed by a review of the cereal data by case study town/hinterland area according to occupation period: general 'Roman', Early: AD 43-150, Mid-: AD 150-250 and Late Roman: AD 250-410 (Appendix M).

13.3 Corn driers

Structures identified as corn driers vary in design[235], but in essence incorporate a stoking area, a hearth, often within a long flue and a drying chamber with one or two floors. The most recognisable and distinctive form is the T-shaped (Morris 1979; Allen 2013, 27; Lodwick 2017) but variations of (as they survive) simple channels with a stoking pit are relatively common in some regions by the Late Roman period. Morris notes that in the south-east drying 'rooms' within larger structures seem to have been popular (1979, 20). Corn driers were initially studied by Goodchild in 1943 who identified them as being used for drying[236] or malting grain, from the charred remains found in the hearth and flue sections. This explanation does tally with references to cereal processing in ancient literature. Pliny (*Natural Histories* xviii 14) recounts the use of a similar method for drying (parching) grain in Italy. The logical connection between drying grain for storage, particularly in the damp climate of Britain, and these substantial structures is easily accepted, but is not without problems.

The fact that the hearth fire was deliberately kept at a distance from the drying floor by means of a long flue, indicates that it was intended to protect the grain (or other material)

[233] It is not clear how much land would have been needed dedicated to cereal cultivation to support a household or farmstead, but Internet research suggests that around one quarter of a hectare would have been enough.
[234] From that used in the Roman Rural Settlement Project.
[235] For brief summary of types, see Lodwick (Allen 2017, 55-57).
[236] For different methods of drying corn, see van der Veen (1989, 303).

and avoid charring (wastage). It is also not known how the superstructure over the oven was constructed in order to allow the moisture from drying grain to escape and for a sufficiently broad area to be heated to make processing quantities anywhere near efficient. Reynolds and Langley have pointed out that the presence of charred grain and chaff in these structures might simply indicate the use of field waste to light the hearth fire (1979, 28), some of which would have blown along the flue. It might also be argued that straw (and stray grains) could have been used on the drying floor as packing around some other another commodity, or even for drying new pottery. The fact that only a low heat is required to dry grain or halt the malting[237] process means that charred grain should only be found where it has fallen into the stokehole near to the fire or along the flue. This was attested by Reynolds and Langley's reconstruction and experimentation of one of the 4th century corn driers from Foxholes (1979).

13.3.1 Corn driers and small towns

Although corn driers are known from the Early Roman period, numbers appear more prevalent in the Late Roman period. A change in location is also apparent in that in the 2nd century AD the majority occurred on complex farm sites, but by the 4th century AD this focus had shifted to villa sites[238] where they were incorporated in house or barn structures (Morris 1979, 18; Lodwick 2017, 60). Allen has identified a wide distribution of these structures in the East Midlands from rural archaeological intervention data; roughly of an equal density to those in the hinterlands of the five case study towns here (2013). One might account for the thin distribution in the landscape by use of a single grain drying service by a number of production sites. If this were the case and small towns obtained grain from one or more local rural corn drier sites one might expect to find at least a hint of a supply chain, perhaps in the form of regularly used access tracks. It is also possible that corn driers were used on estates to prepare grain levied in tax to prevent spoiling during transportation and longer term storage. Corn driers, to date, are poorly represented in small towns including those in this present study.

It has been supposed that a change to a wetter climate over the Roman period would have increased the need for artificial grain drying and therefore an increase in corn drier numbers, however no link has yet been proved. This may be because, even accepting

[237] If a corn drier was used for malting one might expect to find nearby a specially constructed ditch in which to soak the grain to encourage sprouting. I do not know any examples of this combination of features.
[238] A number of complex farm sites may have later become villa sites, so these categories overlap over time.

climate change, the traditional stacking of grain in the field, at least in southern Britain, would still have been sufficient to dry the cereal crop for threshing and storage. The question also remains as to why the trouble was taken to build a corn drier (whatever the weather) when it would only be used annually for a brief period after harvest? One answer might be the adoption of a new Roman method of 'combine harvesting' utilising a *vallus* (Matthews 2017; King 1990, 101) - a modified cart to remove the grain heads – reaping by this method would have required a different way of drying the harvest since the stalks would have been left behind in the field[239]. The use of a corn drier could then have been necessary to process cereal in larger quantities. The use of sickles during harvest to cut off just the grain heads (Alcock 2001, 18; Lodwick in Allen *et al.* 2017, 47) might require a corn drier for the same reason. A new approach interpreting corn driers as multipurpose structures, might be of some value.

13.4 Cereal processing for the whole Roman period by individual area

13.4.1 Roman Braughing

There is no quantitative data available for cereal remains either from the small town or from any of the immediate hinterland rural sites, with the exception of a small sample of charred grain retrieved from a hearth site in Building VII at Skeleton Green, dating to the early 1st century AD. This sample was analysed and the tentative results have shown that it included either or both spelt and emmer grains, along with six-row barley (Monk in Partridge 1981, 204-5) and was probably a typical mix for this region at this time.

The little qualitative information available comes from sites at some distance from Braughing. At Ware, the Football Club site excavation produced a significant amount of spelt wheat (no quantity given) recovered from a ditch and thought to have been grown fairly locally (Walker 1995). At the GlaxoSmithKline site a deposit of mostly spelt wheat and chaff, with some barley, was recorded, but again no figures were given (Humphrey 1999). The soils of the Lea Valley here are highly fertile - mostly soil 7 and 9 (Appendix I) and perhaps more evidence of cereal production during the Roman period will be unearthed in the future.

[239] This method would have required a second 'harvest' of the remaining straw from the field which would also then need to be dried for animal bedding or tinder.

The only recorded corn-drying ovens are those observed at Foxholes, just outside the 10 km case study area, (Reynolds and Langley 1979; Partridge 1989, 15-18). The corn driers have been linked to intensive 4th century agricultural activity here. Elsewhere, the rural site at Exnalls Farm has structures tentatively identified as barns, which have been mooted to have been used to store cereal harvest (Cooper-Reade 1991).

13.4.2 Roman Dorchester-on-Thames

Local soil around Dorchester-on-Thames - soil 7 (Appendix I) - is highly fertile and accommodates modern spring/autumn sowing of crops. During the Roman period this locality would have successfully supported crops of spelt or emmer wheat and some grain samples have been recorded locally, for example at Halfpenny Lane, Moulsford, (Ford 1990). At Round Hill, Little Wittenham, a flot sample was found to include grain and glumes of both spelt and emmer wheat although no figures are available. Emmer is thought to be rarely found this far west in Upper Thames Valley (Wessex Archaeology 2004), but does seem to appear in site records although distinguishing spelt from emmer remains requires expertise. Further charred grain samples are recorded from rural sites at Castle Hill, Little Wittenham, Appleford Sidings (Booth and Symmonds 2009); at Jubilee villa, Benson, where husks were found – perhaps evidence of milling (Pine 2005), whilst at Brightwell-cum-Sotwell the presence of chaff also seems to indicate on-site processing (Wilson 2008). In the town, there is some meagre evidence from the Hallidays site for ploughsoil dating from the 1st/2nd to the late 3rd centuries AD, which would indicate agricultural land use (Moore and Williams 2007). This evidence generally points to cereal crops being grown and processed at this time in this area.

13.4.3 Roman Ewell

The majority of the soil around Ewell is of low fertility (soil 6) but able to support crops of spelt wheat or oats (Appendix I). Settlements are likely to have exploited the range of local soil types. The villa site at Beddington, for example, is on poor soil (soil 22), but at a junction with other soils facilitating mixed farming. Small areas of moderately fertile soil (soil 18) might have been best suited to growing cattle feed. At the Lower Coombe Street site to the east of Ewell (Croydon) the grain assemblage samples represent a variety of grain crops threshed in the same area, with charred grains pointing to the prior application of heat. The inclusion of a variety of weed seeds from different environments also indicates crops harvested from a number of locations (Taylor *et al*, 2011, 202). The few grains gleaned from the Church Meadow site in Ewell reflect little more than agricultural

activity close by (Cowlard 2016). Overall, the Ewell area is unlikely to have grown cereal crops on a large scale, but apparently did produce a diversity of crops.

13.4.4 Roman Neatham

Neatham is similarly located in an area of low soil fertility (soil 6 and to a lesser extent 10); intensive crop rotation and manuring would have potentially allowed spring/autumn sown cereal crops to be grown. It has been mooted that arable land was cultivated during the Early Roman period mainly to the north of Binsted, switching to the south during the Late Roman period; more centrally located arable areas were used throughout the Roman period (Lyne 2012, 25). Allen believes that there was a general expansion in cereal cultivation in the Wessex region (2017, 165), nonetheless cereal production and processing evidence for the Neatham area is meagre. Only the site at Holybourne has produced significant samples of charred spelt wheat (seeds and glumes), extracted from several ditches and Pit 1007 (Powell 2008, 70), and barley. The latter thought to have been waste from the malting process and used for brewing (Trevarthen and Manning 2009, first section of report, 17).

13.4.5 Roman Staines-upon-Thames

The soil around Staines-upon-Thames is also mainly of low fertility (Appendix I) but potentially suitable for spring/autumn sowing of cereal crops. A number of excavated rural sites have produced grain samples from the Roman period. Evidence of scattered abraded tile and pottery to the north-west of the Town Island suggests that the alluvial soils here were planted and manured to raise crops (McKinley, 2004, 25). Water-logged samples from Thorpe Lea Nurseries, Egham, contained moderate amounts of spelt and abundant quantities of barley (Hayman 1992), whilst 45 samples from Kingsmead Quarry, Horton (Chaffey 2009), contained abundant amounts of spelt and barley. At the latter site there was evidence of burnt material apparently from cereal processing. Further samples of grain and glumes were found at Horton (Preston 2003) and Perry Oaks, Heathrow (Lewis *et al* 2006); these additionally included emmer wheat.

It has been suggested at the Harlington, Imperial Sports Ground site that activity on site appears to have been divided into two phases: the Early and Late Roman periods, with the implication that there was an economic decline affecting the community during the Mid-Roman period (Crockett and Nowell 1998, 4). It was also noted at this site that over the whole Roman period there was an increasing presence of chaff suggesting that the grain

harvest was brought to the site for processing, before being stored in pits (Crockett and Nowell 1998, 25-6).

Apart from the recognised field systems which may have been used for cereal crops or animal grazing (eg. at Southlea Farm, Datchet), few structural features have been found to link cereal production to processing. The Roman Rural Settlement Project lists only one corn drier (with charred grain) found within 20km of Staines-upon-Thames, at Coldharbour Quarry, Thorpe – to the south-west and across the Thames (Riccoboni 2006). However, there is a further pair of corn driers known at Harlington Imperial Sports Ground (Crockett and Nowell 1998). Here, environmental samples indicated an increase in the presence of chaff in association with charred grain samples through the Roman period, suggesting that grain was processed on site. The survival of significant amount of grain in some of the excavated pits indicates that cleaned grain was stored here (Crockett and Nowell 1998, 25-6).

13.5 Early Roman period

13.5.1 Roman Braughing

No specific data available.

13.5.2 Roman Dorchester-on-Thames

Table 13.1 Early Roman Dorchester-on-Thames and hinterland – relative amounts of grain recovered (Grey cells indicate no data available or very small quantity as stipulated.)

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Abingdon, Barton Court Farm	moderate	moderate	minor	moderate
Appleford	moderate		minor	minor
Appleford Sidings	moderate			minor
Benson, Jubilee Villa	minor			minor
Berinsfield, Mount Farm	abundant			minor
Berrick Salome	abundant	minor	minor	moderate
Brightwell-cum-Sotwell	moderate			minor

Spelt wheat clearly dominates the cereal samples from the Early Roman period rural sites (Table 13.1), but there is no grain evidence from this period from any of the Dorchester-on-Thames town sites with which to compare these findings.

13.5.3 Roman Ewell

Table 13.2 Early Roman Ewell – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Beddington, villa	moderate		moderate	abundant
Carlshalton, former Queen Mary's Hospital	abundant	minor		minor
Chessington (RAF), Mansfield Rd	abundant			moderate
Croydon, Lower Coombe Street	abundant		minor	moderate

There is no particular data available for the Early Roman town (Table 13.2) other than a supposed granary or malting house, for which the evidence is unclear, at the King William IV site (Orton 1997, 118). Activity on the sites tabulated appears to span AD 70-280.

To the east, charred grains found in Croydon (Taylor 2011, 198-199) and dating from the 1st to early 2nd centuries AD appeared to have characteristics of the fine cleaning in the last stages of cereal processing. Taylor believes the charring to be the result of drying in a corn drier, although none has been located here; the charring may have been the result of contact with a cooking hearth. Incorporated in the seed assemblages were weed seeds from very different environments (Taylor 2011, 202) suggesting that the assemblage was derived from a number of small scattered plots.

13.5.4 Roman Neatham

No specific data available.

13.5.5 Roman Staines-upon-Thames

Table 13.3 Early Roman Staines-upon-Thames – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
East Bedfont, Mayfield Farm	minor			minor
Heathrow, Terminal 5	abundant	minor		moderate
Horton, Manor Farm	minor			minor
Staines-upon-Thames, Central Trading Estate[240]	abundant	minor	abundant	abundant

At the Central Trading Estate site in the town of Staines-upon-Thames, charred grain samples from the 1st/2nd century AD survived in water-logged conditions along with evidence for hay, used as animal fodder or thatch (McKinley 2004, Table 9 S17). This site produced a wider range of grains than commonly found, including evidence of bread wheat (Table 13.3). This example is suggestive of a wider range of cereals being grown normally, but that ground conditions present archaeologists with a contracted picture as there is relatively little of the original Roman landscape available/likely to be available for examination.

Samples of charred grain and chaff (cereal unspecified) were extracted from pits and ditches at Mayfield Farm, East Bedfont (Jefferson 2003) and attest to on-site processing. Similarly, charred grain and chaff recovered from the Imperial College Sports Ground, Harlington, was found in association with the two 1st century AD corn driers (Crockett and Nowell 1998, 25-6). Just to the east of the town at Ashford Prison, Spelthorne, a new field system was developed between the late 1st century and the 3rd century (Carew 2003), although whether this was for arable or livestock farming is unknown. Nearby at Hengrove Farm a rectilinear post-built building 12m x 6m was newly erected in the 2nd century AD, but again the purpose (?aisled barn[241]/granary) is unknown.

[240] More than one assemblage (McKinley 2004, Table 9 S17)

[241] The uses to which structures identified as aisled barns were put in the Roman period were varied (domestic, agricultural, industrial), but likely to have frequently included grain storage (Morris 1979, 55-73).

13.6 Mid-Roman period

13.6.1 Roman Braughing

There is very little data relating to the Mid-Roman Braughing area. The observation made by Cavanagh and Noakes based on their work at the Grange Paddocks site (Bishop's Stortford) is however illuminating (2010). They regarded the landscape of this period to have been fairly open and largely cultivated (2nd to late 4th centuries), but noted that environmental samples included very little in the way of evidence for cereals such as wheat or barley (Cavanagh and Noakes 2010).

13.6.2 Roman Dorchester-on-Thames

Table 13.4 Mid-Roman Dorchester-on-Thames – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Abingdon, Barton Court Farm	abundant	minor	minor	minor
Appleford	moderate		minor	minor
Berinsfield, Mount Farm	abundant			minor
Crowmarsh Gifford			minor	

There is no cereal data from any of the Dorchester-on-Thames town sites. Grain samples from four rural sites are dominated by spelt wheat (Table 13.4) and at Berinsfield it was noted that by the end of the 2nd century AD the proportion of spelt wheat had increased to 70% of cereal grains (Lambrick 2010).

13.6.3 Roman Ewell

Table 13.5 Mid-Roman Ewell – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barely (hulled)
Carlshalton, former Queen Mary's Hospital	abundant	minor		minor
Chessington (RAF), Mansfield Rd	abundant			moderate

Again, there is no data available for Ewell itself, but two of the rural sites produced samples dominated by spelt grains with the addition of barley (Table 13.5).

13.6.4 Roman Neatham

There is no data available for this period. Although, an indication of crop growing in the local area in terms of marled fields (addition of clay/lime for fertiliser) was identified at Isington, pre-AD 250 (Lyne 2012, 32). Investigation of the villa at South Hay (Reynolds Hanger) produced an estimate of 65 ha of cultivated arable land and 12 ha of marled fields (Lyne 2012, 28). The labour intensive use for marl to improve the locally acid soil (Soil 6) would imply that there was a need to produce cereal for local consumption, rather than importing grain from another district.

13.6.5 Roman Staines-upon-Thames

Table 13.6 Mid-Roman Staines-upon-Thames – relative amounts of grain recovered

Site	**Spelt wheat**	**Emmer wheat**	**Bread wheat**	**Barley (hulled)**
Staines-upon-Thames, Central Trading Estate[242]	abundant		abundant	abundant

The only apposite data from this area is from the Central Trading Estate site in Staines-upon-Thames (Table13.6) and refers to charred grain collected from the floor of a building (Phase II AD 120-300) which, the author believes, may have been a grain store (McKinley 2004, 43).

At Coldharbour Quarry, Thorpe, a 'T' shaped corn drier has been posited, possibly in use during this period as it was constructed out of tiles reused from buildings dating between AD 50 and 250, but probably not until the Late Roman period (Riccoboni 2006, 18). Finds of large quantities of barley in the corn drier, along with other grains such as bread wheat and oats attest to the structure being used for a variety of grains, either for drying or to halt germination as part of the malting process.

13.7 Late Roman period

13.7.1 Roman Braughing

There is no data available for this area for this period.

[242] More than one assemblage (McKinley 2004, Table 9 S17)

13.7.2 Roman Dorchester-on-Thames

Table 13.7 Late Roman Dorchester-on-Thames – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Abingdon, Barton Court Farm	abundant	minor	minor	minor
Appleford	moderate		minor	minor
Moulsford, Halfpenny Lane	some			some
Wallingford, Cold Harbour Farm	abundant			minor

A T-shaped corn drier dating to the 4th century AD has been identified at Cold Harbour Farm, Wallingford (Vitolo 2009). Cereal samples from this site were dominated by spelt and to a lesser extent barley (Table 13.7), and included 1000 glume bases. As a large number of detached grain sprouts were also recovered, the author has suggested that the corn drier was being used here for both drying the harvest and malting grain for ale. A further Late Roman corn drier has been identified at Barton Court Farm (Miles 1984), which has also provided evidence for malted spelt grain, possibly for brewing. The rural site cultivated a variety of cereal crops judging by the carbonised remains recovered from the corn drier (Miles 1984, 24) and by the Late Roman period had become an established mixed farm.

There is no cereal grain data for the town, but there is evidence for crops being grown or livestock being raised close to the town walls of Dorchester-on-Thames in the 3rd century, in the form of a ditched field system (Gilbert and Ainsworth 2008). Within the town, the Bishop's Court SW site has produced evidence for a 3rd/4th century AD farmstead with two possible corn driers (May 1977).

13.7.3 Roman Ewell

Table 13.8 Late Roman Ewell – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Beddington, villa	abundant		minor	moderate
Carlshalton, former Queen Mary's Hospital	abundant	minor		minor
Kingston-upon-Thames, Skerne Road	abundant			minor

Again there are no data for Ewell town, but three rural sites continue to show the dominance of spelt grain in the recovered assemblages (Table 13.8).

13.7.4 Roman Neatham

Table 13.9 Late Roman Neatham – relative amounts of grain recovered

Site	Spelt wheat	Chaff	Emmer wheat	Bread wheat	Barley (hulled)	Chaff
Alton, Oceanic House	abundant	some	minor		minor	some
Frith End, Abbotts Wood	abundant		moderate		minor	
Frith End, Grooms Farm	abundant					
Neatham/Holybourne, Depot site	abundant				minor	

The Depot site on the edge of Roman Neatham, along with the Alton and Frith End sites continue to demonstrate the dominance of spelt in the archaeological record (Table 13.9) and an association with barley through this period.

13.7.5 Roman Staines-upon-Thames

Table 13.10 Late Roman Staines-upon-Thames – relative amounts of grain recovered

Site	Spelt wheat	Emmer wheat	Bread wheat	Barley (hulled)
Heathrow, Terminal 5	a b u n d a n t	minor	minor	minor
Staines-upon-Thames, 42-54 London Road	minor	minor		
Staines-upon-Thames, Central Trading Estate[243]	minor		abundant	minor
Thorpe, Coldharbour Quarry	abundant	minor	minor	moderate

Whilst the cereal grain samples from the Terminal 5 and Coldharbour Quarry[244] sites show typically dominant spelt wheat with minor quantities of the other grains, two of the Staines-upon-Thames town sites have produced samples with rather different profiles. Both samples included only minor amounts of spelt, but the Central Trading Estate site appears to be dominated by bread/free-threshing wheat in five contexts (Mckinley 2004, Supplementary material: Table 9). Whether this represents unusually favourable conditions

[243] More than one assemblage (McKinley 2004, Table 9 S17)
[244] A small corn drier has been identified here (Smith *et al.* 2016)

for the survival of bread wheat or a difference in consumer demand in the town, is question that may be answered by more data in the future.

13.8 Comment and discussion on cereal evidence

There is insufficient cereal data available, and in some cases none at all, to attempt to compare the small towns with the rural sites in their hinterlands, or to cross-compare case studies. Lack of data may be due to corn drying and large scale storage not being common activities within the small towns, or that cereal remains were not of interest or were overlooked by archaeologists excavating at town locations. The majority of grain assemblages which have been recovered are from pits and ditches, thus representing largely spoiled or lost material which has limited value for understanding the nature of consumption. In the absence of sufficient town/country data it is not possible to establish whether the towns obtained cereal from the surrounding countryside or grew their own on the land peripheral to the town. Despite these shortcomings, the following points can be justified on the basis of the data reviewed here.

Assuming grain survival in the archaeological record can be taken as cautiously representative of what was grown, spelt wheat can be said to have dominated cereal consumption in the small towns and countryside throughout the Roman period. A little emmer or free-threshing bread wheat has also been recorded. Certainly spelt wheat thrives in poor soils and apparently on the richer soils in the Upper and Middle Thames Valley region (Booth *et al* 2007, 281). It is possible that spelt wheat was traditionally dried for longer keeping (? in a corn drier) and that other cereals were dried outdoors and consumed sooner after the harvest. Differences in cereal processing would have rendered free-threshing bread wheat grains less visible in the archaeological record; these grains also survive best in (rarely encountered) water-logged conditions. Spelt amounts may be inflated because, as it is often hard to distinguish one preserved grain from another, the similarly shaped grains of spelt and emmer may be counted together as ‘spelt’. The malting process is also likely to have contributed to the survival of some wheat grains and barley. Barley was grown throughout the Roman period and eaten in bread, or as porridge, and malted for ale and for cattle/horse/mule fodder.

The identification of a variety of weed seeds and different cereal grains in assemblages from different contexts may represent, as commonly thought, the remains of successive drying events. However, it is also possible that this was the result of different crops being

grown in close proximity either as intercropping, strips or blocks of crops, or crops grown in overlapping succession. Such arable practices, as opposed to farming large fields dedicated to one crop, would have protected against pests, produced good yields, and been a logical approach to farming on a small, household scale.

In Roman Southwark it was noted that the recovered cereal assemblages were clean[245] and that weed seeds were from the later stages of crop processing (Cowan *et al.* 2009, 113), similar to assemblages from the City (Drummond-Murray and Thompson 2002, 249). A lack of waste material, valuable for animal bedding, feed, packing and tinder, was noted. Thus, the grain supply here (e.g. site BGH95) was either processed outdoors and stored clean – contra Hillman (1981) - or brought in from some distance (Drummond-Murray and Thompson 2002, 247). In regard to the idea that the case study towns supplied London settlements with cereal, no evidence has been found for any of the small towns (Ewell nearest to Southwark; Staines-upon-Thames and Braughing nearest to the City) being involved in a supply chain: no granaries or store rooms, or any evidence for the large scale threshing which would have been needed. Threshing floors have been problematic to identify (Allen 2017, 49)[246]; only a very few have been tentatively reported on farmstead or villa sites[247]. Nonetheless, the presence of more than one type of cereal crop along with varied weed seeds[248] in assemblages does suggest that local differences in soils and environment were exploited by town residents and farmsteads as part of a mixed farming approach. As gardening and agricultural tools are often common finds on sites in Roman London this may attest to residents farming land on the boundaries of the settlement.

Evidence for corn driers in this study tends to be from the Late Roman period, but examples are present for the Early and Mid-Roman periods too, which fits the general accepted temporal pattern (Van der Veen 1989, 302). The reason for the increase is unknown, but where this trend is noted in the East Midlands Allen has attributed this to cereal being more intensively farmed[249] (2013, 32). Corn driers prove elusive to date in

[245] Meaning that the grain was processed elsewhere and transported into the settlement, ready for milling.
[246] These are difficult to identify in the archaeological record and much reliance is placed on descriptions relating to other countries in the Roman Empire, gleaned from writers such as Varro and Columella, and summarised in Morris (1979 23-28).
[247] This may in part be due to the concentration of the excavation of core buildings at rural sites (Willis *pers. comm.*)
[248] Stevens points out in his report on charred grain derived from different features (not a corn drier) from Dorchester hospital (Dorset) that preserved weeds seeds indicated that the cereal crops had been grown variously in wet lowlands and dry chalky upland areas close to the town (1-2 (no date).
[249] The increase may also have been a response to a rise in demand for biproducts such as ale or malt vinegar for pickling fruit and vegetables.

any of the five small towns, although early excavations may not have detected less formal domestic structures. This infers that either grain was brought into the town processed and ready for storage, or that grain was grown on individual plots by the townspeople and dried naturally in the field or under cover. As with the production of meat discussed earlier, it does seem most likely that the small towns produced their own food on land close to the settlement.

Quernstones

14.1 Introduction

The principal method of milling grain to make flour for bread, probably a staple food of the diet in Roman Britain, was by using hand-operated quernstones, following ancient tradition. The flour produced did not store well for long, so corn needed to be milled on a daily basis for baking into loaves of bread. Besides flour, quernstones would have been suitable for grinding grain more coarsely for porridge or pottage, and for grinding other foodstuffs such as spices and non-food material to extract dyes.

Not all regions of Britain had suitable stone for use as quernstones. Where such raw material was available, skilled workmanship would have been necessary to quarry and fashion the finished product. Quernstones surplus to local need could then have been traded, for money or goods, with consumers in towns or rural areas. Brindle has concluded from data collated for the North of Britain that quernstones are at least as common finds on nucleated as farm sites[250] (2015). The data for the distribution of quernstones in the five case study areas is reviewed in this chapter with the aim of determining whether the stones were marketed through the towns.

Quernstone finds from small towns and rural settlements are predominantly of domestic hand-operated mills of two types: rotary querns[251] (including a few beehive[252] forms) and saddle querns[253]. Where more than one type of quernstone has been found on a site from

[250] Querns present of ~ 43% farms (no. 30) and ~ 48% nucleated sites (no. 114, including small towns)

[251] Rotary querns comprised of two, more or less flat, disc-shaped stones (in the earlier Roman period the upper stone was often 'domed') of approximately 30 cm diameter with the grinding surfaces of both the upper and lower stones having a fla working-plain often with an arrangement of radial or harped grooves, though these are often absent when recovered archaeologically through wear. The upper stone normally had a deep insert to take a handle which was used by the operator to fully rotate, or swing the upper stone back and forth (Mould 2011, 170), over the lower one. Two types are clearly illustrated by Curwen (1937, Plate II, 5 and 6): one from the 1st century with a radial groove for the handle and one from the 2nd century with a rectangular slot for a vertical handle. The upper stone had a chute through which the grain was fed so that it fell between the two grinding surfaces. These querns gradually became larger, thinner over the course of the Roman period and were sometimes without grooves (Curwen 1937, 143; Shaffrey 2003; Mould 2011). By the Late Roman period they were mass-produced at specialist locations, adjustable and more efficient at grinding corn than beehive and saddle querns.

[252]Beehive querns were an early form of rotary quern. They consisted of a heavy upper stone (hand stone) resting on a lower stone (quernstone); the former had a domed shape like a beehive – hence the name. A handle inserted into the top stone allowed the mill to be turned so that grain was fed into a hole was crushed as it fell through between the sloping faces of the two stones. Beehive querns would have been heavy to operate producing coarsely ground flour from wheat or other types of grain. For a full description see Curwen (1937, 148).

[253] Saddle querns with a large lower stone, hollowed on the upper surface to form a shallow basin to hold the grain. A smaller cylindrical or round hand stone (rubber) was used to pound the grain. This action worked particularly well on malted grain.

the same period, this would suggest that they had different uses; shaped for grinding different grains or for rough meal or finer flour (Mould 2011, 170). Less suitable, cheaper stone would have produced poor quality gritty flour.

Although distinctive, whole and fragmented quernstones have only been systematically recorded in archaeological reports over the last 30 years. One reason for this is that despite their original use in a domestic context, they are rarely excavated in situ; as useful stone material they have been reused and recycled. Broken quernstones were not usually discarded though, any suitable fragments were converted into whetstones, as noted by Mould (2011, 170); data for these artefacts has not been included here. Worn querns and broken pieces were reused as building material incorporated into foundations, walls and, as Mould notes, doorsteps. Occasionally discarded quernstones and broken pieces have been recovered from supposed ritual deposits in wells or pits (Mould 2011, 170), but the most common source in this study has been 'small finds' from pits and ditches (Appendix N).

Quernstones are difficult to date closely (Curwen 1937, 144; Shaffrey and Roe 2011, 316; Green 2014, 2) particularly as many would have been handed down from one generation to the next until too worn to be of further use for grinding. The earliest rotary querns used in Britain may date back as far as the 5th century BC (Peacock and Cutler 2011, 79) although they were widely used in the Roman period particularly between AD 1-150 (Green 2014, 2). Where context is unknown or unhelpful, the usual means of dating quernstone finds is by reference to the duration of the quarrying of the particular stone type, where this is known. In many instances no date has been ascertained and the find simply recorded as 'Roman'.

14.2 Millstones

In addition to quernstones, there is uncertainty over the extent to which millstones were also in use in small towns in this period. These large grinding stones could weigh more than 50 kg and exceed a diameter of 50 cm (Green 2014, 2); they would have required donkeys, slaves or running water (wheel) to turn them. Millstones would have been operated along the lines of those known from Roman literature[254] and from the archaeological remains found in bakeries at Pompeii (Peacock 1989). Shaffrey believes they were in common use over the entire Roman period (2015, 1, 72), although Green favours sites established after AD 100 (2014, 2) and Brindle argues for the Late Roman

[254] Pliny the Elder *Naturalis historia* XVIII 23,97 ; Cato the Elder *On Agriculture* XXII,3-4

period (2017, 72). Curwen observed that mills were more characteristic of sophisticated urban communities[255] than of lower status rural sites (1937, 140) and were recovered from only 5% of the total number of rural sites recently surveyed[256] (Brindle 2017, 72). Shaffrey's assessment however is that, 'Intensive milling occurred on a variety of sites including small and large towns, villa sites, rural settlements and high-status sites' (2015, 72). Whilst whole and broken millstones have been recorded in Britain (Shaffrey 2015, Appendix 2), very few mill sites have been confirmed. There is a trend for any slight evidence, usually millstone fragments, to be mooted as evidence for a mill site and the centralised processing of grain, at least at a local level. Shaffrey, for example, in her analysis of quern material from Ewell (2017, 261), discusses at length millstone fragments[257] excavated from the King William IV site as an indication of a mill on the Hogsmill stream, from very meagre evidence. Apart from this example and a possible millstone fragment at Neatham[258], there appears to be no evidence for any kind of mill operating at any of the five case study towns.

14.3 Quernstone literature

Literature devoted to Roman quernstones in Britain had its origin in Curwen's work of the late 1930s. This paper concentrated on identifying and describing different styles of quernstones and how their development related to the cultures that used them. Pertinent here is that he claimed that grooved querns appeared to be more common in towns than on rural sites, something he put down to the expense of this specialised surface being more affordable to townsfolk and villa owners (1937, 145). Peacock's work on Lodsworth stone appeared in 1987, followed by a long hiatus until the turn of the century and Shaffrey's investigation of Old Red Sandstone querns (2006). Shaffrey's interest developed from work on the rotary querns discovered at Silchester (2003) and she continues to advise on quernstone finds recovered on recent excavations (e.g. Stansted and Ewell) as well as contributing papers to collaborative publications (e.g. 2011). Most recently Green has produced a number of informative studies: Hertfordshire Puddingstone (2011; 2016); silcretes (2016); with Peacock on Worms Heath Puddingstone (2014); a survey of LIA and Roman period rotary querns and millstones found in London and South East England

[255] Silchester to date has not produced any evidence for centralised milling, having no suitable river (Shaffrey 2003, 163) although undiscovered donkey/oxen/slave –driven mills should not be ruled out. The total number of millstone fragments for London sites only amounts to 10 (Shaffrey 2015, 80-81).
[256] 18 % of the finds were from roadside settlements, 16% from 'villages' and 15% from villas (Brindle. 2017, 72).
[257] The fragments are not mentioned in Orton's report (1997) and the data source is unclear.
[258] Included in Appendix 2 (Shaffrey 2015, 81)

(2014). In contrast to the early work of Curwen, Green's interest lies with the types of stones selected for quernstone manufacture and their subsequent distribution in the landscape, particularly useful for this present study. One suggestion made by Green is that if querns were normally distributed in a rough state then this might imply that finishing and grooves were applied at the receiving site (Green *et al.* 2016, 359). No evidence of this work has yet been observed at town excavation sites.

In the literature, quernstone distribution patterns are presented demonstrating the spread of these finds in relation to the point of extraction (quarry site). Distribution maps unremarkably show that the greater the distance from the source, the fewer the number of quern fragments found. This approach reflects that employed by ceramic distribution studies carried out by Hodder and Orton in the 1970s, based on theoretical concentric rings around the point of origin within which finds densities are measured: 'provincial mean site-density' (Allen 2017, 97-8). This simple correlation, whilst useful, does not contribute to our understanding of how the distribution of the quernstones was organised, the means by which they were transported or whether they were centrally marketed. Most studies have preferred to concentrate on defining different forms and pin-pointing the origin of the stone. This present research differs in that it considers quernstone distribution from the opposite point of reference: what was available to the consumers of the five case studies and whether these small towns acted as market centres for this commodity?

14.4 Common quernstone distribution patterns for Roman Britain relevant to the five case study areas

Six basic types of stone are most relevant to this review: Mayen Lava, Puddingstone, Old Red Sandstone, Lower Greensand, Millstone Grit and Sarsen. Lengthy exposition of the different stone sources and associated quernstone industries supplying the south of Roman Britain (Figure 14.1), is not given here as it is assumed that the reader has some knowledge of this type of find, although it has been thought useful to provide a brief summary in the chapter appendix (Appendix N). The current body of knowledge on quernstones has been invaluable in regard to observations about the distribution patterns of these artefacts, affording a basis on which to compare the finds which might be expected in the case study areas with actual recorded finds. The main objective has been to discern whether the small towns played a role in marketing quernstones.

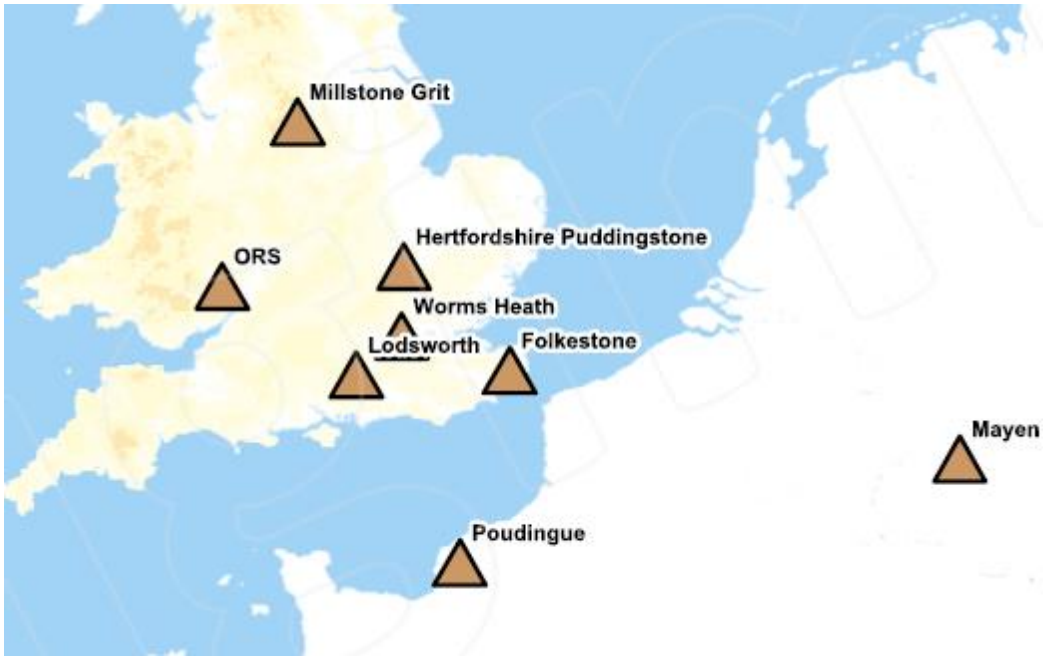


Figure 14.1 Location of quernstone extraction sites in Roman Britain and northern Gaul relevant to this study (source: author) © Crown Copyright and Database Right 2017. Ordnance Survey (Digimap Licence)

14.4.1 Mayen Lava

Characteristically Mayen Lava (see Appendix N) quernstones were comparatively light and flat, readily stacked and had excellent milling qualities; well attested on military sites these became increasingly common on civilian sites and geographically widespread (Bird 2016, 173) [259]. Lava stone exported to Britain most likely travelled down the Rhine River to enter the country via the closest ports: *Londinium*[260], where the majority of imported querns were from this source, and those in the Colchester region of the East coast (Green 2014, 16; Bird 2016, 173) which has also revealed high numbers of Mayen quern fragments. It is not known how the import and distribution of Mayen quernstones was organised, but it might be expected that examples be found on sites in southern and eastern England including the five case study towns here, although they can disaggregate and the resulting fragments can be difficult to recognise.

[259] Although Shaffrey considers them Early Roman - see Silchester discussion below.
[260] For example at the No. 1 Poultry site (Williams and Peacock undated).

14.4.2 Puddingstone

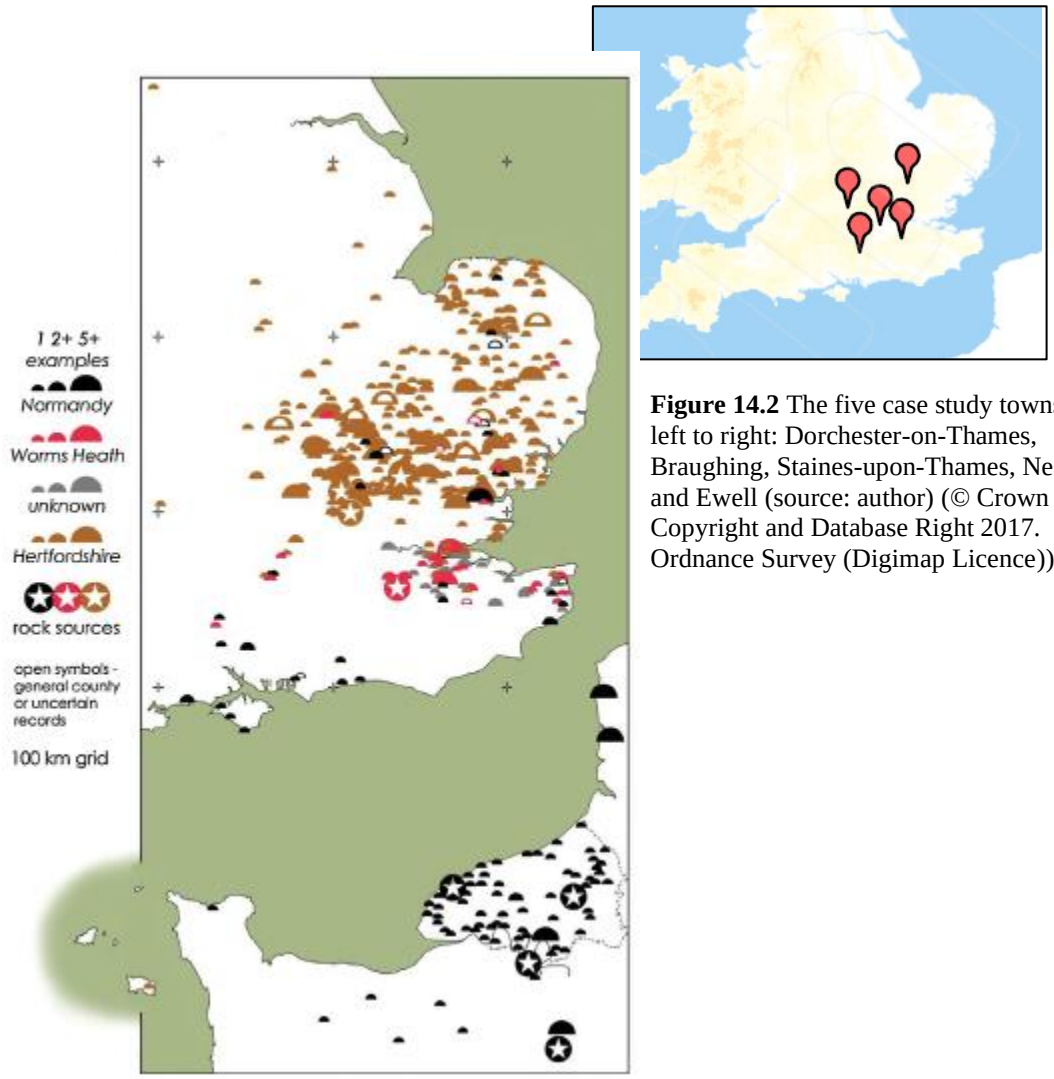


Figure 14.2 The five case study towns from left to right: Dorchester-on-Thames, Braughing, Staines-upon-Thames, Neatham and Ewell (source: author) (© Crown Copyright and Database Right 2017. Ordnance Survey (Digimap Licence))

Figure 14.3 Distribution of Puddingstone finds: Normandy (Poudingue), Hertfordshire and Worms Heath (after Green 2015, *Fig.* 1, 350).

14.4.2.1 Hertfordshire Puddingstone (HPS)

The distribution area for HPS querns is largely confined to East Anglia[261] and as the map above shows (Figure 14.3) few have been found to the south of the Thames River (Green 2014, 14; Green 2016, 350 *Fig.*1). Green notes the distinctive grooved querns found across East Anglia and the Essex coastal margin (2011, 144). Temporal distribution points to

[261] As a result of the detailed stone analysis conducted by Green and Peacock it is now clear that some Puddingstone fragments in this area are not from Hertfordshire, but imported from France probably during the LIA, http://www.sal.org.uk/fundraising/research/pudding/ [Accessed 14.3.2014].

these quernstones being most abundant during the second half of the 1st century AD; before being discontinued by AD 150 (Green 2016, 353): the Early Roman period.

14.4.2.2 Poudingue

Poudingue stone was exported from the north coast of France and finds in Britain are largely confined to the southern counties, although some examples have been identified further north, in Hertfordshire for example (Green 2014, 14-13). The location of finds of this stone can be seen in Green (2014, 3, *Fig.* 1).

14.4.2.3 Worms Heath Puddingstone

The majority of the examples of quernstone fragments of Worms Heath Puddingstone stone seem to be concentrated to the east of the quarry site at Warlingham in Surrey (Green 2016, 350 *Fig.*1), as far as Canterbury in Kent. This however, may have a bearing on the survival of the stone, rather than commercial distribution (*ibid*). Competition from superior quality HPS during the Early Roman period is thought to have ended the quarrying at Worms Heath.

14.4.3 Old Red Sandstone (ORS)

Many fragments of ORS quernstones have been found in contexts dating to the 4th and 5th centuries AD, by which time distribution had spread east to reach the south coast of England (Shaffrey 2006, 66). Shaffrey claims that there is evidence that 'querns were being distributed through town centres and a market exchange system' (2006, 68). This 'evidence' refers to concentrations of quernstones in some towns, such as Cirencester and Wanborough, but she concedes this may denote usage rather than organised storage for wider distribution of these items. Shaffrey's *Figure* 3.1 map of all the quern find sites (*ibid,* 17) appears to show concentrations not necessarily corresponding to market centres and their hinterlands. Furthermore, *Figure* 5.1 (*ibid,* 50) shows that towns, nucleated settlements and villa sites have all produced high numbers of ORS querns which perhaps indicates a less concentrated distribution pattern than Shaffrey has claimed. On the basis of the map of ORS quern distribution finds (Figure 14.4), the small town of Neatham would be predicted to fall within the local site density of three querns per 25 square kilometres, Staines-upon-Thames and Dorchester-on-Thames possibly within a density of one per square, whilst Braughing and Ewell appear to be too far east to have used querns made of this type of stone.

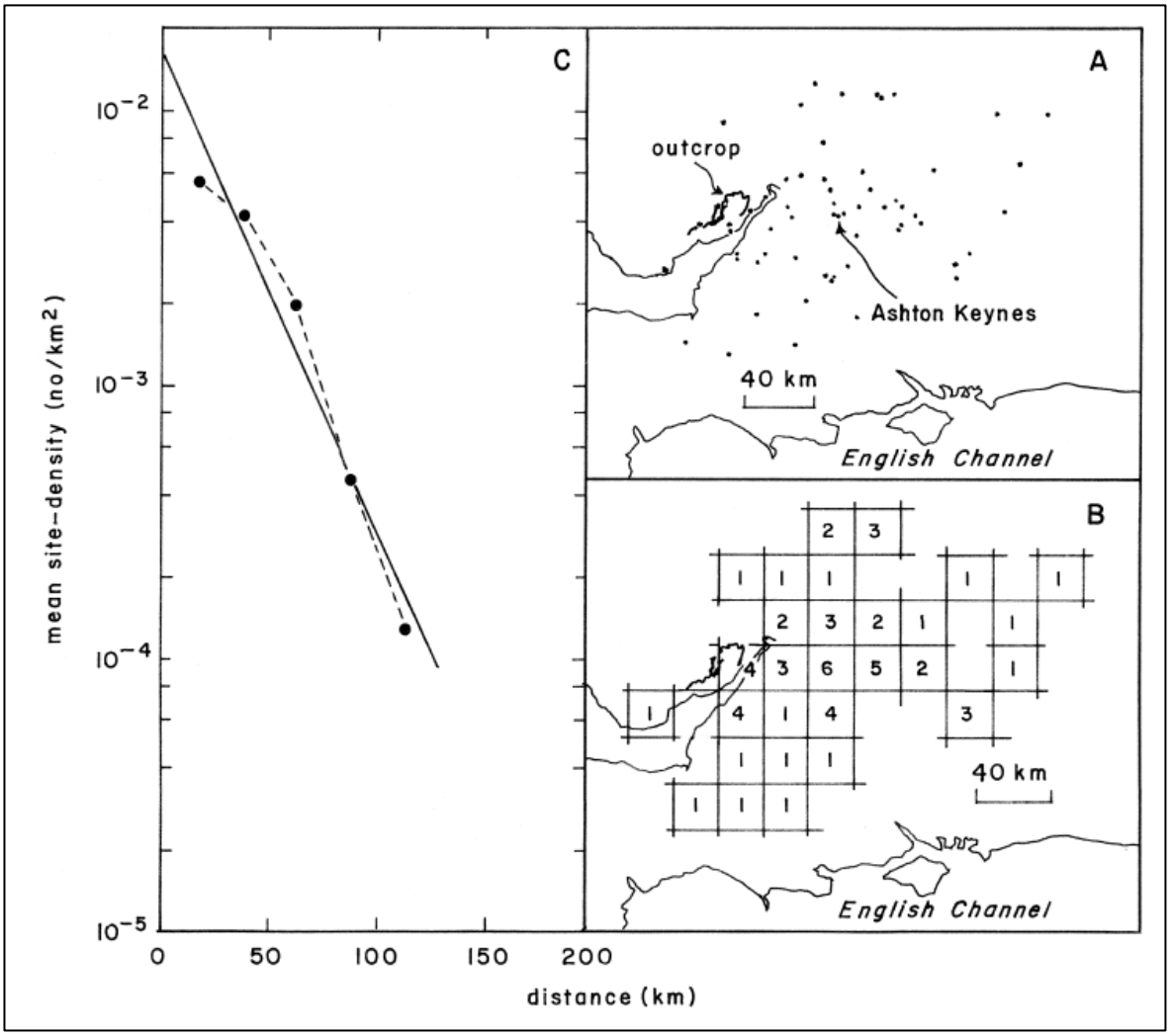


Figure 14.4 Allen's presentation of Shaffrey's (2006) ORS data showing: C - the drop in mean find site density over distance from Ashton Keynes, A – distribution map and B – local density of finds/ 25km² (Allen 2015, 99,*Fig.* 1B)

14.3.4 Lodsworth (Lower Greensand)

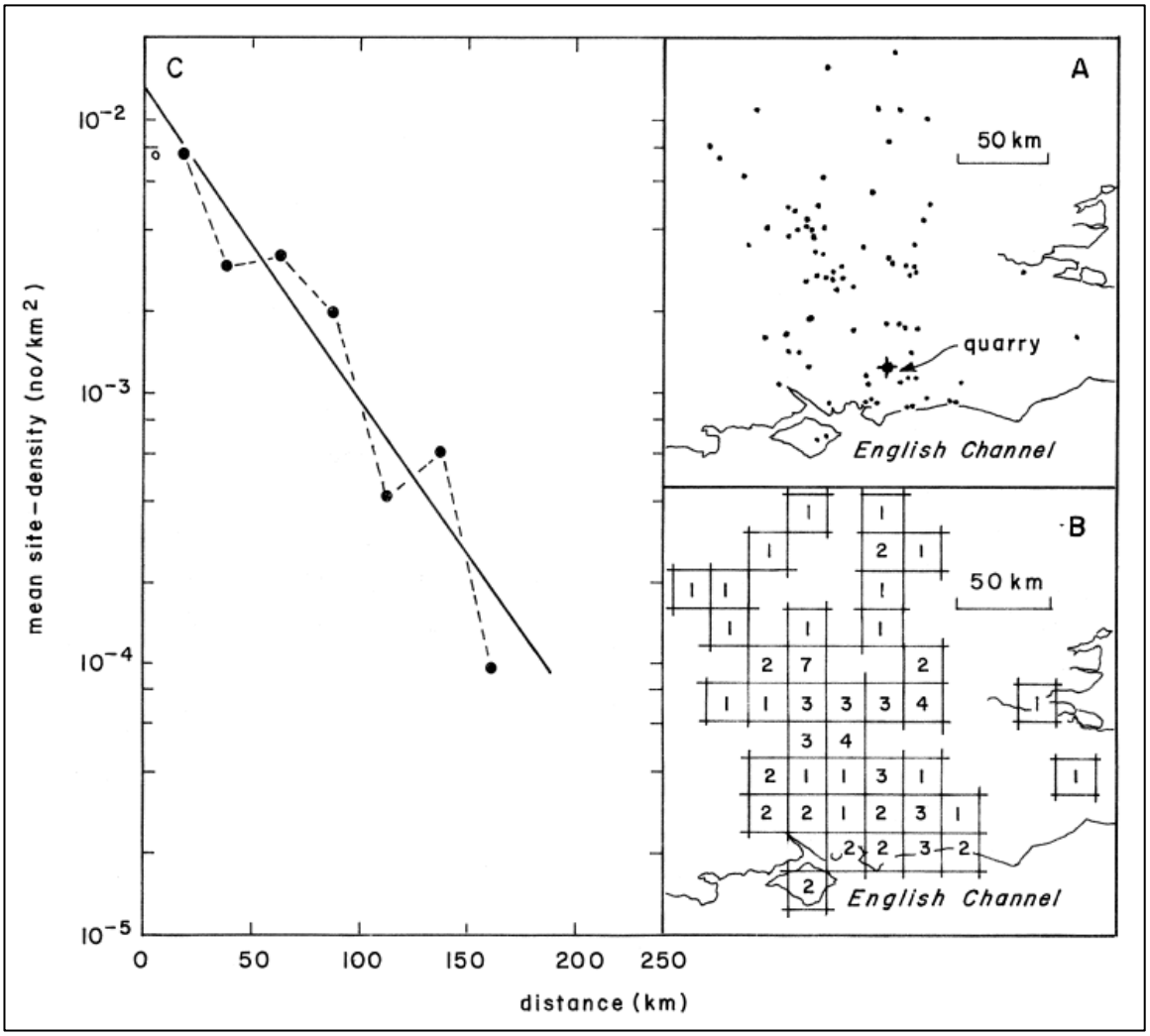


Figure 14.5 Lodsworth stone: C - reduction in mean find site density with increased distance from Lodsworth, B - distribution map, B - density per 25km² (Allen 2015, Fig. 4B, 102).

The distribution of Lodsworth quern finds is, according to Allen 'spotty' (2015, 102), although depicted on a map (Figure 14.5) would appear to be defined by a broad band extending northward into the Midlands and southward to the Channel and the Isle of Wight. The distribution pattern is generally well-known (Shaffrey and Roe 2011; Green 2014) and appears to be connected to the main river systems running northward: the Arun, the Wey, the Wray, the Kennet and the Thames (Shaffrey and Roe 2011, 315). On this basis and according to Figure 14.5: C, Roman Neatham might be expected to fall within an area of finds totalling three or four Lodsworth querns per 25km²; Staines-upon-Thames perhaps four, Dorchester-on-Thames possibly one; these figures are in contrast with a higher density of finds in the Upper Thames Valley (Shaffrey and Roe 2011, 318; Allen 2015, 103). Accordingly, no Lodsworth querns are expected to be found at Ewell or Braughing.

14.3.5 Millstone Grit

The main distribution area appears to extend south and east from sources in central and western Britain, certainly as far as Essex where six examples of Millstone Grit quernstones were found at Stansted (Shaffrey 2009, 3) and those at 1 Poultry, London (Hill and Rowsome 2011; 453). Potentially then, Millstone Grit quernstone fragments might be recovered from the Braughing and Dorchester-on-Thames areas.

14.3.6 Sarsen

Locally sourced sarsen stone boulders appear to have been fashioned into quernstones for use in the Braughing and Staines-upon-Thames areas. Further discussion can be found below.

14.5 Silchester as a measure of quernstone finds at a large urban centre

The quernstone profile of Silchester, a large town and *civitas* centre connected by road to both Staines-upon-Thames and Dorchester-on-Thames, serves to illustrate the range of different querns which have survived in a large urban centre. Generally to date, Silchester querns have been found to be of three main types of stone: ORS represents half of the finds, Mayen Lava accounts for one fifth of the total and Lodsworth (probable identification) another fifth, and together representing the earliest on site; the remaining fragments are of sarsen and other Greensand (Shaffrey 2003, 146). The Lodsworth finds have been dated to the1st-2nd centuries AD, ORS to the 2nd and 3rd centuries AD, with the Lava undetermined.

ORS quernstones are commonly found on Roman sites in the Silchester area, but not in such a high proportion (Shaffrey 2003, 150), contrary to Lava quernstones which are not known in the area (*ibid* 150), even though they tend to be Early Roman and associated with military and urban sites (*ibid* 155). Shaffrey has argued that quernstones were probably brought to the town by road as there is no alternative river access, although the Lava quernstones might reasonably have been transported at least part of the way along the Thames River (*ibid* ,159-60). The temporal switch from Lodsworth to ORS may have been down to increased production of ORS distributed eastward along with smelted iron and other materials from the Forest of Dean, rather than driven by a change in demand (Shaffrey 2003, 162-3). Shaffrey has also noted that no quernstone fragments at Silchester

appear to have been acquired from north of the region, although recent research on Insula IX has produced a few examples of Millstone Grit and HPS (Durham 2016).

The implication from the findings at Silchester is that Mayen Lava distributed through *Londinium* would almost certainly have passed through Staines-upon-Thames and likely to have reached the other four case study areas. In contrast, the strong west to east distribution of ORS imported to Silchester would have have been unlikely to have made an impact on the composition of assemblages of any of the small towns investigated.

14.6 Review of the case study small towns and their hinterlands

14.6.1 Roman Braughing

It follows from the above discussion that Mayen Lava, HPS, Poudingue and Millstone Grit quernstone finds might reasonably be expected on intervention sites, in or close to, Braughing. The data is however very sparse in this respect and to the author's knowledge no examples have been recorded within the small town; probably due to the dated nature of many of the archaeological records or the absence of finds due to reuse of the stone for construction. Due to the lack of evidence from Roman Braughing it is not possible to compare the town with nearby settlements or give closer consideration to any role the town played in the marketing and distribution of local or imported quernstones.

Of the four sites with data (Appendix N: Table N.1), that at Bowl's Dell (Colliers End) is the location of one of only two known HPS extraction sites[262]. This site was located about 4 km to the south of the small town and beside Ermine Street. Roughly worked quernstones were apparently moved downhill to the roadside (Isobel Thompson, *pers. comm.)* from where they could be loaded into carts for distribution. These rough quernstones would need to have been finished before use but it is not known whether this took place near the quarry or elsewhere. The site appears to have been worked throughout the Roman period (Lovell and Tubbs, 2006), although recorded finds tend to be associated with the Early Roman sites.

If the HPS quernstones were transported along Ermine Street, they may have at least skirted Roman Braughing as examples have been found further north at Baldock (Stead and Rigby 1986) and Great Chesterford (Medlycott 2011). A number may have been

[262] There are other known outcrop sites in Hertfordshire, but not necessarily with certain quarries, such as Radlett and Hadham (Lovell and Tubb 2006, Fig. 2, 186)

marketed in the small town by the quarrymen in exchange for money or goods[263]. Such informal trading is unlikely to have left any evidence in the archaeological record as they were then moved. Although about one third of the quernstone fragments recovered from the small town of Roman Baldock were of HPS (Stead and Rigby 1986), they were much less in evidence to the west at *Verulamium* and only a few fragments of this material have been recorded in the hinterland of Braughing at Brent Pelham and Hormead (Appendix N: Table N.1) or beyond the study area, for example at Boxfield Farm, Chells (Williams 1991). Quernstones of this local stone appear to have supplied local rural sites and those to the north of Braughing, few, if any, appear to have been traded south to Ware, or on to *Londinium.*

Apart from natural outcrops, HPS is found in the form of surface erratic boulders, particularly in nearby Essex. The 200 plus quernstone fragments found in Essex may have been fashioned from locally obtained erratics, rather than obtained from the Hertfordshire quarries. In fact these may not be HPS at all but imported from Gaul. Recent research by Green and Peacock (2011) has analysed Roman rotary querns from the Seine-Maritime region of Gaul concluding that the fossils contained in French Puddingstone (Poudingue) quarried near Rouen[264], Evreux and Fécamp on the Normandy coast can be clearly distinguished from British stone[265]. This advance has been used to show that the quernstones found at Elms Farm in Essex, for example, included both HPS (for the period: pre-conquest to AD 160) and those composed of French Puddingstone (*ibid*). There may have been a link between the import of French Puddingstone querns into the Trinovantian-Catuvelluanian region of pre-conquest Britain and a small migrant population from Roman Gaul thought to have established a community and to be buried at Skeleton Green on the western edge of Roman Braughing (Partridge 1981). Skilled quarry workers from Gaul may have been part of the workforce exploiting the HPS outcrops, attested to by similarity in quern forms and manufacturing techniques (Green 2011, 143). A similar argument has been posited in relation to the Worms Heath[266] quarry in Surrey, (Green 2014, 10) supposedly part of an Early Roman expansion of the Gallo-Belgic quernstone industry.

[263] The Greek writer Xenophon records in *The Persian Expedition* that in marching through the Arabian Desert near the Euphrates he noted that 'the inhabitants used to quarry by the river and manufacture stones for grinding corn; they took them to Babylon to sell and lived on the food they bought with the proceeds.' (Warner 1949, 76).
[264] Location shown in *Fig*. 2 (Green 2014, 4).
[265] Green elaborates further on the location and composition of Poudingue stone (2014. 10).
[266] Location of stone on geology map of south-east England – see Fig 1 (Green 2014, 3).

The identified quernstone fragments from Ware (Appendix N: Table N.1), 10 km to the south of Braughing and at the junction of the Ermine Way and the Lea River, were Mayen Lava. Similar rotary querns are known from other sites in Hertfordshire including Boxfield Farm, where the majority of the 70 fragments recorded were of this stone (Williams 1991). Probably imported through *Londinium* these querns appear to have filtered into the countryside initially via the Thames River system.

Fragments of Late Roman millstones[267] (probably from water mills) have also been identified at Ware, worked from Folkestone Greensand[268] (Green 2014, 7). Green notes other examples derived from the same stone on Roman sites near Bishops Stortford, north of Ware, which seems to continue a distribution pattern traced to the LIA. This distribution favours the Stort/Lea river tributaries northward from south of the Thames River, effectively bypassing Braughing.

14.6.2 Roman Dorchester-on-Thames

Quernstone finds from the within the town of Dorchester-on-Thames are few (Appendix N: Table N.1): fragments of Mayen Lava quernstones from the Early period site at Old Castle Inn, two larger pieces (possibly ORS) from Worcestershire/Warwickshire from Beech House (perhaps imported with Droitwich salt), and a few unidentified fragments. The lack of evidence, compared to Abingdon and Berinsfield, may, as for Roman Braughing, be the result of early archaeological interventions, or may point to 'lost' quernstone fragments reused in post-Roman buildings such as the Saxon cathedral. Alternatively, if corn was not commonly ground by individual town households but purchased from a mill this might also account for the profile, although the earliest known water mill here dates to the 11th century AD.

Evidence of Old Red Sandstone querns at Berinsfield and Little Wittenham would certainly indicate links with the west of Britain; a small number of finds might be anticipated in this part of the Thames Valley. The Abingdon Reservoir Sites 110/416 also produced fragments of Arkose Sandstone from the west of Britain. Wider geographical connections were noted by the excavator at the site of Mount Farm demonstrably by quernstone fragments from a number of sources, which was felt particularly to reflect the location of Dorchester-on-Thames as a central place in this part of the Thames Valley (Lambrick 2010, 106). Fragments recorded in the rural hinterland included Lodsworth

[267] The source of this information is not clear and therefore no details have been included in Table 1.
[268] Probably the more durable Bargate stone from Surrey.

stone from Sussex and HPS, as well as local Culham Greensand (Appendix N: Table N.1), indicating that this site was able to obtain querns not only from the west but from other regions in Britain, although as they are not well-attested in the town there is no evidence that they were marketed from here. The modest representation of Mayen Lava quernstones (mainly Barton Court Farm) suggests limited economic links with ports in *Londinium* and the east of Britain.

14.6.3 Roman Ewell

Quernstones of Mayen Lava are prevalent in the data for sites in Roman Ewell (Table 14.3)[269] although rarely with attendant dates. In some cases the number of fragments is not recorded in the source material, as for example at the King William IV site (Orton 1997, 106, 115). Mayen Lava quernstones, imported through *Londinium* appear to have been dispersed via travellers along the roads running south across the Weald, certainly along Stane Street and through Ewell (Pemberton 2011, 246). The residents of Roman Ewell apparently took advantage of opportunities to obtain Mayen Lava quernstones from road traders, but there is no evidence to suggest a centralised enterprise marketing these goods to rural sites.

Stane Street may also have provided a land route bringing Lodsworth Greensand quernstones from the quarry site in Sussex northward to *Londinium*: stone fragments of this origin have been found in association with the St Mary's Church intervention sites (Appendix N: Table N.1)[270]. Two fragments have been dated to the Mid-/first half of the Late Roman period (Pemberton 2015, 17). Despite the latter finds, Greensand quern fragments generally have rarely been found in the town, but this may simply be the result of poor survival or lack of adequate recording. The Bargate Sandstone[271] fragment (Appendix N: Table N.1) would most likely have travelled north from the nearest source close to Dorking, also via the Stane Street route. Fragments of ORS and Millstone Grit from the west and north respectively, have been found in the town and probably also represent ad hoc roadside trading rather than direct imports from source.

Of the rural settlements close to Ewell (Appendix N: Table N.1), the road system again seems to relate closely to the type of quernstone used during the Roman period. At the Croydon site the presence of Mayen Lava and Sandstone fragments point to the location of

[269] Shaffrey's Table 1 (2017, 261) includes additional finds not contained here, such as that from Spring House (in preparation).
[270] Ewell in this table may be compared to that recently published by R. Shaffrey (2017, 263, Table 2).
[271] Bargate Sandstone is usually taken to have been extracted during the 4th and 5th centuries AD.

the settlement, not on Stane Street but on another radial road: London to Portslade. Similarly the Sandstead site apparently acquired a quernstone of Worms Heath Puddingstone[272] from nearby Warlingham, via the same road. Cumulatively, this evidence emphasises the importance of the road system for trade, but hints at piecemeal trading perhaps on an individual household basis rather than indicating that Roman Ewell played a centralised marketing role.

14.6.4 Roman Neatham

Millett and Graham allude to 'numerous querns' found during the 1969-79 excavations across the small town of Neatham as evidence of local domestic use rather than wholesale processing of grain (1986, 157). However, the data accessed for this study area records a modest 15 fragments (some of which come from the same querns). These are discussed by Timby and Peacock, alongside a number of whetstones also found (Millett and Graham 1986, 132-138). Whilst whetstones are not a focus of this study, it is noted that these were made of Greensand or Sandstone, and possibly represent reused quernstone fragments. Although the stone sources are not specified in the literature, both are locally available from beds in this part of Hampshire and the Weald. Only at the Holybourne Depot site on the edge of Roman Neatham, were any fragments of the usually common Mayen Lava found, perhaps reflecting the distance (around 80km) from *Londinium.* None of the sites apparently included any Lodsworth fragments which is unexpected given the location of the town in relatively convenient relation to the quarry and to Silchester, but perhaps this is because there is no direct road link. The limited amount of data does not provide enough information for the basis of any comment about the potential role of Roman Neatham as a centralised distribution point for quernstones to nearby rural sites, and on present evidence this seems unlikely.

There is very little quernstone data for the rural sites close to Neatham including Wheatley, Binsted, Frithend and Odiham or indeed the supposed villa sites at Neatham Manor, Binsted Wyke, South Hay, Isington, Glade Farm and Crondall. The reason for this is not necessarily that these sites did not use quernstones, but rather that in contrast to the other sites included in Appendix N: Table N.1, they have not been extensively excavated. Finds from these sites are recorded from close site inspection and field walking, predominately by Lyne (2014). At these sites domestic refuse remained in evidence on the fields but

[272] Despite the proximity of the Surrey sites to the extraction site at Worms Heath, no other examples are known to the author other than that from Sanderstead (Greater London).

substantial pieces of broken quernstone would have been removed by farmers and picked up for use as building material.

14.6.5 Roman Staines-upon-Thames

Quernstones from excavations at the Staines-upon-Thames town sites (Appendix N: Table N.1) are predominantly of Mayen Lava and Lower Greensand. At the Friends' Burial Ground site for example, more than 20 fragments were identified as Mayen Lava (Crouch and Shanks 1984, 109), whilst 13 rotary quern fragments were found on the Elmsleigh site: all the fragments seem to be from the Early Roman period. The presence of Mayen Lava querns may be due, as at Roman Ewell, to the location of Staines-upon-Thames on a major road out of *Londinium.* Of the rural sites with recorded Mayen Lava, that at Thorpe Leas was close to the London-Silchester road, whilst those at Harlington and Wraysbury were located close to spur roads linking the London-Silchester road to *Verulamium.* This seems to indicate that this type of quernstone may have been readily available from tradesmen using the road system, although it should be noted that all these sites are also close to the Thames River, another potential trade route.

As well as Mayen Lava, the Elmsleigh Centre site (mainly occupied in the 2nd century AD) produced a number of fragments of Lower Greensand rotary quernstones (Jones 2010, 74-5), as well as three fragments of saddle querns thought to date from the early second century AD (Jones 2010, 86). Jones and Poulton have suggested these querns might have been quarried from outcrops in the Guildford/Dorking area or from further south near Alice Holt in Hampshire (2010). There is no direct road link to Staines-upon-Thames from either area. Nevertheless, as Jones and Poulton have speculated quernstones from Hampshire may have been transported with pottery from the Alice Holt/Farnham kilns towards *Londinium,* perhaps indirectly via the road to Silchester, or via the 'lost' road from Winchester to London. Two of the rural sites close to the town were also documented as having significant numbers of Greensand fragments (Appendix N: Table N.1): Lodsworth stone at Hengrove Farm and Bargate stone at Thorpe Lea Nurseries. It may be that the Greensand present on the town sites originated from these same sources.

The Staines-upon-Thames area has produced some evidence for the use of sarsen for milling (Appendix N: Table N.1). Sarsen stones are known to have occurred as boulders on the land surface in the Middle Thames Valley and are recorded from gravel pits (Lewis 2010). The nearest known sources of sarsen stone to Staines-upon-Thames are the

Reading Beds and Bagshot to the west of the town[273]. This type of stone was not only used for quernstones but in building work: 30 fragments of sarsen building stone were found on the Johnson and Clarks site; Sarsen dominated the discarded building stone collected from the Thorpe Lea Nurseries site[274]. Although this general local usage seems to confirm a source close by, some of the sarsen may have originated in the Portesham area of Dorset, the western coast of Hayling Island or from around Selsey[275]. The significance of this region as a source is that Purbeck Marble mortars from the same area was certainly supplied to Staines-upon-Thames. Nevertheless, assuming the majority of sarsen stones were local, this represents a supply of field stone of suitable lithography. This could be fashioned into saddle querns and rubbers, requiring less specialised skill to make than rotary querns and continuing an earlier tradition (MIA), evident at sites such as Heathrow Terminal 5. The distribution of these querns then does not suggest centralised marketing from the town, but residents making full use of the most easily acquired stone.

The Hengrove Farm site appears to have exploited a wider range of quernstone sources than residents of the Staines-upon-Thames, but made less use of imported stone. Sandstone (probably Lodsworth), conglomerate and Millstone Grit fragments have all been found on the site along with only a few pieces of quernstone worked from imported stone Poulton[276] (2007, 19). Finds of Lodsworth quernstones are thought to be typical of IA and Early Roman sites in this part of the Thames Valley[277]. A similar range of stone was identified at Heathrow Terminal 5 with addition of fragments of Old Red Sandstone. It would seem that rural sites have tended to produce quernstone fragments from expected sources, whilst town sites indicate those defined by trading routes.

14.7 Summary comments

Notwithstanding the small size of the quernstone database and the limitations of the data discussed at the beginning of this chapter, the review does point to a number of tentative conclusions. Clearly one type of stone does not dominate in all the case study areas and differences in distribution patterns can be identified. German Lava quernstones imported

[273] Shaffrey comments that sarsen would be a common find in this area (Quernstone report – Field 2,2)
[274] Table 5.23 http://new.surreycc.gov.uk/__data/assets/pdf_file/0004/36463/Settlement-Sites-and-Sacred-Offerings-Monograph-4-Digital-Supplement.pdf
[275]Individual sarsen stones are still commonly found at these sites, roughly sized around 100cm by 60cm they are transportable (West 2014).
[276] Poulton actually refers to this stone as 'nephrite' which is unusual, but perhaps a mistake as nephrite usually means jade which is not suitable for quernstones!
[277] This comment is taken from the Heathrow Terminal 5 Section 7 supplementary report 'Worked Stone'. (No page number or author is given).

through *Londinium* were obtained by the residents of towns on roads radiating away from the port (and possibly via the Thames River), such as Ewell and Staines-upon-Thames. This is in contrast to Braughing and the small towns less directly connected: Neatham, and Dorchester-on-Thames. As there is no evidence for organised marketing, town residents must have taken advantage of timely opportunities to trade with road users. The absence of centralised marketing is also attested by the few examples of Mayen Lava obtained from sites in the rural hinterland. The Roman roads and ancient tracks, and possibly rivers, additionally provided routes for the transportation of quernstones to sites from regional sources, such as ORS from the west of Britain. The same routes carried querns into London (e.g. Millstone Grit from the Midlands) but there is no evidence that any of the small towns played a distribution role in this trade. Premises for storing quernstones for trade or discarded broken examples are extremely rare.

The continuation of pre-Roman consumer patterns can be found in the reliance of Neatham on local sources of Lower Greensand for quernstones and the use of sarsen stone in and around Staines-upon-Thames. Of the rural hinterland sites, a number provided data for a greater variety of quernstone sources than were identified for the associated small town: this seems to indicate broad trading connections, independent of the town. This suggests that rural sites may have relied on travelling traders or their own established socio-economic connections to provide querns, rather than sourcing these from a centralised market in the local town.

Pottery

15.1 Introduction

This chapter employs a systematic review of the pottery data available for the five case study small towns and their hinterlands[278], with the object of assessing the extent to which these settlements were involved in the marketing and distribution of these goods in the Roman period. Given the length of the Roman period and the variety of imported, regional and local pottery concerned, this chapter considers the data subject to the individual contexts of the five small towns and substantially within the sub-periods of Early/Mid-/Late Roman. Any common trends are sought as these might also apply to small towns beyond the scope of this research.

It has traditionally been thought that pottery was marketed through small towns (Esmonde Cleary 1989, 91), particularly where a centre of production has been identified close by. This circumstance applies to three of the five case studies: Roman Braughing (Hadham potteries), Dorchester-on-Thames (Oxfordshire potteries) and Roman Neatham (Alice Holt potteries). Closely allied to this belief has been that analysis of pottery finds data ought to throw into relief the routes used for transportation, if not the mechanism through which ceramic ware was marketed.

Study of pottery distribution to date has focused on the transport potential of the major Roman road network (Hodder 1974; Booth 1991, 9) and river/coastal routes (Fulford and Hodder 1974; Lyne and Jefferies 1979; Henig and Booth 2000; Lyne 2012) for longer distances. In parts of the country where pottery production workshops and enterprises disseminated wares locally, for example at Swavensey (Cambridge) in the LIA/Early Roman period (Willis 2008, 60-1[279]), distribution routes are less easily discernible in the archaeological record. Several studies have shown that finds of 'high status' pottery assemblages are more common near major roads and 'lowest status assemblages' further away (Booth 1991, 9; Dicks 2007, 81)[280]. This illuminates a key question of whether

[278] Amphorae data has been omitted from this study simply due to limits of time and space.
[279] Excavation showed that the local area used the variety of pottery produced at these kilns and little from elsewhere (6 sherds?) and that continuous development of pottery styles was discernible – chronologically there were no distinct changes during the LIA/Early Roman period (Willis 2008, 60-1).
[280] Arthur and Marsh originally argued that the distribution of fine ware pottery was closely associated with sites occupied by Roman legionaries, and is therefore independent of the market economy of the civilian population (1978, 206).

towns or villas obtained these wares because the residents were wealthy or simply because they had easy access to these goods (Willis *pers. comm.* 2016). The association of the Roman road network with the hub-like locations of many small towns has contributed to the assumption that these settlements had a role in marketing pottery. Particularly influential has been Hodder's application of regression analysis to selected data which demonstrated that pottery finds become fewer as the distance increased from the small town, rather than the location of the kilns (1974a; 1974b). These results have been interpreted as attesting to small towns acting as market centres, although alternative interpretations of Hodder's maps may also be valid.

The current body of pottery distribution knowledge is roughly divided into those studies which focused on the distribution of wares from particular production sites (e.g. Fulford and Hodder 1974) and those which have investigated pottery assemblages on an individual site or regional basis (e.g. Booth 1991; Pitts and Perring 2006). Different pottery sources have dominated assemblages at different times over the course of the Roman period in Britain (Booth 1991, 1). General common trends identified include higher amounts of samian ware in early assemblages and of regional fine wares (such as from the large Oxfordshire potteries) in later assemblages. Small scale production of greyware continued across much of the province in the late 1st century AD[281] at the time as pottery industry centres, such as Black Burnished ware manufacturing in Dorset, started to develop (Smith 2017, 203). By the Mid-Roman period around half of the smaller pottery sites had ceased production or continued to supply coarse ware only to local sites into the Late Roman period. Fine ware from large producers in areas such as the Nene Valley and Oxfordshire have been found in assemblages across southern Britain (*ibid*), possibly coinciding with a contraction of output from the coastal margins[282] of southern Britain (Going 1992; Lyne 2016, 85). A general, unaccounted for, decline in pottery manufacturing is held to have occurred after c. AD 350 towards the end of the Late Roman period.

Data from pottery assemblages, particularly recovered from rubbish pits, may represent decades of accumulation, representing the end point of a number of routes: direct distribution from the kiln site, personal connections, itinerant traders, purchase or exchange at rural markets or festival events (Gibson and Lucas 2002), urban markets and shops.

[281] Southwark – Jubilee Line Extension Project (1991-8) (Drummond-Murray and Thompson 2002, 171) Early Roman assemblages (Open Area 2 and 201-211 Borough High Street) – mainly jars of unsourced shelly, grog or sandy ware.
[282] This claim apparently discounts New Forest fine ware and mortaria production.

Pottery was not the only commodity, only the most visible in the archaeology record, and it is traditionally thought by scholars that other goods 'piggybacked' pottery distribution routes. It is reasonable to allow that consignments of mixed goods were common, and that improved understanding of pottery distribution may provide insights into the distribution of other products, such as quernstones and agricultural produce which also feature in this present study.

15.2 Material sources

Data has been collected from two targeted areas for this review: the observations and data recorded at individual archaeological sites in each of the case study areas (Appendices T-X) and archaeological investigations of nearby major potteries and kiln sites (small town kilns are discussed in Chapter 10). Contextual material has been drawn from studies involving data interpretation based on the application of mathematical models and small regional studies where focus has included pottery distribution.

Reports from the sites in the five areas vary enormously in terms of the nature and quality of the data, the format in which it is presented and the interpretive potential of the sample (e.g. a stratified domestic pit compared to a field walking collection). The reports can often be cursory in discussing pottery finds or pottery details are omitted awaiting expert analysis. Full analysis of an assemblage is rare, although quantified data (including sherd number, weight, MNVs, EVEs[283]) is found in some reports, for example The Castle Hill and its Landscape report from near Dorchester-on-Thames (Allen *et al.* 2010). This is an inherent challenge to working with secondary data, particularly with older reports. Dicks, for example, finding that only the records from one site were usable, resorted to retrieving the stored pottery finds from the museum and recording all the material himself prior to analysis (2007). Unfortunately this solution would not have been feasible for this present research given the number of sites involved. This study then has reviewed the evidence as presently recorded, justified on the basis that it is this the same evidence which has been used to support small town market centre claims in the literature.

15.3 Pottery data

It is assumed here that the reader has a good knowledge of the pottery available in Roman Britain[284], so the history, breadth and diversity of forms and fabrics produced by the

[283] Estimated number of whole vessels.
[284] Roman Britain (AD 43 -410) common pottery fabric abbreviations used:

various regional British and Continental industries are not covered in detail. That said, where incidental elaboration is helpful to contextualise and clarify points made in reviewing the data, this has been done. Little attention has been given to pottery forms (even though practical considerations and cultural expression would have influenced the choice of vessel) in favour of focussing on the source of the pottery finds, given that this has the potential to provide stronger information for addressing the core questions of this thesis. To this end the data has been retrieved and, as faithfully as possible, entered into dedicated spreadsheets in order to collate what is known for each case study town and local rural sites. Other than a limited number of the finds at Ewell, none of the pottery has been viewed in person. As much information has been collected as possible, whether this is in the form of quantified assemblage data (rare) or excavators' comments. However, records are sometimes confused; assemblages where quantified, have been classified by various means rather than consistent measures, such as weight, sherd count, percentages, EVEs or a mix, or not at all; detailed discussion may be made of only a single piece or vessels origins are admitted to be uncertain. The overall nature of the available data makes opportunities for quantitative analysis and like-for-like comparisons largely impossible and any attempt at a study, for example like Booth's work on Warwickshire (1991) or other pottery studies (where the author has generated their own data through hands on processing of assemblages themselves, with a consistent application of a method), out of reach with a PhD study which is not solely pottery based.

The demands of the systematic review have led to the construction of four tables for each small town area recording the presence of the various pottery fabrics/sources. These are presented in the five accompanying appendices (Appendices: T, U, V, W, X), covering the periods: Whole Roman, Early Roman, Mid-Roman and Late Roman for each small town. The data for as many sites as possible has been included although a minor number of sites

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AH Alice Holt wares; AH/SU Alice Holt/Surrey; AH/F Alice Holt/Farnham; AHBB Alice Holt Black-burnished type ware; BB Black Burnished; BB1 Black Burnished ware (Dorset); BB2 Black Burnished ware; COL Colchester; GCC Gallo-Roman colour-coated ware; GROG Grey tempered ware; HAR Harrold ware; HIGH Highgate ware; HOO Hoo (North Kent); LNV Lower Nene Valley; LONDW London ware; MHAD Red colour-coated ware; MICA Mica-dusted wares; NFCC New Forest; colour-coated ware; NKGW North Kent fine grey ware; NKSH North Kent shell-tempered ware; NV Nene Valley; NVCC Nene Valley colour-coated ware; OXID Oxidised wares; OXF Oxfordshire wares; OXRW Oxfordshire red/brown colour-coated ware; OXWW Oxfordshire white ware; PORD Portchester 'D' red or yellowish sandy ware; SAND Sand-tempered grey wares; SHELL Coarse shell-tempered wares; VCWS Verulamium region coarse white-slipped wares; VR Verulamium ware; VRR Verulamium region red ware; VRW Verulamium region white ware
CG Central Gaul; EG Eastern Gaul; SG Southern Gaul
(after Davies *et al.* 1994; Orton 1997; Rayner and Seeley 2002).

have been omitted where lack of detail justifies this action and may only be alluded to in the text.

15.4 Overview of pottery sources data

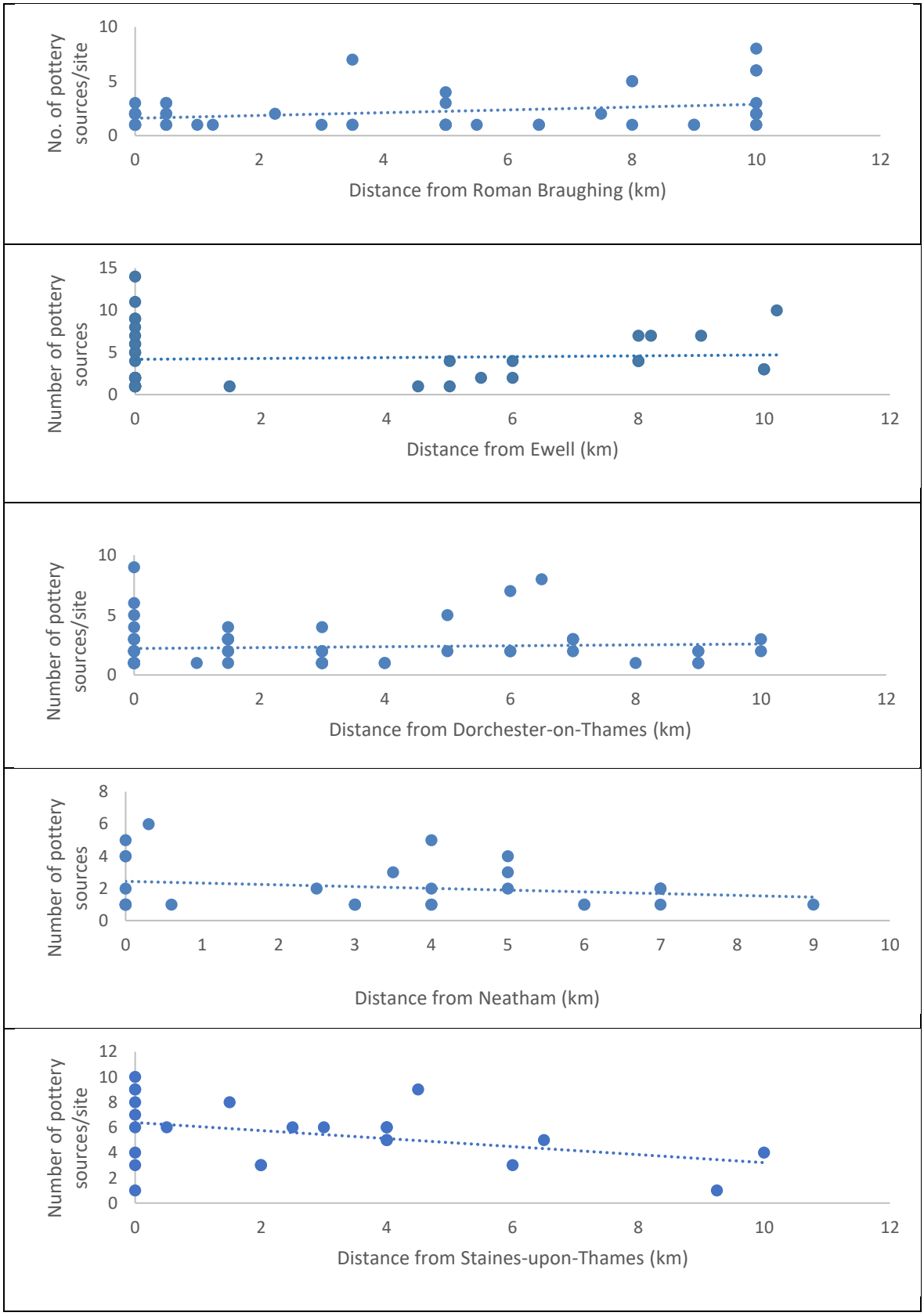


Figure 15.1 The minimum number of pottery sources identified for each site plotted against distance from the town - a comparison of the case studies.

An overview of the range of pottery sources to which the residents of the small towns and hinterland rural sites obtained vessels highlights both common and individual characteristics. Common to all five study areas is the effect of archaeological interventions focused predominantly on sites close to major roads. Also apparent are the motivations of the site excavators in promoting the small towns as market centres for local pottery wares (particularly at Neatham). These summary comments are explored in greater detail in the period sections which follow.

The pottery used in Roman Braughing is from a more limited range of sources than has been found at some other local sites (Figure 15.1). Inspection of the summary data indicates that this is linked to the presence of the major roads (Appendix O: Table O.1). Sites with the greatest range of local, regional and imported wares are those closest to Ermine Street, particularly at Ware, with a range of regional pottery from eastern Britain dominating assemblages from sites closest to Stane Street, such as Buntingford.

The data plotted for Roman Dorchester-on-Thames, by contrast, indicates a slight trend towards increased access to a range of pottery sources (Figure 15.1) away from the town. Two main trade routes existed in this period (Timby 2012, 133): the Thames River and a distribution corridor running northwards from the south coast. The affects of these routes probably accounts for the widespread presence of BB1, OXF and NF sherds (Appendix P: Table P.1). A number of the excavated rural sites are also associated with the road connecting to Alchester which may have opened up access to V and NV wares. The position of Dorchester-on-Thames would have been suitable as a market centre for OXF wares distributed to the south of Britain although this is not obviously supported by the data (Appendix P).

In Surrey, the concentrations of sites with the widest access to pottery sources appear to have been in Roman Ewell and at rural sites within distances of 4-6 and 8-10 km respectively (Figure 15.1), all located within 2-3 km of the two main roads issuing south from Southwark (Stane/Ermine Street and the London-Portslade road). AH wares from the south-west have been found in assemblages across the area as have small quantities of other regional wares (particularly OXF, PORD and VR) and imported samian vessels. A general distinction can be made between sites along the London-Portslade route which

obtained vessels from the London and North Kent area potteries, and those in Ewell which had access to OXF pottery apparently via Stane Street travellers.

The trend line for Roman Neatham (Figure 15.1) indicates that a greater variety of pottery sources were available to the town residents than those in the country, although all sites included AH wares (Appendix R: Table R.1). Sites in both the town and countryside obtained OXF vessels, but only the former had recorded samian ware (perhaps indicative of their mid-late Roman emphasis). Silchester ware barely filtered into the Neatham area (Millett and Graham 1986, 155 fig. 103) probably due to the early date of Silchester ware, nor did Rowlands Castle ware, although some has been recorded since this report was published. Roman Neatham is favoured as a market centre for AH pottery (Millett and Graham 1975, 1986), but is actually too far west and away from London, to be a logical supply centre. From here, it would only have been practical for goods to be transported to Silchester, Winchester or Chichester, for which there is little pottery evidence.

Roman Staines-upon-Thames apparently obtained pottery vessels from a greater range of sources than local rural sites (Figure 15.1). Although all sites used locally produced Colne Valley wares, V, S, BB1, OXF and AH wares, only the town and peripheral Hengrove Farm assemblages included pottery made in the London area (Appendix S. Table S.1). In common with the other case studies, the character of the pottery findings are the product of the archaeological context in which they were found, i.e. predominantly on intervention sites close to major roads. Importantly, at Staines-upon-Thames a number of the sites excavated (e.g. the Elmsleigh Centre) produced large amounts of pottery recovered from early quarry sites (road building material), rather than domestic contexts. This then allows, contra Jones (2010, 87), for this to have been pottery waste brought in from elsewhere to fill the old quarry sites in order to build up dry land in the town. This explanation would account for the greater range of pottery types found on town sites in comparison with rural sites (Figure 13.1).

15.5 Early Roman period (AD 43-150)

15.5.1 Roman Braughing

(Appendix O: Table O.2 Early Roman pottery data)

Evidence for locally produced unattributed coarse ware has been recorded at several sites in Bishop's Stortford, Buntingford, Braughing (bath house and Friar's Road), Gatesbury, Puckeridge and Standon, with kiln sites[285] known at Braughing (TL39042410) and Buntingford (TL35682936). Ware Football Club produced sherds of grey ware and a coarse shelly-ware jar (Walker 1995, 7) and for which there is evidence of a nearby kiln site. The demand for basic coarse ware vessels was met locally. Only Exnalls Farm and Plashes Farm produced sherds described as 'Belgic' although these too are likely to have been made locally and perhaps attest to a burgeoning interest in pottery manufacture in the Hadham area.

Increasingly well-represented (Bishop's Stortford, Buntingford, Ware and Bromley Hall) were vessels produced at the better known kilns in the Hadham area. Only one site within Roman Braughing (TL38902480) produced any evidence for the use of Hadham ware: 'grey ware' and early 'rilled' jar sherds, also found on the land to the North of Harlow (Hart and Young 2006). However, the scarcity of Hadham pottery data from town sites attests to the lack of surety in recording this type of pottery rather than its absence (Bryant *pers. comm.* 2014). On this present evidence it is unlikely that Braughing acted as a distribution point for MHAD pottery in this period.

Pottery originating from the *Verulamium* area has been identified at sites in Bishop's Stortford, Braughing, Standon and Ware likely transported eastward along Stane Street. Pottery from Highgate Wood, to the south and closer to *Londinium* was noted at Ware (GSK) and at Buntingford, probably transported north along Ermine Street, but absent in Braughing assemblages. Highgate Wood was a major supplier to *Londinium* of jars (HWB and HWC), and increasingly towards the end of the period, beakers ('poppyhead'), dishes and bowls (Davies et al., 1994, 74-88); predominantly distributed southward with only a few sherds reaching Ware (GSK) and Buntingford (Owles Land), and none in Braughing, attesting to a trickle of vessels northwards along Ermine Street or up the Rib tributary. The evidence for vessels originating at potteries located in other regions in Britain during the Early Roman period is scant[286] . However, Plashes Farm (Standon) did produce very small amounts of HAR and COL ware, as well as sherds of NV ware (again a little early in date), as did Wallington and the masonry building at Roman Braughing.

[285] It is not clear at what period(s) these single kilns were active.
[286] The three occurrences of OXF ware (generally thought to predominate in the Late Roman period) might be discounted.

Gallo-Belgic *terra nigra* and *terra rubra* were well-represented in the form of platters, cups and beakers at the early occupation sites in, or in close proximity to, the town: Skeleton Green (Partridge 1981), the roadside occupation/workshop area, Gatesbury, Station Road, Puckeridge and Wickham Kennels. Assemblages from Skeleton Green and Gatesbury date from the pre-conquest period. Only two additional sites, both to the north of the town (Buntingford and Wallington) produced traces of this early imported ware, suggesting that these vessels were not marketed to local rural sites and may have been simply possessions of migrant settlers.

Early period samian ware, predominantly South Gaulish in origin (Arretine and pre-Hadrianic Central Gaulish sherds have also been noted), reached a greater number of sites in the area, taking in Bishop's Stortford and Ware. Although fine wares had been imported into Britain during the LIA, the availability and evident popularity of this type of table ware increased after Claudius' invasion (Arthur and Marsh 1978, 1). The demand for fine table ware in *Londinium* through the 2nd century, was met by the Central Gaul industries of Les Mastres-de-Veyre and then Lezoux. 1 Poultry revealed a high percentage of samian in association with the east-west road (Rayner 2011, 280) and assemblages included a more diverse range reflecting the port status of the city (Hill and Rowsome 2011, 481). The Hertfordshire samian concentrations are all located either along Ermine Street or Stane Street, likely obtained from consignments transported north from *Londinium,* little was disseminated to the countryside. Although the presence of samian pottery on rural sites is generally taken as significant in terms of market patterns (q.v. Money *et al.* 1977, 349-350; Booth 2009b) this is not necessarily an indicator of status unless proportions are above the rural average (cf. Willis 2005).

The distribution of pottery, of local, regional and Continental manufacture appears to be closely associated with the major roads in the area. However, this does not necessarily reflect new post-Conquest trade routes, but rather the continued use of preceding IA routes. For examples, both the B1368 (Thompson 2005) and the Great Chesterford Road (Landon 2010, 25), the spur road from Bromley Hall and Stane Street here are all thought to have had pre-conquest origins. As such this did not encourage the development of Roman Braughing as a market centre for the distribution of pottery.

15.5.2 Roman Dorchester-on-Thames

(Appendix P: Table P.2 Early Roman Pottery data)

The pottery evidence for Early Roman Dorchester-on-Thames and its hinterland is meagre for all types other than local, pre-Oxfordshire, ware. Belgic pottery in grog-tempered fabric is recorded at four dispersed sites within the town and at Castle Hill close by; three sites over 5 km to the west and north of the town (Appleford, Blackbird Leys and Nuneham Courtenay). At Neptune Wood (Long Wittenham) Belgic pottery was notably absent (Allen *et al.* 2010). The local pre-Oxfordshire ware occurs on a great number of sites (11 urban, 13 rural), all except one of which (Aston Tirrold Site 2) are close to the Thames River, suggesting that pottery was transported along the route of the river, if not on it. Barton Court Farm near Abingdon (Miles 1984 microfiche data V.3.1) attests to continued occupation of the farmstead from LIA into Roman period and demonstrates the continued use (and production?) of wares in an IA tradition: 54% of the Early Roman assemblage.

The presence of pre-Roman pottery production and circulation in this area is important in establishing an early distribution network, contra Esmonde Cleary's claim that grey wares (coarse wares) produced locally were sold through the nearest market town (1989, 85) (Dorchester-on-Thames?), which seems less likely. It is more likely that early local wares, jars being the most common form (Booth *et al.* 2007, 305), were produced at individual sites such as Dorchester-on-Thames Abbey Well[287] (Swan no date) and local kiln sites including Allen's Pit[288], Churchill Hospital and Blackbird Leys. This area produced OXF coarse wares in the 1st century AD[289]. Vessels at Wittenham Clumps (Rhodes 1948) and at Barton Court Farm (Miles 1984) thought to have been manufactured at the Cowley kiln site, may have been misattributed as the kiln site here is associated with later 1st century manufacture of mortaria (Esmonde Cleary 1989, 86).

According to Frere "Native Belgic pottery in the excavations was always associated with Gallo-Belgic imports, themselves of Tiberio-Claudian types" (1962, 129). This claim only

[287] Late 1st/early 2nd century pottery vessels and production wasters attest to pottery production on or close to the Abbey site.
[288] The site of Allen's pit within the town has revealed three clay puddling pits, probably associated with a nearby kiln (Anon, 1938, 166-67) – manufacture may have been vessel or tile. In 1936 Harden also reported a 2nd to 4th century kiln site here making red colour coated ware.
[289] Occasionally these are confusingly referred to as 'Belgic'.

appears to be true of Frere's excavation and as such the presence of IA pottery needs further research. Gallo-Belgic pottery evidence is otherwise only known from two additional sites in the town and none in the hinterland (see also Timby and Rigby 2007). Samian ware from Southern and Central Gaul is better known here from 8 across the town and 8 rural sites, but in very small quantities (c. 3-4 sherds, equating to around 1% of assemblages on rural sites and around 2% in the town). This evidence suggests low-level distribution of imported pottery across the local population at this time: little greater in Early Roman Dorchester-on-Thames than in the countryside. This is contra Morrison (2009, 22) who claims an abundance of Continental fine wares discovered in Dorchester-on-Thames attesting to 'new cultural influences' on the early settlement[290]. Along similar lines, Henig and Booth (2000, 174) have argued that 1st and 2nd century sites with the highest proportion of fine and specialist wares in their percentages were rural ones.

In terms of regional pottery finds, only a very few V white ware vessel and mortaria sherds (Frere 1962, 146) have been found in the town and at Barton Court Farm. Roman Dorchester-on-Thames would have been at the western limits of the distribution of the former, although these mortaria have been found right across Britain (Tyers 1996). Henig and Booth have argued that mortaria from this source may have been introduced by skilled potters relocating from the *Verulamium* area and introducing these vessels to the range of forms produced in Oxfordshire (2000, 164).

15.5.3 Roman Ewell

(Appendix Q: Table Q.2 Early roman pottery data)

Pre-conquest occupation is known at a number of sites near Ewell: Walton-on-the-Hill, Chessington, Sanderstead, Ashtead, Beddington villa (enclosed settlement), Carlshalton, Tolworth, Croydon and Leatherhead. IA pottery has been found widely distributed across the area[291] (Poulton 2003a, 13) (see Cotton 1982, 170) with the addition of IA/early Roman transition pottery from the pre-Roman 'Celtic' field systems recognised on Leatherhead Downs (Hope-Taylor 1949). Pottery remains from the IA farmstead at Hawk's Hill (Leatherhead), were thought by Cunliffe to have been LIA saucepan pots most likely sourced from the south coast, near Brighton (Hastings 1965, 37). The use of this trading

[290] The evidence for this claim is unclear and in fact Mount Farm was particularly noted for producing no samian at all (Myres 1937).
[291] No IA evidence was found at all at Ewell, Church Meadow site.

route along with the distribution of IA pottery in this area suggests an established platform for that of Early Roman pottery distribution.

Coarse wares, mostly grey wares dating to the 1st and 2nd centuries, have been found at sites across Ewell and included a range of forms from dishes and mortaria to ollae. Thought by various excavators to be made locally, comparable wares have also been recorded at Ashstead and Cobham (Lowther 1949), although often detailed as sandy, grog-tempered and oxidised wares. Locally made Belgic pots have been noted at Purberry Shot (Lowther 1949) as being similar to vessel remains found at Ashtead Villa and Farley Heath (1949, 40, 43). Thus evidence points to the circulation of locally produced coarse ware although no kilns have as yet been found in close proximity to Roman Ewell.

The diversity of wares may be expanded by finds of reduced ware fabric with a black surface, noted at Glyn House (Stansbie and Score 2004, 195), and distinctive sandy ware at King Willliam IV (Orton 1997). Beyond the town similar coarse wares have been found with the addition of sherds of a single Hadrianic/Antonine face pot, which possibly had a military owner (Bird 2014, 7). While local kiln sites remain elusive, among the finds at Lower Coombe Street (Croydon), Taylor has claimed c. 20% to have been sourced from Keston to the east (2005a, 2005b, 2011). This fits with Lowther's early claim that vessels were commonly sourced here from the greater London area, e.g. 'soapy surfaced ware' probably made in London (1949, 31). Potentially vessels were also sourced from further east, transported along the North Downs and the lower Thames River. Examples of Patch Grove ware, for example, were also found in Ewell and at Walton-on-Thames, these being characteristic of the potential source north of Oldbury in Kent. Examples of Upchurch/NK wares were discovered in the town and three sites produced sherds manufactured at Hoo. Outside the town, at the farmstead at RAF Chessington, NK ware accounted for more than 59% of the assemblage (Preston 2012a). Additionally, sherds of grey ware butt beaker and a jar were tentatively assigned to Colchester type by Frere (1939, 56), but these attributions need modern validation given their date.

AH vessels account for 24% of assemblages collectively[292] recovered from Early Ewell (Lyne and Jefferies 1979, 52 and *Fig.* 42), this is around 7% higher than that at Walbrook (*Londinium*). Around 19 of the 22 Ewell sites included in this study recorded sherds of AH

[292] Higher figures have been posited for some sites for the whole Roman period, eg. Ewell St Mary's churchyard where Pemberton claims a figure of 33.6% for AH ware (2015, 9).

vessels, with 7 assemblages clearly dating from the Early period of the settlement and the remaining unassigned to a particular period or likely to have been included as 'coarse' or 'grey' ware. Having identified early examples of flanged and beaded bowls from pit assemblages at the King William IV site in Ewell, Orton (1997) has cautioned that AH/SU pottery vessels are harder to identify than later AH/F ware which, if correct, may infer higher real percentages, although Orton does not make clear how misidentified pieces have been accounted for (general grey ware perhaps?). AH/SU wares were also found to dominate - 22.1% of assemblage - the Early Roman site at Lower Coombe Street on the London-Portslade road (Lyne 2011, 203, *fig.* 6 no. 1); away from the main route into London. These wares may have been transported eastward across country particularly as local products (20.9%) are identified as possibly manufactured at Keston (Cooper and Parfitt 1991), transported along the same route but from the east (Lyne 2011, *fig.* 6 no. 2). This evidence would suggest that AH/SU pottery was distributed north and east across the Ewell area, along existing trade routes[293] such as the mooted Winchester-Stane Street road or a North Downs pathway (Pemberton 2015) although this is speculative.

The belief that the Early Roman pottery record in Ewell might be "very closely aligned with that of *Londinium*" and that AH/SU and samian were traded in the small town (Davies *et al.* 1994) cannot be directly interpreted from the data. There is no evidence of storage buildings or shops to suggest that stock was held here before being redistributed locally or to the London area. Neither is there evidence of the use of direct transportation from AH kilns to Ewell, as opposed to a diffused trading pattern[294].

It is also worth considering the distribution of imported samian ware recorded at sites in and around Early Roman Ewell, particularly given the position of the town on Stane Street and that *Londinium* was the major port of entry for this pottery into Britain. A review of the data suggests that it was not in common use in Early Ewell, even though the King William IV site produced c. 5-7% samian (Orton 1997, 113)[295] which is comparatively

[293] Lyne and Jefferies favour river transport for the distribution of AH pottery from Hampshire, (1979, 54); comparison of site assemblage percentages however does not favour the obvious Wey-Thames-Hogsmill rivers route over a land route.
[294] Compared with London sites Orton (1997, 113) found a wider range of wares at the King William site including Lyon ware, Moselkeramik, Palestinian amphora, Highgate Wood ware and Much Hadham fine and coarse ware.
[295] Orton noted a generally lower proportion of imported wares at the King William IV site compared to around a third at the Billingsgate site (1997, 113). This may be accounted for by the nearness of the Billingsgate site to the Roman warehouses; alternatively this site is likely to have been of higher status than the Ewell site.

high for small town site (Willis 2005). In Ewell, Early samian sherds were largely Hadrianic and mainly from the Lezoux area of Central Gaul (Frere 1943; Lowther 1949). Commonly found across Britain, the general distribution pattern of samian vessels (Tyers 1996) attests to dispersion northwards from the coast along the main roads, southwards from the London area and possibly filtering across from the east along the Kent downs (Willis 2005). The possible east-west movement of goods might account for the presence of these imports at Walton-on-the-Hill (Lowther 1950).

Only a few sites in the Ewell hinterland are notable for samian or Continental imports. Sites in the Ashtead area with access to Stane Street produced samian vessel sherds (South and Central Gaulish origin) and remains of beakers imported from the Cologne region; those at Sanderstead and Croydon (Lower Coombe Street site) on the London-Portslade road, of which the latter had La Graufesenque vessels from South Gaul, as well as Drag 18/31 from Martres-de-Veyre. Sherds of Pompeian Red ware were reported only at the Burgh Heath site (Preston 2012a) which, although widely distributed is not common and none is known from any Ewell site. Whilst assemblage compositions generally differ from that 20km further north at Southwark (Rayner and Seeley 2008, 189) the 'concentration' of samian at sites close to Stane Street suggests this was a key transport route, but their lack on rural sites infers that these wares were not marketed from Roman Ewell.

15.5.4 Roman Neatham

(Appendix R: Table R.1 Early Roman pottery data)

The pottery data available for the Early Roman period for both town and country is meagre and lacking detailed documentation: often 1st or 2nd century pottery is simply listed as 'present'. The four town sites with any specific pottery information were all sited along the Silchester-Chichester road. A tiny amount, often only one sherd, of Central Gaulish samian has been found on three of these sites, one of which (Area F) was a burial site and thus may have been the possession of an early foreign settler (Millett and Graham 1986, 61). Sherd evidence from the crossroads site included examples of white ware flagons produced before AD 75, probably at Brockley Hill. These vessels are known to have been distributed some distance (from the *Verulamium* area north of the Thames River) as examples have been found at Fishbourne (Millett and Graham 1986); perhaps having passed through Neatham via London (Tyers 1996). Of the three sites with early AH wares recorded, only

that at Cuckoo's Corner had a significant amount [296], although Millett and Graham have cautioned that early local pottery may not have been accurately identified at excavation sites (1986).

Data for rural hinterland sites is vague: 1st and 2nd century pottery has been noted at Alice Holt, Binsted, Isington, Kingsley, Odiham, South Hay and Wheatley, but as no details are available and the majority of these sites are associated with pottery production, it is likely that at least a proportion of the recovered sherds represent the manufacturing process or personal use by the potters. The nearest site with a detailed pottery breakdown for this period is Kennel Farm, 14 km north-west at Basingstoke, which was abandoned by the end of the 1st century. Here, the proportion of AH wares recorded reached 72% (sherd weight) in one ditch (c. AD 30-60). This suggests the early distribution of these wares in the direction of Silchester, passing through Neatham.

Lyne and Jefferies have argued that vessels in use in the Early Roman period in Neatham were dominated by products of the Alice Holt kilns and imported samian wares (1979, 52) with only a few vessels from other sources; the authors attribute this to the town being a small settlement at this time without extensive trade connections (Millett and Graham 1986, 87). This is not borne out by the data collected for this present research, but this may be due to uncertain identification of locally produced wares. Other urban centres have substantial percentages of AH ware for this period: Staines-upon-Thames 18%, Ewell 24%, *Londinium* (Walbrook) 17% for AD 70-85 (Lyne and Jefferies 1979, 52 and *Fig.* 42). At *Londinium*, the Alice Holt kilns are thought to have supplied significant amounts of pottery, particularly storage jars during the Hadrianic period (Davies *et al*. 1994, 97), whilst AH/SU vessel sherds have been found in small quantities scattered across a number of sites in Southwark (Rayner and Seeley 2009, 206-229). This demonstrates supply and demand for pottery from growing urban settlements[297]. The number of regional wares supplied to Silchester increased by 2nd century with Alice Holt as the main source of coarse ware[298]. The evidence suggests then that the pottery was not being redistributed to urban centres (or local rural sites) via Neatham but directly, or indirectly traded from the kiln

[296] In Alton Museum (www.pastscape.org.uk) [Accessed 4.08.2017].
[297] Early/Mid-Roman pottery kilns have been identified in *Londinium* at the Northgate and Moorgate sites which were manufacturing vessels by the 2nd century AD; the only possible production site identified in Southwark to date is that close to Borough High Street at site 56 (Cowan *et al*. 2009, *Fig 12*, 30; 110).
[298] According to Lyne Alice Holt was supplying both Silchester and Staines to the same extent: around 55% by count at the start of the 2nd century and 58% by the late 2nd century (2012, 137).

sites. Following this logic, AH pottery is more likely to have reached Staines-upon-Thames and the London area via the more direct route of the river system. The record may alternatively bear witness to the migration of a number of people from the Hampshire region to these new settlements introducing this type of ware and maintaining socio-economic ties until alternative wares could be obtained more locally.

15.5.5 Roman Staines-upon-Thames

(Appendix S: Table S.2 Early Roman pottery data)

Sites in and around Roman Staines-upon-Thames present similar assemblage profiles with the majority of coarse and fine wares supplied by 'local' production sites, as for example on the Heathrow T5 site (Jones and Brown 2011, 13). The term 'local' used in the reports variously applies to pottery from two areas: production sites extending from an area close to Staines-upon-Thames northward along the Colne Valley towards *Verulamium* (applicable to six town sites and nine country sites); that produced in the town (applicable to five town sites and Hengrove Farm)[299]. Identification of local pottery is not straightforward.

Vessel sherds on the Friends' Burial Ground site in Staines-upon-Thames were apparently sourced from the south of the Colne Valley c. AD 60, but Crouch and Shanks (1984, 45) also noted accompanying bead rim jars and 'Surrey/Atrebatic' bowls, which were not consistent with the forms or dates (early/mid-2nd century AD) documented from the local Fulmer or Hedgerley kilns. Although the fabric must have been sourced in the same locality, the kilns used to manufacturing these forms are as yet unrecognised, or lost to modern redevelopment. Pottery c. AD 130-160 obtained from the *Verulamium* and Brockley Hill sites was also identified on the same site although a few earlier examples[300] have been recovered from c. AD 55 (Crouch and Shanks 1984, 53). No direct road connection is known to these sources, although Colne Valley (and *Verulamium*) wares could have been transported directly to the Staines-upon-Thames[301] area via the river tributary system or unmetalled routes along the valley. It is equally possible that this early distribution pattern indicates the migration of settlers bringing pottery possessions from the

[299] The two options were distinguished as far as possible in the database for this study.
[300] Consistency of forms appears to link Staines-upon-Thames and the Verulamium area is the later period too, between AD260 and 410 (Crouch & Shanks 1984, 53).
[301] Pottery consumption is similar to Silchester overall, but Staines-upon-Thames was using a greater proportion of wares from *Verulamium* and Highgate Wood.

north Colne Valley to settle the Staines-upon-Thames area, and subsequently maintained socio-economic links. Towards the end of the Early/beginning of the Mid-Roman period pottery supply increased to meet demand to the north of the Thames River[302] when there was an apparent decline after AD 120 in pottery production at Alice Holt and, after AD 160, at Highgate Wood (Bagwell 2002[303], 34).

Crouch and Shanks have sought to identify a local industry at Roman Staines-upon-Thames producing coarse and fine wares during the end of the 1st century AD (1983, 253). They have argued that orange mica-dusted[304], 'London ware'[305], 'Pompeian' Red ware and 'Gallo-Belgic' ware in a range of forms were manufactured to meet local demand for popular styles in the town and country. Crouch and Shanks have stated that uniquely styled oxidised and reduced wares were produced in the town by military potters, influenced by Continental styles and military tastes (1984, 253-5). The authors clearly favour a military origin for the town, although, as discussed in the chapter on Staines-upon-Thames, there is little evidence for this. Nonetheless, there remains much uncertainty over where many of the wares discussed were manufactured. The identification of a 2nd century AD kiln site to the north of Staines-upon-Thames High Street (Crouch 1979; Crouch and Shanks 1984,45; McKinley 2004, 11) on the basis of 6 wasters is dubious particularly, as Jones has pointed out, there is no suitable pottery clay available close to the town (2010,105). Thus, the small town and local rural sites obtained pottery from the general area of the Colne Valley; Staines-upon-Thames did not produce pottery nor was the town pivotal to supplying the hinterland.

AH pottery, produced over 30 km to the south-west was found in a small quantity at Heathrow T5 (Jones and Brown 2011, 13); larger amounts were evident from sites within the town. At the Elmsleigh Centre[306] AH ware accounted for half of all pottery from this early period (Jones 2010, 90) and represented a steady supply over the course of this period

[302] Colne Valley wares are suspected to have been traded westward probably forming a portion of the assemblage from House I at Silchester (Timby) http://intarch.ac.uk/journal/issue21/4/finds_pottery.htm [Accessed 27.08.2017]
[303] http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-1352-1/dissemination/pdf/G_London/GL8030_SLO76246.pdf [Accessed 27.08.2017]
[304] P. Jones has since specified that there is no evidence for mica-slipped (?mica-dusted) wares being produced in the Colne Valley although some may have been made near Verulamium; most however were probably made in the London area of Northgate (Jones *pers.comm.* 9.7.2015; Rayner and Seeley 2008, 193).
[305] According to Rodwell, stamped 'London ware' sherds manufactured in the London area and the Upchurch marshes have been found spread as far as Titsey villa (Surrey), central London and *Verulamium*, essentially within a 20 mile radius (Arthur and Marsh 1978 ,202, 225).
[306] For detailed breakdown of pottery finds from the Elmsleigh House, see pp 88-144 (Jones 2010).

(*ibid* 91). At the Prudential site contexts dated between AD 70 – 160 were dominated by AH grey wares (Jones 2010, 348-351). Alice Holt kilns were eventually supplying Roman Staines-upon-Thames to the extent of c. 55% (sherd count) at the start of the 2nd century and 58% by the late 2nd century (Timby 2012, 137). Only the site in Slough (Preston 1995), recorded any other pottery from the west - Mid-1st C Silchester flint-tempered ware - this despite being sited 10 km from the London-Silchester road. The route from the south-west to consumers in and around Staines-upon-Thames is not clear; only a small proportion of wares from this source found their way to rural sites.

Small amounts of BB1 from the Wareham/Poole area in Dorset reached sites in this area such as Heathrow T5 (Jones and Brown 2011, 13) in the country and Tilly's Lane (Anon 2000, 21) in Staines-upon-Thames. BB1 vessels also began to appear in small quantities at the Prudential site in the town c. AD 120-160 (Jones 2010, 350). Pottery from the Dorset coast appears to have become more significant during the first half of the 2nd century at rural sites such as Perry Oaks (Jones and Brown 2011), as well as town sites, indicating a steady supply from the south, although a specific route (road or river) is unclear.
Three sites in Staines-upon-Thames and Hengrove Farm had assemblages which included a small quantity of late 1st/2nd century HIGH ware sherds (produced between c AD 80 - 160), such as Tillys Lane (Anon 2000, 21) and Friends' Burial Ground site (Crouch and Shanks 1984, 47), suggesting that the distribution of pottery from this source and others in the Lower Thames Valley took advantage of the London-Silchester road, but either through lack of demand or insufficient supply, did not provision the hinterland sites. The pits at the Elmsleigh Centre produced 1st century shell-tempered pottery 'barrels' brought up-river from south-east Essex where they were manufactured from the estuarine clay silts and storage jars produced on the other side of the Thames Estuary in north Kent. It is possible to conclude from this that both these types of vessels may originally have contained live oysters, eels or salt and after the contents were used or redistributed, were kept and reused.

Small quantities of imported fine ware from southern and central Gaul were recorded both in the town (eight sites) and in the hinterland (seven sites) essentially to the north of the Thames River. The distribution pattern suggests that samian ware from the port of *Londinium* probably filtered west along the road through Staines-upon-Thames. Regional vessels from the east of Britain have been noted by Jones at the Prudential site in Staines-

upon-Thames (2010, 350)[307]. Here a few sherds of COL pottery, mortaria sherds from northern Gaul and fragments of beakers from the Rhineland might indicate a slender new connection east at the end of the Early Roman period. Town and country sites (generally not close to the London-Silchester road) seem to have had access to a similar range of pottery (sourced from a generally eastern direction) during the Early Roman period but with no evidence to point to the town acting as a central import/redistribution point.

15.6 Mid-Roman period (AD 150-250)

15.6.1 Roman Braughing

(Appendix O: Table O.3 Mid-Roman pottery data)

Pottery data for Braughing in the Mid-Roman period amounts to very little. The most detailed recordings of MHAD finds - mainly oxidised and red slipped wares (a little early?) - come from Bishop's Stortford and Ware, the former located very close to the kiln sites. Two sites in Bishop's Stortford also produced samian ware sherds (Lezoux CG and Montans SG). The remaining information included in the Table Hay relate to this period, but this is uncertain.

15.6.2 Roman Roman Dorchester-on-Thames

(Appendix P: Table P.3 Mid-Roman pottery data)

Oxfordshire pottery vessels in a variety of fabrics (mainly oxidised, grey, red colour-coated and white wares) were recovered from seven town sites and nine rural sites. Generally the percentage of the assemblage made up from this local pottery was not specified in the published site reports, except at Long Wittenham (Northfield Farm) where it was thought to be around 50%. At a number of the sites it was noted only that local pottery accounted for the majority of fine as well as coarse ware during this period.

Pottery imported from regional sources was particularly scarce, perhaps due to needs being met by the local supply of OXF ware. Only the St. Birinus School site in Dorchester-on-Thames produced any VR ware: 2nd century sandy wares from Brockley Hill; a few sherds of an AH/F vessel (Timby 2010). A small number of sherds of Savernake ware were also noted at St. Birinus School, at Little Wittenham (Castle Hill Environs) and at Nuneham

[307] Details in Jones 2010: Table 6.3.

Courtenay, just at the very eastern limits of the known distribution of this type of pottery (Tyers 1996)[308]. Evidence is clearly lacking for extensive trade in regional pottery here.

Imported samian was found on five rural sites and two Dorchester-on-Thames sites, again in very small quantities, from Central Gaul as would be expected for this period[309]. Each of these sites was located close to the Thames River, as were all those noted for their OXF assemblages, with the exception only of the site at Didcot (Rutherford Appleton Laboratory). This may indicate the use of river transport, but aside from this the pattern of pottery distribution is similar to the Early Roman period, suggesting that established networks continued in use.

15.6.3 Roman Ewell

(Appendix Q: Table Q.3 Mid-Roman pottery data)

Sherds of coarse grey ware have been recorded in varying amounts at many sites in and around Ewell in this period, although distinguishing earlier and later pottery from that of roughly 2nd century AD is difficult. The manufacturing sites from this period are as yet undetermined.

Of the regional wares recorded with some certainty, OXFWW mortaria sherds were found at three sites in the town. The same frequency can be claimed for VWW, which accords with Orton's claim (1997) that the latter declined from 10% in AD 70-200 to less than 2% between AD 200-350. Fewer sites, two, and both in the town, included NVCC sherds. BB2 (? identification) occurred on four sites in Ewell and on three rural sites, although this pottery is thought to originate near London, the exact origin is unknown. Apart from Burgh Heath where more than 59% of the assemblage is thought to be derived generally from NK kilns; the two sites at St. Mary's, and Grove School, seemed to include early Roman Hoo vessel sherds in this phase. The latter wares, and the BB2, may attest to the continued use of an east-west trackway across the North Downs as the route taken by the pottery. Obtained from the opposite direction, seven town and hinterland rural sites (Burgh Heath and Mansfield Road, Chessington) recorded AH sherds and vessels from this source dominated. At 10 Purberry Grove, Ewell, the origin of an early 3rd century AD jar was thought to be the Six Bells kiln site at Farnham (Abdy and Bierton 2006, 131). AH/F is

[308] http://potsherd.net/atlas/Ware/SAVG [Accessed 13.06.2017]
[309] Only Beech House had a notable quantity of SG samian.

also credited with supplying the pottery found at Glyn House and The Grove (Pemberton and Harte 2011).

Samian dated to this period is, as would be expected, predominantly from Central Gaul and largely recovered from sites in the town. Additional imports include KOLN and Trier sherds from St Mary's Church Meadow and Pompeian Red ware and white ware from the Churchyard, close to the northern entry point to the town on Stane Street. As with the regional ware, there does not appear to be a concentration of imported pottery in the town in this period, which rather points to this evidence as being the result of independent acquisition, rather than central marketing.

15.6.4 Roman Neatham

(Appendix R: Table R.3 Mid-Roman pottery data)

The pottery data for Mid-Roman Neatham is limited and some reliance is given to unspecified pottery to mean AH ware. Dates are not always clearly attributed. The seven miniature pots discovered at Wheatley and often cited, whilst locally made and thought to be from this period, may actually be earlier (Lyne 2012, 18).

There is evidence for samian (CG and EG) in Mid-Roman Neatham[310] with consumption peaking in the mid- to late 2nd century AD, before falling in the early 3rd century AD. The examples of Area B and Area C are both close to the main roads. Millett and Graham have argued that this trend is typical of a town (1986, 67-8), contra to Willis who has demonstrated that the frequency of samian in pottery assemblages is generally less in small towns than in larger towns (Willis 1998, 89). Imported wares were not recorded at the other town sites or at any of the rural sites from this period which suggests that small amounts, for individual households, were obtained from personal connections or traders using the road, but that imported fine ware was not marketed from Roman Neatham.

Reduced samian presence after the 2nd century AD is a general phenomenon related to the nature of output at the manufacturing centres. The corresponding expansion of regional potteries in Britain in response to consumer demand can be seen to a limited extent in the Neatham record. The development of the Alice Holt industry later in the 3rd century AD

[310] Proportions of samian from the 1969-79 excavations of Neatham (Millett and Graham 1986, 68):
S. Gaul – 29 (7.3%) C. Gaul – 215 (54.4%) C. or E. Gaul – 69 (17.5%) E. Gaul 82 (20.7%)

appears to coincide with the expansion of Roman Neatham (Millett and Graham 1986, 157; Burnham and Wacher 1990, 269), but whether the expansion of the town increased the demand for local pottery, or the expansion of local kiln sites drew migrants to the town, or some other stimulus came into play is difficult to assess. Lyne and Jefferies believe that the likelihood of Neatham acting as a market centre for pottery goods after AD 150 progressively diminishes if the percentages of these wares distributed to towns further afield is taken into consideration (Lyne and Jefferies 1979, 58). The data collected for this present study tends to agree with this observation. Competition between regional pottery industries is complex and generally distribution of later Roman pottery has been shown to fall away with increased distance from the source kilns (Hodder 1974; Fulford and Hodder 1974). The late 2nd century AD contraction of the AH pottery distribution area to the west is thought to have been the result of losing out to competition from Dorset manufactured BB1 vessels. The former maintained a strong presence to the east in Roman Ewell (Lyne and Jefferies 1979, 54). Lyne and Jefferies see the BB1 wares as the main competition for AH wares at this time[311], further borne out by the identification of sherds of AH black burnished ware. According to Millett and Graham other regional pottery, NV wares and BB wares, do appear in the Neatham area during this period (1986, 87, 89) although none is detailed in the data collected here.

15.6.5 Roman Staines-upon-Thames

(Appendix S: Table S.3 Mid-Roman pottery data)

Pottery identification in the source material for Mid-Roman Staines-upon-Thames is for many records, vague, and it is therefore only possible to make circumspect observations for the distribution of vessels in this period.

Of the sites excavated within the town, the most detailed recordings attest to the dominance of locally produced coarse and fine wares with the addition of small amounts of regional and imported wares. The County Sports site (Jones 2010) produced a large assemblage (2050 sherds) for the Phase 5 (Mid-Roman)[312] context which was made up of 64% coarse ware (grog-tempered) and 258 sherds of orange fine ware: all locally sourced.

[311] A strong supply of BB1 has been noted in Southwark at this time (Rayner and Seeley 2008 193).
[312] Staines digital supplement tables: Table 3.5 County Sports. Roman pottery: distribution of fabrics by phase, expressed by sherd count, weight, and EVE.s and Table 3.7 County Sports. Distribution of Roman finewares by phase, expressed by sherd count, weight and EVEs and Table 3.8 County Sports. Relative proportions (percentages) of Roman finewares in each phase, expressed by sherd count, weight and EVEs

Similarly, the Central Trading Estate excavations (McKinley 2004) produced very large amounts of grey ware (23308 sherds) and a small quantity of grog-tempered sherds (172); the Tilly's Lane and Friend's Burial Ground sites recorded locally produced wares. Only the Perry Oaks/Heathrow T5 excavations produced notable amounts of grog-tempered, oxidised, sandy, and shelly wares, whilst grog-tempered wares were probably common on the Hengrove sites but dates here are uncertain. This data appears to be at odds with the belief that the Colne Valley pottery industry collapsed sometime after AD 200 (Bagwell 2002, 35) although this may simply be explained by the continued use of existing vessels between AD 150 and 250. The town was more reliant on this local pottery than the hinterland rural sites, although only a few were apparently active during this period.

A range of regional wares is represented in the data from the Mid-Roman period (Crouch and Shanks 1984, 3), perhaps supplying demand no longer fulfilled by local kilns. Coarse and fine wares documented at the Tilly's Lane site included sherds from the NV, *Verulamium* and Brockley Hill (white and oxidised wares), OXFWW and AH. The latter two industries were also the main suppliers of vessels identified at the Perry Oaks rural site (Jones and Brown 2011). AH pottery is thought to have made a resurgence during this period (Bagwell 2002), pushing into the London and eastern market areas, but is not particularly prevalent in the Staines-upon-Thames area. This may be due to the use of an alternative distribution route from Alice Holt across country to south London (?Ewell-Southwark).

Dorset BB1 wares were considered common finds on the Central Trading Estate site for AD 120-200 (Phase II) by McKinley (2004, 48), County Sports, Old Police Station, the Prudential and Tilly's Lane sites, as well as on four rural sites. All of these finds may relate to the earlier part of the Mid-Roman period as evidence from the Friends' Burial Ground site indicated that BB1 wares and other products from the Dorset coast, such as Purbeck marble, were no longer supplied after c. AD 180/190. This, Crouch and Shanks, have argued, was due to a general decline in Staines-upon-Thames (1984, 59). The significant supply of BB1 to Southwark in the 3rd century AD (Rayner and Seeley 2008, 193) is unlikely then to have arrived via Staines-upon-Thames.

Two town sites (Elmsleigh Centre and Friends' Burial Ground sites) included COL wares; one town and one rural site had NV wares; three town sites and Hengrove Farm had 'London' wares. The presence of pottery originating to the east of Staines-upon-Thames,

along with, predominantly, Central Gaulish samian sherds on five of the town sites and three rural sites; Rhenish beakers (LEZ or Trier) on two town sites, attests to the strength of trading connections with *Londinium* and eastern regions of Britain. This is only mitigated by the modest presence of OXFWW at five town sites and two rural sites to the north of the town.

15.7 Late Roman period (AD 250 – 410)

Two general points should be made about pottery assemblages dating to the Late Roman period. Firstly, pottery profiles are complicated by residuality and the incorporation of pottery from an earlier date. Secondly, there are widely recognised problems relating to survival and identification of deposits from this period, concerns which have long been debated (e.g. Reece 1980). The nature of these issues and the character of pottery assemblages analysed from significant large town sites have contributed to an informed approach to appraising the data for this present. At Southwark and *Londinium,* for example, it has been noted that markedly less imported pottery[313] was entering these communities during the Late Roman period, compared to previous periods, although a broad range of vessels were obtained (Cowan *et al.* 2009, 95). Similarly Late Roman Silchester, during the Mid-3rd to 4th century AD, has revealed pottery sherds from the expanded regional industries: OXF (Esmonde Cleary 1989), AH, Poole Harbour, NF, Overwey, LNV, MHAD (Marsh 1978) and HAR wares (Timby 2012, 138).

15.7.1 Roman Braughing

(Appendix O: Table O.4 Late Roman pottery data)

The pottery data record attributed to this period is limited. Local MHAD ware is only known from the settlements in Bishop's Stortford and Ware. These settlements also produced evidence for a small number of sherds of COL, VR, NV, SV, BB1 and OXRW, but given the issue with residuality it is not safe to conclude that these items were obtained and in use together. With the Hadham pottery industry at its height in the 4th century AD (Tyers 1996; Landon 2010) it might be expected that Roman Braughing would have played a role in marketing these wares. However, the apparent expansion of the MHAD market area to the south (London) and into East Anglia, put the small town in a poor location, although a market centre role is favoured by Stewart Bryant (*pers. comm.* 2014). Arguably

[313] A pattern seen across Britain (Fulford 2013) and attests to a smaller population in the London area during this Roman period.

the flimsy evidence in support of this is put down to lack of thorough or consistently reported data (*ibid*). The Hertfordshire HER records are vague in this respect.

Finds from Boxfield Farm (Going and Hunn 1999) just outside the study area to the west, do include MHAD grey wares in significant amounts. Quantities of MHAD red ware were found to exceed those of common OXFCC ware during this period by 11:1. Boxfield Farm has an earlier history of pottery obtained from a wide range of sources[314]. This demonstrates that trading connections were likely to have been individual to sites and maintained over time, rather than a manifestation of central marketing.

15.7.2 Roman Dorchester-on-Thames

(Appendix P: U.4 Late Roman pottery data)

The manufacture of OXF pottery was centred just to the north of Dorchester-on-Thames, and these wares are present in many Late Roman assemblages here (Booth *et al*. 2007; Beckley and Radford 2012), as might be expected. Five sites across Dorchester-on-Thames had substantial assemblages made up of OXF red colour-coated fine ware and mortaria. For example, 30.7% (sherd count) was recorded at St. Birinus School (Timby 2010, 3-4). Kiln waste made up of this type of pottery was found at the Allen's Pit kiln site[315] indicating that this type of ware could have supplied Dorchester-on-Thames from close-by (Booth *et al.* 2007, 304). In fact, 22.5% OXF ware is thought to have been very locally sourced (Bird and Dickinson 1984).

By comparison, the range of OXF wares appears to have been much more varied on rural sites where assemblages included white ware, parchment ware, white slipped ware, grey and oxidised ware as well as red colour-coated ware. The prevalence of OXF fine ware occurs in the context of the termination of samian imports to Britain which had ceased by c. AD 250; very little samian is recorded at any site in the area. This is typical of the general pattern of distribution in Britain (Bird 2015, 1) with the Oxfordshire potters thought to have exploited the cessation of imported samian in the 3rd and 4th centuries by increasing fine ware production (Esmonde Cleary 1989, 86; Henig and Booth 2000, 165).

[314] A wide range of earlier wares were recorded on this site (Waugh 1999, 88-135; Dickinson 1999, 84-87),
[315] Brown and Booth (2010, Table A6:1 page 2) argue that "the importance of the immediate Dorchester area as a source of pottery supply to Mount Farm and neighbouring sites for most of the Roman period seems assured. Almost the full range of Oxfordshire products, including oxidised and white-slipped fabrics in addition to those already mentioned, is likely to have been produced at Allen's Pit alone."

Although dominated by fine ware, a mix including OXF coarse ware was particularly noted at some sites: 80 High Street (Carlsson 2010), at Blackbird Leys (Richmond 1995) and Winterbrook, Wallingford (Lewis 2009).

Nevertheless, the location of Roman Dorchester-on-Thames was not especially suitable as a redistribution centre for OXF ware. The nearest major kiln sites include those at Cowley, Blackbird Leys (7 km to the north) and Foxcombe Hill (10 km to the north-west) (Willett 1948)[316], some distance away. For the northern and western rural sites, such as Abingdon, distribution via Dorchester-on-Thames would have meant a circuitous route from any of the most well-known potteries (Henig and Booth 2000, 165 *Fig.* 6.7). At Barton Court Farm[317] Late Roman grey wares have been attributed to the nearer kilns at Sandford and Boar's Hill, 5km to north (Bird and Dickinson 1984, V.3.7), in fact 80% was apparently supplied from within five to ten kilometres (*ibid* V.4.1). The data shows that the small town and the rural hinterland sites were supplied with OXF wares by a number of local potteries, but not that this was centrally organised through Roman Dorchester-on-Thames.

Other than OXF ware, sherds of BB1 vessels were recovered from a number of sites in the town and countryside, but as these were generally small quantities and dates were often uncertain, little can be said about the presence of this type of ware[318]. However, Ford (1990, 34) did note at Lollingdon Site 1 that 13% of the pottery assemblage comprised local copies of BB1 vessels (compared to 1% genuine Dorset ware), which does follow the established trend for local Oxfordshire potteries to replicate regional wares for local consumption.

Of other regional wares, two rural sites had evidence of vessels from the Midlands: 7% of the assemblage at Barton Court Farm (Miles 1984) proved to be HAR cooking and storage vessels; Timby mentions that examples of shelly ware were found at the Dicot sewerage scheme site (Anon 1998, 12). A small number of NVCC sherds were in evidence at three sites: Barton Court Farm, Appleford and St. Birinus School on the edge of Dorchester-on-

[316] http://oxoniensia.org/volumes/1948/willett.pdf
[317] According to Bird and Dickinson (1984, V.4.1) the local potteries in this area dominated pottery supply to local sites; of the Late Roman pottery at Barton Court Farm, 80% was supplied from within 5 to 10kms. At Dorchester-on-Thames this equated to 22.5% .
[318] The low percentage (2%) of BB ware from Dorset may have been due to competition from locally produced grey ware (Bird and Dickinson 1984, V.4.1).

Thames. Late 4th century storage jars attributed to the AH/F potteries[319] were recorded at the Station Inn site, Abingdon, and a few sherds from the same source at Castle Hill, Little Wittenham. This points to limited demand for pottery produced outside the Oxford region, possibly for specific forms, obtained independently by sites rather than from a centralised source.

These findings bring into question Henig and Booth's claim that the distribution of local and non-local goods in Oxfordshire, 'took place in markets established in the larger nucleated settlements' (2000, 172) and that a significant fine and specialist pottery differential can be identified between different types of settlements (2000, 173 Fig. 6.11). Henig and Booth have argued that 1st and 2nd century sites with the highest proportion of fine and specialist wares in their percentages were rural ones, but that by the 3rd and 4th centuries Dorchester-on-Thames had much higher proportion as the result of the formation of a partial 'free market' by the Late Roman period (2000, 174). Although such a shift is not clearly demonstrated in this study, the incorporation of earlier pottery into the data for this period coupled with a lack of detailed composition analysis restrains confident interpretation.

15.7.3 Roman Ewell

(Appendix Q: Table Q.4 Late Roman pottery data)

A number of the Ewell case study sites indicate a concentration of vessel remains for this period, particularly the late 4th century AD, but no detailed breakdown of the data has been recorded. Where some details are available, for example for coarse ware, these are sketchy. At the Ashtead junction site seven 4th century AD dark grey/black ware bowls were identified (Lowther 1930, 199-202) but these may have been local or regional imports. Similarly, at the Beddington villa site, grog-tempered and shell-gritted wares were recovered from Late Roman contexts (Howell 2005), but no origin was given[320]. Nonetheless material from most of the major Late Roman pottery sources in southern Britain is represented in the Ewell area, but in very small quantities. A few BB sherds (?1, 2 or other) were noted but only from sites within the town (Orton 1997; Pemberton and

[319] According to Booth *et al.*(2007), AH/F products penetrated the market at least as far as Oxford, potentially utilising the waterway including the Wey and the Thames rivers, thereby including Dorchester-on-Thames and its hinterland.
[320] Handmade grog-tempered ware, probably manufactured in West Kent (Lyne 2016, 105). Also present at Skerne Road, Kingston-upon-Thames (*ibid*).

Harte 2011). OXF ware sherds were not commonly found within the town and the only hinterland examples of any note were those of Woodlands Park, Leatherhead (over 8 km from Ewell) which included the remains of 16 bowls, 21 jars, 3 beakers and 13 mortaria dated to AD 270-400 (Hall and Stanley 2008). Given the dearth of OXF ware in the small town it is unlikely that the Leatherhead residents purchased the pottery from here. PORD ware, manufactured in this period on the Surrey/Hampshire border, was recovered from six dispersed sites: Ashtead Junction; Lower Coombe Street, Croydon (5.5% from Pit 89); Beddington Villa; an AD 330-400 jar (PORD or Overwey) from Skerne Road, Kingston-upon-Thames (Bradley 2002); an AD 350-400 collection of 67 bowls, 68 jars, three dishes and a one flagon from Woodlands Park; sherds from Church Meadow and Grove School (1.4%), Ewell. Lyne (2011, 205) has argued that the proportion of AH/F and PORD/Overwey at Lower Coombe Street is higher than at London (the Billingsgate site) which he puts down to Croydon being nearer the potteries, particularly if, as he claims, the latter were the product of a kiln sited just to the north of Brighton (and not the Surrey/Hampshire border) and were transported along the London-Portslade road. Aside from this scenario, the assemblage percentages of PORD wares, where given, were lower than expected for this area[321].

The only site with significant data for VR ware for this period was that at Kingston-upon-Thames which registered 8% white ware (of 485 sherds) for the period AD 240-300; arguably this location beside the Thames River had easier access to this ware. By contrast, NV wares, particularly fine ware beaker sherds, were only found on sites within the town, possibly at the southern extreme of the distribution of these wares via *Londinium* and thence Stane Street. The fine ware beaker remains from the Croydon site further east, originated from the kilns in North Kent (Taylor *et al*. 2005a, 2005b).

In a similar vein, AH/F wares might be expected to be significant on the majority of the sites in and around Late Roman Ewell (Lyne and Jefferies 1979, 56). In fact, this material is only clearly represented on four town sites and four hinterland sites. Figures for the town are particularly low or vague. Only the King William IV site (Orton 1997) is credited with as much as 50% AH/F for the period AD 250-350, and that for a small assemblage of only 55 sherds. The Kingston-upon-Thames site[322], perhaps with access to these wares via

[321]Tyers quotes 5-10% for the assemblage quotient for PORD in 4th century Surrey and London sites http://potsherd.net/atlas/Ware/PORD [Accessed 12.7.2017]

[322] Very little Roman occupation evidence has been found around here despite a number of excavations (Bradley 2005, 171).

river transport, recorded relatively more: 76% (of 485 sherds) dating to AD 240-300 (Bradley 2002, 2005). The Leatherhead site, close to Stane Street and closer to the potteries than Ewell, included a range of AH/F vessel sherds dating to AD 250-400 (Hall and Stanley 2008). Sherds from a variety of vessel types found at Walton-on-the-Hill were identified by Lowther (1950, 81) as having been manufactured specifically at the Farnham kilns (e.g. a jar from Snailslynch kiln). Thus, the marketing and distribution of AH/F wares in this period are, again, unlikely to have been conducted through Ewell, but perhaps obtained directly from the kiln sites.

The settlement at Southwark would have required a supply of pottery vessels as no local kilns sites are known. Site 56 at Borough High Street may have fulfilled this function but the large number of 3rd century AD bowl 'wasters' of a form similar to Camulodunum 306 discarded here, have not been found in association with a kiln (Cowan *et al*. 2009, *Fig 12,* 30; 110). On current evidence, even coarse ware pottery for use within Southwark[323] would have to have been purchased from elsewhere; from the south and south-east potentially via Roman Ewell.

Pottery was also traded in the opposite direction, southward from *Londinium*, across the Thames and along Stane Street (Pemberton 2011, 246; 2015, 35; Lyne 2011, 205). Again Ewell would have provided a logical market location. However, the varied pottery finds suggest a more complex movement of goods in the area incorporating not only the main roads (including the London-Portslade route) and river system, but also a long-standing trade route east-west (and west-east) along the North Downs. AH/F, PORD/Overwey, Dorchester BB1 wares found at Ewell are likely to have been obtained from traders or travellers *en-route* from the south-west to the markets in Southwark and *Londinium.* There is no evidence to suggest Roman Ewell functioned as a commercial focus for pottery trading and assemblages exhibiting a high proportion of AH ware were probably sourced direct from the potteries.

15.7.4 Roman Neatham

(Appendix R: Table R.4 Late Roman pottery data)

[323] For pottery data tables for 25+ sites in Southwark see Rayner and Seeley (Cowan *et al.* 2009, 206 – 229).

The data for this period exhibits a wide range of regional pottery available to the residents of the town and rural sites, including that apparently used at pottery kiln sites. Fine ware remains are characteristically red or purple colour coated wares, perhaps replacing earlier traditional samian table ware[324]. Local red fine ware may have supplied demand before the supply of OXF and NF fine wares became widely available at the end of the 3rd century AD (Millett and Graham 1986, 70). Recorded amounts of local fine ware are relatively modest – even the town sites did not exceed 10% (n not specified) (Millett and Graham 1986). Millett and Graham have argued that from their evidence it would appear that the town residents chose better quality vessels where there was a choice (1986, 89). This choice would have included OXF wares and NF wares, the latter accounting for 3-5% of total pottery by the late 3rd/early 4th century AD (Millett and Graham 1986, 69-70). NF vessels and mortaria sherds were also both found only within the town (*ibid* 64, Table 20) These white ware and red ware mortaria remains appeared in only slightly lower numbers than those of OXFWW mortaria sherds (1986, 76 and Table 52, 73).

Apart from OXF and NF wares, a local difference is apparent in the distribution of regional wares (Appendix R: Table R.5 and Table R.6). NV wares were noted on eight excavation sites[325] within the town dated to c. mid-3rd century AD (Appendix R: W.6); four rural sites produced a small number of LNV beaker sherds. Rural locations also accounted for the small number of PORD/Overwey/Tilford and Rowland's Castle sherds (Holybourne and South Hay). Notably hardly any BB1 vessel sherds were present, representing only c. 1% of seriated assemblage totals for mid-3rd to mid-4th centuries AD (Millett and Graham 1986); a small quantity was recorded at the Holybourne Depot site (Manning 2009). The reason for this probably lies in the more readily available locally produced everted-rim jars, dishes and bowls, which were very similar to those produced in Dorset[326]. If a town/rural difference in regional wares can be justifiably argued from the data available, it might be tentatively suggested that beakers were more in demand in the country and mortaria in town, thereby attesting to choice determined by vessel form rather than source. Overall, this is a very consumer-led picture with regional imports and a local industry responding to demands for different fine ware styles. This could point to a market

[324] Complete Rhenish ware vessels produced at the end of the 3rd century AD (Millett & Graham 1986, 75) may also have fulfilled this function.
[325] Considered only a modest amount by Millett and Graham (1986, 75).
[326] AH/F produced bowls, dishes and everted-rim jars appear to have replaced BB1 types imported from the Dorset area.

attracting multiple pottery tradesmen or individual purchases through intermediaries or direct from kiln sites.

Other than the intrusion of certain regional wares, AH/F pottery dominated all the excavated town features listed in Millett and Graham's table: assemblages comprising at least 85% AH/F wares (1986, 64, Table 20). These figures represent the whole Roman period, although the authors stress that much relates to the Late Roman period. The pits excavated at Structures 9, 10 and 11, included 4th century pottery and peculiarly, 'wasters'. The presence of wasters is hard to account for – heavy material to be carted several kilometres for disposal - but as presumed waste from the AH kilns, Millett and Graham have argued that this is evidence of a link between Neatham town and the potteries (1986, 23). A re-evaluation of these vessels may be worthwhile with the aim of confirming the AH 'waster' status.

The AH/F pottery industry grew in the years after c. AD 250 (beginning of the Late Roman period) in terms of production and distribution area (Peacock 1982, 112; Millett and Graham 1986, 89). Millett believes that Neatham's growth in the 3rd and 4th centuries AD was in response to this development. If so, this would attest to the residents of the town being involved in production and the marketing of finished wares. At Roman Staines-upon-Thames the proportions of AH wares rose at this time from 19% to 66%, with evidence of these wares distributed a greater distance to *Verulamium* (Lyne and Jefferies 1979, 58). The proportion reached 51% at the Billingsgate bath house in *Londinium* (1979, 58) and 48% at Silchester (Lyne and Jefferies 1979, 56, 58). Further expansion of the industry occurred after AD 350, with storage jars in particular reaching roadside sites to the north of *Londinium*, and as far as Heybridge (Essex) and Ware in Hertfordshire (Lyne and Jefferies 1979, 58). This expansion to the north and east is credited to an increased volume of pottery vessels transported both along the Thames River and via Stane Street (through Ewell and Southwark). Further west, Lyne and Jefferies have traced the distribution of vessels along the Silchester-Alchester road, although according to the data for this present research only one of the Abingdon sites had any record of this ware. A high demand for AH wares was not echoed to the south-west of Neatham where Winchester sites registered only 11% AH wares. Lyne and Jefferies also note for this period a 'linear marketing' of storage jars (Class 1A, 1C, 4) and flagons (Class 8) along roads to and from sea ports (1979, 60), the jars may have been containers for products of the local bee-keeping industry (1979, 57). Whether empty vessels or filled containers, the

geographical location of Neatham at the crossroads of two important routes does not appear to have influenced the direction in which Alice Holt products were marketed and there is no evidence to suggest that Neatham played any role in the logistics of this distribution. Even Lyne and Jefferies admit that 'Neatham, situated west of the potteries, is rather badly placed for this trade' (1979, 58).

15.7.5 Roman Staines-upon-Thames

(Appendix S: Table S.4 Late Roman pottery data)

During the Late Roman period the large regional pottery industries of Oxfordshire and Alice Holt/Farnham dominated the supply of vessels to Staines-upon-Thames and the hinterland sites according to Jones and Brown (2011, 19-20). Along with NV wares, these sources are thought to account for the majority of pottery used here, certainly at Heathrow T5, Harlington and Horton (Jones and Brown 2011, 19-20). These claims are not, however, easily discernible from the data collected for present study. Indeed Jones and Brown admit, contradictorily, that comparative sites in the town are limited (*ibid*).

According to Crouch and Shanks (1984, 53-59) a great deal of pottery was supplied to Roman Staines-upon-Thames from the Alice Holt/Farnham potteries at this time, to the extent that, as Jones believed, the town acted as a redistribution centre for the London area (2010, 27). McKinley, on the other hand, favours London as 'the main distribution centre' (2004, 55). This is feasible if AH/F wares were transported to the south coast, joining coastal trade around Kent to the port warehouses at *Londinium*. The two rural areas closest to the Thames River (Laleham and Thorpe), are lacking evidence for these wares, which may attest to AH pottery not being transported via river, contra Crouch (2000, 100), but via the London-Silchester road. However, McKinley has recognised that whilst the assemblage at the Central Trading Estate is dominated by AH coarse ware, such remains are not uniformly distributed across the town (2004, 55).

Newly established potteries at Overwey and Tilford (possibly part of the wider Alice Holt/Farnham industry) supplied three sites in the town. Of these, at the Old Police Station Overwey coarse wares combined with AH wares accounted for 85%[327] of the assemblage (Poulton 2001). Overwey/Tilford pottery was also found in significant quantities on four

[327] Lyne claims around 75% for AH coarse ware in Staines-upon-Thames as a whole, compared to a minimal amount at London sites (Lyne 2005).

of the rural sites around the town, with a possible fifth at Laleham, not always in association with AH wares. In contrast, PORD wares from the late 4th century only appear to have been recorded on rural sites. At Harlington, Elsden noticed that quantities dated to c. AD 350 to 400 were markedly greater than at comparable sites in *Londinium* (1996, D iv). A few sherds of PORD were also noted at Datchet, a site which Martin (2010) considered to rely almost entirely on local wares. The data points to pottery in the Staines-upon-Thames area individually sourced from small production centres to the south-west.

The supply of BB1 vessels, apart from a few sherds at Wraysbury, were apparently supplied exclusively to the town where four sites note the significant presence of these types (by sherd number and percentage figures). The trend for trade connections with the south-west might be further justified by McKinley's note of a grey ware storage jar tentatively attributed to Norton Fitzwarren in Somerset (2004, 55). Both *Londinium* and Southwark were receiving large quantities of Dorset BB1 during the period c. AD 250–300, and along with BB2 and Thameside grey wares these made up the bulk of the coarse ware in most assemblages from the City and Southwark. Outside London, for settlements like Roman Staines-upon-Thames, the percentages of such wares were much smaller (Lyne 2005, 178), filtering out from the city.

Of the fine wares, OXF vessels dominated the assemblage for this period at the Central Trading Estate site (McKinley 2004, 55), but OXF wares varied in amounts at other sites in the small town: from significant at Tilly's Lane (Nowell 2000, 21) to only one sherd at County Sports. Five widely distributed rural sites also recorded OXF fine wares dating from this period. The generally favoured explanation is for OXF wares to have been transported down the Thames River (Crouch 2000, 100) and this would fit the distribution pattern in and around Late Roman Staines-upon-Thames.

15.8 Summary comments

The quality of pottery reporting has much improved in recent decades and although reports in volumes, such as that of Millett and Graham on Neatham (1986), were good for their time, much of the early recorded data for the case study sites has been of a lower standard. It is reasonable to suppose that in some instances, lack of time and money and the benefit of modern expert analysis has, for example, led to the preferential recording of well-known pottery types over local coarse/grey wares. Nevertheless, it is this data which has hitherto

formed the basis for the claims for small town market centre status and recognition of apparent weaknesses has been an important factor in re-evaluating the claims.

The expectation of small towns functioning as market centres for pottery distribution is influenced by the geographical locations of the case studies in relation to London, their being on communications routes and with access to pottery industries. However, often the towns were actually not in a good location to redistribute pottery from local industries or that imported into the area. Where sites consumed a range of pottery from different sources, these were rural as often as town sites and with assemblages often dissimilar in composition. Rural sites closest to the small towns were not found to have access to a greater range of pottery than those further away, although this does not take into account differences in site 'status'. Coupled with the lack of evidence for storage rooms or shops selling pottery in the case study small towns, it is unlikely that the towns were market destinations in themselves. Fulford has recently asserted that as far as distribution patterns can be discerned generally for rural areas, the value of the pottery (fine or coarse ware) does not appear to be an important factor in the perceived distribution pattern (2017b, 360). This can be seen in this present study.

It has traditionally been assumed that short distances and water transport represented the cheapest transport options and that long distance haulage for coarse ware would not have been commercially sound. This may not have been the case. If mixed cargoes (by road or water) were normal, as attested by shipwreck examples, and goods exchanged for other goods rather than coins, the idea of 'value' may have been different to that of a modern economy. Combined with the idea that goods travelled with settlers to sites (town and rural) or were obtained via personal contacts, it is easier to accept that central marketing of pottery through small towns may not have been typical.

The continued use of military routes for imported samian for the civilian market may be generally underestimated. Originally imported for the Roman military in Britain, pottery from the Rheinzabern kilns is thought to have been distributed to the later civilian market via similar routes: major roads and coastal vessels. Post-Boudican assemblages in *Londinium* (RCP1B) and Borough High Street in Southwark have been shown to indicate a decline in imported samian paralleling a rise in VR and AH/SU[328] (Drummond-Murray and

[328] By the 2nd century AD (Early/Mid-Roman) at Borough High Street 75% of oxidised wares were obtained from VRW (Drummond-Murray and Thompson 2002, 180).

Thompson 2002, 179). Regional pottery may have been transported to the riverside warehouses of London along previously military routes.

Traditionally pottery distribution, despite being poorly understood in Roman Britain, has been used as a proxy for the distribution of other household goods. Comparison with quernstone distribution (Chapter 14) does suggest that distribution patterns shared common characteristics. For example, for the whole Roman period, rural sites had access to a wide range of sources for pottery and quernstones. This is evident from the mix of sources and typological variety typically seen amongst collected quern and pottery samples. Small town residents took advantage of roadside opportunities to obtain pottery and other goods. At the same time rural sites predominantly obtained goods via established socio-economic networks – this is particularly evident in the Early Roman period – and ancient trading routes such as along the North Downs continued to be viable. Neither pattern is commensurate with centralised marketing. The mechanisms through which the production and distribution of pottery were organised at any period under Roman authority remain elusive, but it would be fair to say that pottery finds are likely to represent the conflation of more than one distribution method or network over the Roman period, unsurprisingly given the large time scale.

Discussion

16.1 Introduction

This chapter discusses the findings of Section 2 (Chapters 5-9) and Section 3 (Chapters 10-15) which have resulted from the systematic review of the data for the case study small towns. In terms of the original contribution made by this study these findings are held to have met the two objectives set: the first, to re-evaluate the claims for a 'market centre' function; the second, to propose a new evidence based economic role for these settlements. The findings are considered in reference to the research approach and method used, the challenges encountered and solutions employed and gives an indication of where improvements in the design of this research might be made and the impact on this field.

16.2 First Objective - the material evidence for market centre status

Although incidental remarks in the literature have noted that small towns seldom appear to have developed into market centres (Condron 1996), previous to this present study this had not been specifically researched. Interest has been shown in the interaction of small towns with the countryside (Hingley 1989) and as part of provincial (Mattingly 2006, 379-427) and regional landscapes (Todd 1991; Condron 1996; Taylor 2013). Given this conceptual background, subjecting existing archaeological material to a systematic review has proved a fruitful approach to meeting the first research objective of appraising small town market centre status.

The findings of this research have shown that the idea of market centre function for these five places has resulted from the conflation of several speculative elements:

- The conventional geographical determinants of a central place location in an agricultural landscape, with radial connections via major roads to centres such as *Londinium* and Silchester.
- The proximity of Roman Braughing, Dorchester-on-Thames and Neatham to contemporary pottery industries has led to the presumption of a commercial connection between the two.
- The enthusiastic interpretation of just one or two finds has been extrapolated, unjustifiably, as the basis for central market status. For example, the single find of a discarded *collyrium* stamp at Roman Staines-upon-Thames and a medical centre.

- General reliance on the expectation that local and transient consumers might require centrally available goods and services, and the presumption these existed in small towns.
- The presumed impact of LIA features in defining Early Roman settlements. It has for example, been argued that the town status of Roman Braughing stemmed from the prominence of high quality imported pottery finds dating to Early Roman occupation at the Skeleton Green site (Partridge 1981) and a tenuous link to LIA coin minting. At Ewell, objects dating from the LIA and thought to be ritual deposits in the Hogsmill stream have been lauded as evidence of an Early Roman religious centre. This idea sees the small town evolving from a traditional local focus to fit with the modern geographical idea of a central place (first bullet point above) and thereby fulfilling an economic/exchange role.

Clearly past belief in market centre status is the result of deductive reasoning based tenuously on an odd assortment of very modest features and finds. The doubtful veracity of these deductions has in this study led to the more convincing use of inductive reasoning to arrive at an evidence based interpretation of these towns.

16.2.1 Historical perspective – medieval and later periods

The settlements of Staines-upon-Thames, Braughing village (just to the north of Roman Braughing), Ewell and Dorchester-on-Thames are all documented market centres either in the medieval or later 17th century periods. Later medieval market buildings, street patterns and contemporary documents[329] have long been used retrospectively to provide the raison d'être of small towns in the Roman period (Hingley 1989, 113). Only rarely has caution against this approach been raised (e.g. Willis 2007, 145). Jones pointed out some decades ago, that in terms of urban activity in Roman Britain very little evidence has been found of exchange or production (non-quantifiable and probably only demonstrable at a craft, not industry level), or of a 'merchant class' even in the larger towns (1987, 51). This may simply be due to lack of evidence. Nonetheless, the idea of a medieval market centre may itself be something of a myth. Dyer's work on this later period (AD 1300-1600) concluded that exchange largely took place on an informal basis door-to-door, on occasion at a local manor house, but not via a centralised market (2000, 104).

[329] Although not previously Roman, Skipton in North Yorkshire is a classic example. Skipton received a charter in the 12th century from King John to hold the first markets, a tradition which survives today in four general markets held each week and a permanent cattle market on the edge of town.

However, the defining features of later (medieval and after) towns in terms of farmed land, gardens and the use of open spaces in the urban landscape, may offer more positive analogy as yet unexplored. The description of the city of London in the late 12th century by FitzStephen[330] acclaimed the lush meadows, livestock pastures and arable fields producing grain which were part of the city landscape. Such an ill-defined urban-rural boundary[331] resonates with the urban morphology of the case study small towns and the findings of the agricultural data review. FitzStephen also remarked that goods brought in from the surrounding countryside were marketed informally at events held in the grassy areas outside the old Roman walls; if this practice was common in Roman Britain it would leave little to find in the archaeological record. There may also be similarities between the agricultural basis claimed for roadside settlements (Smith 1987) and those argued here for small towns.

16.2.2 Road network and water transport

Reference to the Roman road network in Britain is ubiquitous in literature and site reports, and known stretches (first drawn and published by Margary 1948;1967) continue to attract a disproportionate amount of archaeological attention and arguably overemphasise the role of these roads in the life of the province. Fulford has only recently stressed the importance of the road network in the economy and the movement of goods and people, pointing to roadside settlements as potential exchange foci, trading and engaging in business with road travellers (2017b, 361-2). This reflects the traditional view. The findings of this study suggest that rather than focal points, roadside business was casual and that small towns (perhaps differing from roadside settlements) provided for themselves having no reason to venture far along the road and probably making very little contribution to a wider provincial economy. Fulford does concede that merchants may have obtained goods directly from the countryside and so by-passing the towns, but with the caveat that this would have necessitated a lot of organisation. If the continued use of pre-Roman exchange networks is taken into account, then non-centralised marketing of goods can be more confidently argued. Notwithstanding this view, the 'weighting' of the data by the Roman road network is significant, particularly where the apparent arterial arrangement of the

[330] *'Descriptio Nobilissimi Civitatis Londoniae'* in the preface to William FitzStephen's biography of Thomas Becket.
[331] This characteristic however makes the defensive structures of many small towns even more problematic (Esmonde Cleary 1987).

roads (e.g. Ermine Street and Stane Street) around the central hub of *Londinium* seems to stand out.

The location of the case study towns on the major road network (assumed to be) constructed by the Roman military post-AD 43 has long been thought to support the presumption of market centre function. Where maps and literature have asserted a bond between town site and road junctions (e.g. Millett 1990, 143; Burnham and Wacher 1990, 2), the findings of this research suggest this was not a predeterminate of market function. The Romans did not build roads for commercial purposes but as a method of permanent infiltration of new territory in order to monitor and tax the population, control the extraction of resources and the swift communication of information to and from the central state. As far as possible roads were directed through inhabited areas to promote safer passage for travellers. Once built the roads needed maintenance, such as repairing hard core, weed removal and monitoring water damage (Black 1995) and therefore employment may have been offered to settlers in exchange for land, money, or tax concessions.

None of the case study towns developed on a certain earlier LIA site, although Braughing and Dorchester-on-Thames had pre-Roman settlements close-by (Gatesbury and Dyke Hills respectively), but all hinterlands have been shown to have established rural sites at this time (Chapter 11). It might reasonably be argued then that the dispersed pre-Roman population of Britain (farmsteads, oppidum?, small settlements and transient communities) responded to the 'pull' factor of the roads to some extent. Settlers, possibly dispossessed of their homes by the Roman elite appropriating land, may have been drawn to newly cleared flat land with local building material, drainage ditches and access to water; Roman authorities would have had the benefit of a taxable population in plain sight. Skilled in farming the local area, in domestic crafts and metalworking on a small scale, small towns would have been self-reliant without recourse to functioning as market centres. These communities would also have had the wherewithal to supply donkeys, mules and carts to road users, and exchange goods and services with travellers as opportunity arose (Willis 2007, 163). The impetus to construct official Roman buildings, implement a grid street pattern or grow exponentially in size was manifestly lacking.

In contrast to the roads, the use of rivers and coastal routes offered a cheaper alternative for the transportation of goods[332]. Curiously, despite allowances for changes in the British coastline in the last 2000 years, as Rippon has pointed out (2008, 89), few small towns have been identified in positions which might have favoured coastal trading (*q.v.* Burnham and Wacher 1990). However, all of the five case study towns in this present research were sited on tributaries of the Thames River and in a good riverine location to take advantage of any water transport supplying *Londinium*. This reasoning can be found in the study of the distribution of Oxfordshire pottery (Fulford and Hodder 1974) which concluded that the Thames played an important role in this process. Evidence of structures such as quays may simply not have survived flooding and erosion events[333] over the intervening centuries and thereby lost to the archaeological record, as apparently may have happened at Staines-upon-Thames (Jones 2010). Despite anticipation, close review of the data in this present study revealed very little archaeological evidence of any of the small towns being involved with river trading which might be recognised through features such as quays or finds clearly indicating transportation by river. It may be reasoned that small towns and rural sites obtained some goods transported via the river system, but that the towns did not act as redistribution centres (Rippon 2008). This present study has been able to contribute little to debate over trade and transport based on the Thames river system, and this remains an intriguing yet elusive possibility needing further research.

16.2.3 'Romanisation' and the idea of small town markets

The on-and-off debate about the extent to which Britain should be considered 'Romanised' (Millett 1990; 2014) has not been central to this present study, but has impacted on the conceptualisation of the project. Generally, a 'Roman' influence has been sought in all things with far less consideration given to 'the indigenous contribution to the archaeology of the province' (Hingley 1989, 1). This has been manifest in the traditional dichotomy of small towns deemed 'Roman' and much of the countryside 'native' (Todd 1991). Inevitably this has produced a body of material on small towns explicated as 'Roman'; an unknown amount of native input and expression may have been overlooked. Russell and Laycock have argued that ultimately Roman ways were not at all widely adopted in Britain

[332] The ORBIS website allows price comparison between land and water for a variety of goods over different routes: the Stanford Geospatial Network Model of the Roman World at http://orbis.stanford.edu/ [Accessed 30.04.2018]

[333] There is structural evidence for river trading at Hertford on the Lea tributary 10 km to the south of Roman Braughing.

(2011). The findings of this study however attest to a middle ground where small town residents adopted Roman introductions to the landscape and the economy as they chose.

Strabo's near contemporary account of the range of products exported from Britain to the Roman Empire (Strabo *Geography* 4.5.1) has perhaps contributed to an exaggerated significance of the economic potential of Britain. In comparison to the detailed descriptions of agricultural products and natural resources exploited by Rome in other provinces, such as Turdetania (Iberia) for example (Strabo *Geography* 3.2.5-6), those of Britain are merely listed. Certainly, Rome was interested in securing access to valuable raw materials and agricultural products in Britain, as well as cutting off, at the time of Julius Caesar's invasions, potential supplies of food and men to hostile tribes in Gaul. However, on the edge of the Roman Empire, it would seem unlikely that the Roman authorities would want to make a long-term investment in fully 'Romanising' the province; commitment to extensive building programmes and a heavy military presence would have been expensive in return for what Mattingly sees as a guaranteed modest import/export market and tax revenue base (2006, 491-528) although he may be under-estimating the value of Britain (Willis *pers. comm.*). Rome did invest in Britain and Britain paid its dues as a province of the Empire (Mattingly 2006; 2011), but the development of small towns does not appear to have been the result of 'top down' organisation, but rather as Hingley (1989) has envisaged 'natural towns': an expression of the local population. Thus, it can be reasonably argued that Roman investment in small towns as a network of market centres as part of a 'Romanised' provincial economy, is less likely than the development of these settlements as an indigenous response to Roman authority (Millett 1995, 33) and changes in the landscape.

16.2.4 Geographical tradition and ideas about Roman small towns

The influence of geographical ideas on archaeological interpretation has been demonstrated in the literature review and theoretical background chapters. They have been shown to have been instrumental in the application of spatial distribution models to small towns and regression analysis to pottery distribution (Hodder and Hassall 1971) and of significance in the evolution of the views held in the 1990s (Burnham and Wacher 1990; Millett 1990; Brown 1995). Provisionally ranked in a settlement hierarchy model between large towns and the levels of rural settlements, evidence for a vertical economic relationship between small towns and adjacent settlement groups is not apparent from the data review.

Small towns have traditionally been modelled as hubs central to hinterlands; a single polygon in a tessellated landscape much along the lines of the application of Thiessen polygon analysis to IA hillforts in southern Britain (cf. Jesson and Hill 1971). The interpretation of earlier IA hillforts through such models from the mid-1960s as central places for production and redistribution (although now rejected) set a precedent for understanding small towns. This occurred despite the earlier review of the gains and limitations of modelling CPT with patchy archaeological data conducted by Evans and Gould (1982), who concluded that qualitative approaches offered greater potential.

Models have shaped the idea of small towns as market centres, but do not adequately reflect the breadth of archaeological data available. Data sets have largely been utilised isolated from the archaeological context of the finds material and thus vulnerable to manipulation (cf. Morris 1997). Moreover, the lack of extensive data on minor routes, raw materials and industry has hindered any attempt at cost-distance analysis which might elucidate commercial activity within the hinterlands of the towns. However, the potential of more refined applications made possible by the use of GIS may benefit future attempts at modelling.

This present research argues that the traditional concept of a small town market centre is weakly supported by modelling or empirical evidence and has in fact proved elusive when sought in other historical periods and geographical regions. This is not to say that the application of geographical themes and approaches is without merit, only that a wider raft of ideas should be considered in endeavouring to understand the role of small towns in Roman Britain.

16.3 Second Objective – evidence based interpretation of small town economy

16.3.1 Urban morphology

The concept of ‘urban morphology’ has been used judiciously in this present study in light of traditional discussion on small towns qualifying as ‘towns’; use of the term ‘urban’ may not be considered appropriate by all scholars. Early debate (Brown 1995, 3) over a more natural origin for these settlements versus a top-down Roman determined foundation has continued, the former is believed here to best fit the five case study towns. In keeping with the findings here, the most satisfactory compromise must be to accept that these small

towns were a native response to changes under the Roman Empire and perhaps best understood, as Mattingly has argued (2006, 286-91), as exhibiting a different type of urbanism to that traditionally applied to large towns in Roman Britain and the *vici* (small towns) of northern Gaul.

The potential of archaeological features identified in the morphology of the case study small towns for demonstrating commercial activity has been explored in Chapter 10: the findings of the data review showed that there was in fact little archaeological evidence which could be brought to bear in support of a market centre function. In the past this claim has largely rested on the interpretation of Early Roman period strip buildings as shops in the mode of the buildings in Pompeii and Herculanium with their well-preserved counters and store rooms. The corresponding interpretation of open frontages and commercial use of internal space in the small town examples is tentative at best, although their main road locations leans towards engagement with passing trade over local community focus. Later evidence is weaker with Mid-/Late Roman period roadside buildings being more readily interpreted for domestic use. The emphasis on activity along the roads has been shown in the data review to result from bias in archaeological attention towards sites associated with Roman roads. By contrast the seemingly organic development of angled spur roads evident in the internal layout of the small towns (cf. Irchester, Chesterton-on-Fosse (Burnham and Wacher 1990)) suggests the regular interaction between the town residents and the outskirts of the settlement, if not specific destinations in the surrounding countryside. The trajectory of side roads at Roman Neatham and Stane Street, south of Braughing, extend to towards the local pottery industries, although these routes were not necessarily used to transport pottery goods.

Exploration of other urban features has not supported market centre roles. The data review found no convincing evidence for storage buildings for food stuffs or pottery within any of the towns, nor for granaries or aisled buildings, although other forms of storage such as dry rafters, attics, large baskets or jars may have been alternatively used in domestic contexts. The apparently open areas identified within the towns at Braughing, Dorchester-on-Thames and Neatham as potentially market areas have, on further consideration, thought not to be suitably large enough for this purpose.

16.3.2 Town and countryside

Of special note is that none of the hinterlands included demonstrably large villa estates only, rarely, small villas such as at Mentley (Roman Braughing) and those mooted to the south of Roman Neatham. This was unexpected as villa estates have traditionally been associated with towns (Millett 1995, 31). If villa estates were responsible for producing and collecting agricultural surplus to satisfactorily supply the Roman authorities, then this activity may not have been required of small towns.

Review of the literature provides little insight into the relationship of small towns with the countryside[334] (Briggs *et al.* 1986; Todd 1970, 1991; Condron 1996). Review of the data for site activity for the length of the Roman period in Britain (Chapter 11), comparing the small towns and rural hinterlands, suggests that they did not influence each other nor were subject to the same growth/decline determinants. The construction of major roads did not attract new rural development. During periods of town expansion there were no corresponding increases in the numbers of rural sites which might indicate tied urban-rural trade. Mid-/Late Roman Dorchester-on-Thames, Late Roman Ewell and Mid-/Late Roman Neatham flourished at a time of apparently very little dynamic rural activity. During the Late Roman period Braughing declined despite the active pottery industry close by at Much Hadham, unlike at Late Roman Neatham where both the town and the pottery area of Alice Holt flourished. Any tenuous links however may be illusory, affected by bias in the distribution of site excavations where previous archaeological interest is known or accumulated data has been facilitated by modern development.

Local trackway infrastructure, potentially connecting towns to rural sites, is poorly attested by the data in all five case study areas. Only very small networks of trackways have been mapped, for example to the west of Dorchester-on-Thames, and there is not enough evidence to suppose that the towns were necessarily connected to the countryside in this way.

16.3.3 Agriculture and food processing

There was, seemingly, substantive continuity from IA agricultural productivity into the Roman period in Britain, although new Roman methods of farming (e.g. more efficient

[334] The findings of the RRSP have been evaluated in terms of distinctive regions such as the South-East and the East Midlands (Allen 2014), but as few small towns are included in the project, the town-country relationship is not specifically explored.

ploughshares and the introduction of corn driers) accompanied a trend towards more intensively farmed land occurred. It is thought that this development was the result of Roman state taxation and levies on agricultural produce to feed the army (Millett 1990), but may also reflect a rise in commercial demand. New demand may have encouraged roadside settlements (Fulford 2017b, xvii) and, by extension, small towns, as part of an official food distribution network but this is only one possible causal factor. Notwithstanding the question of increased production, the findings of the data reviewed for this present study points to a mixture of livestock and arable farming practices essentially determined by the advantages and limitations of the natural landscape.

In fact, a strong implication in the findings is that small town residents made full use of the local terrain and natural resources, particularly exploiting the agricultural potential of waterlogged marshy land. (This is a trait which has been pinpointed by Willis (2007, 158) in relation to large towns, but not fully explored.) Marshy terrain bordered all the small town case study sites to some extent, limiting the physical growth of the settlement but providing fertile soil close by for agriculture: arable and pastoral. As with roadside settlements (Smith 1987), food production appears to have been the main economic concern of small town residents (Millett 1991; 1995).

16.3.3.1 Livestock farming

The context and profile of individual animal bone assemblages has necessarily been shaped by a number of factors. These include local site acidity/alkalinity of the soil and the presence of waterlogged conditions, gnawing by dogs, the method of collection (hand or floatation tank) and the zooarchaeological expertise in identifying and recording the material. Review of the data for this study was dominated by cattle remains, which were commonly retrieved from rural sites. Cattle provided milk and, when slaughtered, the highest meat yield and largest hides for leather working, plus oils, grease and glues from rendered bone and hooves together with horn for decorative working. Sheep were also commonly kept for several years before slaughter, providing milk and wool which was woven for clothes and blankets. Findings relating to bone age data (discussion Chapter 12) supports animal husbandry close to the town and, for domestic pigs, utilised open spaces within the residential areas.

Domestic animal bone assemblage data essentially records food waste from local consumption, whether butchered on a household or shop basis, raised locally or imported.

Recorded assemblages varied a great deal in size and animal species/body part composition. Those comprising identical bones, such as the cattle scapulae at Roman Dorchester-on-Thames, were mooted in the literature as evidence of butcher's waste (some had been pierced for hanging) or thought to signify wholesale processing (such as salting for preservation). However, assemblages with this profile could represent decades of deposition (unclear from the data), and it is unlikely that the meat from these bones was large enough to represent a redistribution industry and was likely consumed locally. The source of the animals is unknown. The bone assemblages may alternatively represent the practical disposal of bones which were not preferred for bone working (usually cattle cannon bones[335]) or utilised for other domestic or craft purposes.

Although not a focus of the present study, but connected to agriculture, evidence for domestic weaving (stone or ceramic loom weights) was not observed in the source material as commonly as might be expected, although these artefacts might be overlooked in excavations or have been reused for other purposes. Tanning and leatherworking was poorly represented, apart from the leather off-cuts preserved at Staines-upon-Thames. The manufacture of shoes and other leather apparel must have occurred on a domestic or craft level as there is no industrial scale evidence for the accoutrements of tanning or leather working. Frugal evidence may be simply the result of leatherwork only surviving in rare waterlogged deposits and tanning vats being reused, dismantled or not recognised in older archaeological interventions.

The data review has demonstrated that the ratio of cattle:sheep/goat bones at the small town sites conforms to the traditional profile of a nucleated site of the Roman period (Chapter 12). The low proportion of pig remains found shifts this profile towards that expected of agricultural settlements. The location of each of the five towns with access to suitable pastoral land is therefore an important counterweight to road location. Cattle grazing would have been sustainable on most different types of terrain, but sheep/goats are traditionally managed on extended areas of downland (Neatham and Ewell particularly). Horse bone data did not seem to reflect the extensive use of horses for work or food, although heads were recorded occasionally as 'ritual' closure deposits. This dearth may point to the management of wild horses in the countryside.

[335] It should be noted, to the contrary, that cattle scapulae bones were used for bone working in the Early Medieval period https://halldorviking.files.wordpress.com/2013/08/working-with-bone-antler-and-horn-david-constantine-1-4.pdf [Accessed 15.06.2018]

On the scale of the present data, the domestic bone assemblages cannot be argued to represent livestock husbandry geared to supplying meat or by-products to the large consumer centres of *Londinium* and Southwark. It has not been possible to distinguish any patterns based on the proportion of animals from rural sites consumed in the small town compared to those raised by the urban community; certainly it is not apparent that the towns acted as market centres for meat collection and distribution. Consumers in London were more likely supplied with fresh meat from distribution points closer to the city.

16.3.3.2 Cereal production

It is important to state that almost none of the cereal assemblage data represented material recovered from domestic contexts or threshing floors but comprised that which had been discarded or lost often in pits or ditches. A little charred material was recovered from corn driers. Spelt wheat, and to a lesser extent barley, dominated the assemblages across the Roman period. This may be due to a greater resistance to decay of this type of grain, compared to emmer or bread wheat and where the grains were found. It may also signify that these traditional and widely grown grains of the IA (Mills 2006, 27; Van der Veen and Jones 2006) continued to be popular in small towns and rural sites during the Roman period. Moreover, the results appear consistent with those described for the East Midlands area (Taylor 2006), which suggests regional similarities across major areas of Britain. Only the Central Trading Estate excavation (Staines-upon-Thames) recorded bread wheat throughout the Roman period, perhaps indicating unique site conditions. Prolonged survival of grains is generally represented by charred grain samples from rural corn driers and malted (water soaked, then heated) barley grains; thus to a greater extent the data says more about what has survived in the archaeological record than what was consumed. As such these findings cannot testify to how different grains were consumed. Spelt and barley may have been combined to make bread or processed singly to make porridge or used to brew ale.

The findings of this study are open to the interpretation that a mix of crops could have been grown together (*q.v.* Boyd no date), rather than in single crop fields, or that crop rotation was practised. Planting and harvesting of cereal and other crops such as beans in close proximity would have made efficient use of small areas of fertile land, particularly

within or on the periphery of built up land (Willis 2007, 153)[336]. More research might be done to this end, through detailed survey and the use of flotation analysis on soil samples taken from such contexts. Finds of large numbers, of as yet unstudied, agricultural tools from *Londinium* hint that urban open spaces were widely used at least for market gardening (Holbrook 2017).

Grain was produced and traded on a large scale in IA Britain (Van der Veen and Jones 2006), but the demand for grain in the new Roman centre of *Londinium* was apparently met to some extent at least by the supplies of imported grain entering the port from the Continent. Carbonized grain samples excavated from the City of London[337] attested to mixed cereal (spelt, emmer, bread wheat, barley and rye) and a broad range of incorporated non-native weed seeds. As a trade centre at the time of the Boudiccan fires of AD 60 London was importing grain from southern or eastern Europe (Boyd, no date, 32). During this same period however, samples retrieved from Colchester attest to similarly mixed cereal grains but with native weed seeds, indicating a British source. Trade, probably military, in imported grain from southern Europe has also been supported by analysis of foreign grain pests evident in Early Roman samples from sites in London and York. Imported grain pests have not been found at contemporary rural sites, including across the Thames Valley (Smith and Kenward 2011, 256) or in earlier IA grain (Smith and Kenward, 2011, 253). This apparent separation between grain supplies to military and large Roman centres in Britain, and rural sites and small towns, suggests that it is less likely that the case study small towns were involved in the distribution of grain to large settlements.

The lack of evidence in this study for urban corn driers indicates that if this intervention was customary, this was carried out away from the towns, or in situ in the fields where the grain was harvested. Natural drying methods such as corn stacks may have been used effectively in southern Britain for grain harvests produced by town residents; this practice would not have left any archaeological evidence. Beyond the towns, the evidence for rural corn driers in any of the five hinterland areas is scarce (Chapter 10.5: Table 4 and Table 10) and predominantly relates to activity in the Late Roman period; this accords with previous studies (Van der Veen 1989, 302; Allen 2013). The reason for the increased use

[336] Willis refers here to Roman Canterbury and Colchester, where the 1985 excavations at Culver Street yielded evidence of a probable corn drier and a granary tower, as well as farming/market gardening within the urban space confined by the town walls (mid-/late Roman period).
[337] Excavation at the corner of the Roman Forum at 162 Fenchurch Street and 23 Lime street (1976).

of corn driers over the Roman period befits the view that there was a general increase in farming intensity as a result of increased demand by the Roman state (Allen 2013). To what extent this increase was met by new Roman practices, such as the use of corn driers, and how much by the increased use of existing LIA farming practices (Jones 1981), remains debateable. A comprehensive study of corn driers and their archaeological contexts in Roman Britain is much needed and would provide a valuable reference for studies such as the present one.

Quernstone finds in Britain have been the subject of fairly recent systematic research (Peacock 1987; Shaffrey 2003, 2006; Green 2011, 2014, 2016; Williams and Peacock 2011) and have provided background information for this present study. These studies describe the geographical spread of quernstone finds, but little has been deduced about the distribution mechanisms and marketing of the different stone types. Although the use of quernstones for grinding grain is thought to have been common in Roman Britain, usually at the point of consumption, no evidence has been found from any of the case study towns for storage or marketing of these goods, even at Braughing which was located very close to a HPS quarry. Lack of evidence for centralised marketing, allows for individual quernstones obtained, when needed, through personal contacts. Exchange at this level may also account for the greater variety of quernstones found on rural sites, where long-established trading networks endured in the rural culture. Finds of quernstone fragments at the small town sites appear to represent the stone types most easily obtainable at the time (e.g. imported Mayen lava querns at Ewell). Differences in the grinding effectiveness of the different stone types likely reflected the cost to the consumer, or difference in usage such as for grinding non-food stuffs. The paucity of data, particularly at the town sites, is likely to have been exacerbated by the convenience of incorporating quern fragments into new constructions or for building repairs at a later date[338].

16.3.4 Pottery discussion

Current knowledge of pottery distribution in Roman Britain is largely derived from comparisons of excavated sites with the 'best' data, that is the largest and most comprehensively documented assemblages (e.g. Fulford and Hodder 1974; Booth 1991, 2012). Quantitative analysis of the percentages of the different types of pottery within

[338] Worn quernstones have been commonly appropriated as door steps and hard standing.

these assemblages[339] has been interpreted with reference to modern geographical approaches and later known medieval practices (Hodder 1974, 354); the results extrapolated to identify patterns. This conceptualisation has assumed the role of small towns as market centres (e.g. Esmonde Cleary 1989) in disseminating pottery to large centres and rural sites. This present study has not found evidence of this in the data.

Chapter 15 has highlighted a number of challenges to the interpretation of the pottery data (Fulford 2017a, 281-2; Willis 2018, Section 5). These challenges have been largely due to the older nature of many of the site reports used, since pottery reporting has vastly improved in recent decades. Lack of consistency between these older reports in recording assemblages was therefore to be expected: grouped sherds from the same source were inconsistently recorded by weight, number of sherds, estimated maximum number of vessels or vessel equivalents (EVEs), percentage of assemblage or a combination of any/all of these (*q.v.* Orton 2015). Converting one convention to another was not generally feasible making cross-site assemblage comparisons very difficult. Details were variable and better known types of pottery tended to dominate the records, whilst coarse or grey wares were often only noted in passing. Skewing of the data might be tied to the presumed social/economic status of the excavation site. The Mid-Roman period was generally poorly represented, perhaps due to material being assigned to an earlier or later period for simplification in the reports, or because pottery types did not change distinctively between the artificial Roman periods commonly applied. Nevertheless, in synthesising the large amount of data collected for this research, care has been taken to maintain key aspects of context, such as relationships with different materials, chronological or locational features. The findings of this research suggest certain key interpretations are justified.

During the Early Roman period the small towns and their respective hinterland rural sites obtained pottery from a roughly similar range of sources. This is likely the result of the new towns attracting settlers from a similar (local) background, thereby maintaining established (LIA) socio-economic ties via existing routes across the landscape. Pottery distribution in the Mid-Roman period indicates either little change from the Early period (e.g. Roman Braughing) or a growing reliance on regional supplies (e.g. Roman Ewell) although the data is chronologically indistinct, as already noted. The substantial lack of samian ware on rural sites, even possible villa sites, near Roman Neatham demonstrates

[339] Traditionally attention has focussed on fine ware (such as samian from Gaulish sources) and the most distinctive British pottery types and forms (such as Oxford white ware mortaria).

that this fine ware was not being marketed centrally from the small town. By the Late Roman period there seems to have been a greater distinction between the number of pottery sources available to town and rural sites: Roman Neatham and Staines-upon-Thames had increased numbers in comparison to local sites, although the reverse was true for Roman Braughing. This divergence would seem to reflect differences in exchange patterns, but not point to organised central marketing.

In line with Fulford and Hodder's (1974, 32) application of regression analysis to late Roman Oxford and New Forest fine ware distribution, small towns in this present study do not appear to have exerted a greater pull on pottery supply than local rural sites. This suggests a similar level of access, if not similar economic status[340]. Fulford and Hodder's conclusion that pottery remains on rural sites were not sourced from as far as those obtained in their small towns is reflected in the findings of this present study, where this is explained by incidental urban access to pottery passing along the roads. In the case of Roman Neatham for example, rural sites close (within around 3km) to roads displayed pottery from similar origins. Although pottery forms were not especially focussed on for this study, it was noted that where Roman Dorchester-on-Thames and local rural sites obtained pottery from the same sources, the range of pottery forms was different, although this may be accounted for in terms of different sample sizes. The explanation for this is likely due in part to different site activity and in part to perceived site status during archaeological intervention and reporting. It is argued here that coarse and fine wares both appear to have been obtained according to want, most likely through established contacts and opportunistically from road travellers, rather than from small town market centres. Something of this system is evident in the letters of the Vindolanda tablets which record occupants of the military site 'purchasing' goods (with earned coins?) through direct application to an agent (personal contact or relative) who is able to source what is needed. Barter may have been common at civilian sites although monetary exchange has been mooted for small towns (Brindle 2017, 277). In fact there is much uncertainty surrounding the use of coins in Roman Britain (Guest 2018) and a coin scatter alone in the archaeological record cannot confidently be interpreted as a site of commercial activity.

This present study represents a counter perspective to that predominant in the literature: distribution as seen from the final destination of pottery from the various sources available

[340] There is a difficulty with the application of 'status' here in the circular logic of pottery data discussed in relation to settlement status, where 'status' is at least partly based on the nature of the pottery finds.

to the residents of the case study towns and hinterland sites. As such, the findings make an original contribution in that, contra to the literature, small towns were not apparently a consumer destination nor a centre for the collection and redistribution of pottery. This is of particular significance where large pottery industries developed relatively close to a small town: the Oxfordshire kilns near Dorchester-on-Thames, the Much Hadham kilns near Braughing, the Alice Holt kilns near Neatham. The proximity of a small town to a pottery industry has arguably led to disproportionate attention given to local pottery on the excavation and field walking sites. However, evaluation of the pottery assemblages combined with a lack of urban storage buildings or discernible supply infrastructure suggests that at present there is no evidence that these small towns were involved in marketing pottery. Further research might focus on direct selling by potters or *negotiatores* or local land owners (villa estates), although only the Alice Holt area has evidence of any (small) villas.

16.4 Systematic review – evaluation of the strengths and weaknesses of the approach

The original contribution of the findings of this present study was achieved through the application of a systematic review to the quantative and qualitative data derived from archaeological features and finds evidence. The review has focussed on agricultural production and the processing thereof, and the distribution of quernstones and pottery chosen as indicators of the economic basis of the case studies within the Thames Valley region. Small industry and crafts, such as metalworking, have not been included, unless directly connected to a market centre claim, due to little evidence and so limited potential for appraising small town economies. It was originally intended that oyster shell dumps (Sommerville 1997; Hind 2003; Cool 2006; Allen 2017) be included as potential indicators of trade routes and marketing, but this initiative had to be discarded due to the limited time available for this research.

The systematic review proved a most effective method of synthesising and assessing a large and inclusive amount of disparate data; data was only rejected where the author judged that it held no value, positive or negative, for the focus of the thesis. This approach demanded a thorough search of the variously formatted literature available and collection of the data. As anticipated, the quality and volume of data was variable and inevitably restricted straightforward synthesis and comparisons. The first key concern was to maintain archaeological context information; the second to note any apparent bias in the source material. These concerns were met through the construction of tables of

archaeological interventions and dedicated case study literature reviews (Section 2). Attention to context was also key to each of the chapters in Section 3 where the background and formation of current ideas in specialist fields informed interpretation of the data. The strength of the systematic review in this research is evident in the thorough evaluation of the data. Value has been added by not hiding weaknesses resulting from the absence of data or poor quality data. In meeting the first objective of the thesis, lack of data has been fundamental to the argument against a market centre role for the small towns.

16.4.1 The data – evaluation

The findings of the systematic review have been necessarily limited by the variations in quality and the 'patchy' nature of the data collected. Although this has contributed to affirmation of the first thesis object, this has posed a challenge in identifying traits or trends sought in meeting the second objective. Data was recorded and organised in a number of independent themed spreadsheets, meaning that key contextual data had to be repeated. This method was cumbersome and entailed extra work to ensure that finds and contexts were reconciled. With hindsight it might have been more efficient to have constructed a database (e.g. Microsoft Access) which would then have allowed for simple cross-referencing of data. Nonetheless, using spreadsheets had the advantage of data representation that was straightforward to synthesise, represent graphically and convert to transferable formats (csv files) compatible with GIS mapping.

In order to trace development over the whole Roman period in Britain (AD 43 – 410) and compare one case study with another, artificial time periods were applied to the data collected. This is common practice in archaeology although there is no consensus of appropriate dates in the literature. The intervals constructed by the author for use in this study[341] have necessitated the manipulation of data in some instances which may have affected the findings, if only a little. Use of contrived historical periods in this way tends to create an identity for each period, encourage differences and emphasise a Roman rather than native character. It may be that difficulties in identifying finds and activity in the Mid-Roman period is a product of this artificial framework, rather than a true reflection of the period. Lastly, there is a danger in over-synthesising data, refined to a point where summary statements are far removed from context and individuality. Effort has been made

[341] LIA or pre-Roman equating to an unspecified period immediately before the Roman Conquest; Early Roman (AD43-150); Mid-Roman (AD150-250); Late Roman (AD250-410).

in this study to avoid this pitfall, even though this has meant fewer decisive findings can be claimed.

16.4.2 Evaluation of the use of case studies

The research strategy of using case studies has been successful here in explaining the conventional wisdom that small towns acted as market centres. These particular case studies were chosen as they were in peripheral locations (supply points?) to *Londinium* and in central locations to supposed agricultural and industrial hinterlands. The justification for including Dorchester-on-Thames and Neatham, within the Thames Valley but at a greater distance from London, is that it might be argued that, given its size and imperial and economic functions, Roman London acted as an exceptional magnet as a market centre for small satellite towns within a substantial catchment area (Willis *pers. comm.* 2016). So, although region specific, the findings of this research have the potential to be transferable to understanding other small towns in Roman Britain with similarly defining characteristics located near large *civitas* centres. In contrast to the new settlement at London, *civitas* centres with pre-Roman origins (e.g. Silchester) may have had retained socio-economic links with local rural sites and small town settlements, thereby determining supply chains different to those of newly founded Roman London. Issues with the quality of the data available however are likely to be the same as those encountered in this present study.

It was not anticipated at the start of this study that one traditionally dominant feature of perception of Roman Britain should quickly fade into the background: the major Roman road system. It would seem that the road system has had disproportionate influence on efforts to understand Roman Britain simply because of the physicality of the remains, the large amount of archaeological attention they have received over the decades, authority given by maps, and in offering a ready-made framework to making sense of the province as organised and 'centralised' for economy and taxation (Millett 1990, 148). As no contemporary seals, Procurator stamps or inscriptions have been found to indicate the civilian use of roads or relationship of this infrastructure to *Londinium,* the road system has contributed little to the findings of this thesis.

16.5 Interpretation

Whilst technological progress in terms of new survey tools (drones/software like LIDAR/ground-penetrating radar/ GIS), analytical science such as bone isotope analysis,

electron microscopes for stone and ceramic analysis, and specialist software, has contributed to accurate and workable data sets, it is the interpretation of the findings and the analogies brought to bear which make a meaningful contribution to knowledge. In meeting the first objective, the analogies supporting claims for small town market centre status have been shown to be unjustified. Past interpretation has relied heavily on 'borrowing' from later historical periods, portraying small town market centres in Roman Britain as the forerunners of later, particularly medieval (Hingley 1989; Brown 1995), town economies. Attempts at drawing on examples of features from the Continent has also not been helpful: Britain was not Gaul (see Fulford's comments 2017b, 358-362), remains of shops in Herculaneum should not be taken as templates for shops in Britain. To avoid distortion, interpretation of data needs to be offered clearly in its archaeological context and the means of interpretation made explicit.

16.6 Future research

This present research has demonstrated that gains can be made by looking at associated groups of finds with their archaeological contexts, as an alternative to focussing on single types of finds devoid of context. Context unfortunately can be unintentionally lost due to long periods of time elapsing between excavations, data being tabulated or written up, and eventually becoming available for research (e.g. Church Meadow site at Ewell). In this present research a close link has been maintained throughout the data analysis with the historical contexts in which the original data was produced: the biases, favoured themes and the evolution of ideas about small towns has honed the findings. This is concordant with the current idea that finds should be analysed more closely with contexts. Several logical paths might be taken by future research:

- Greater use of environmental sampling for contexts, such as open spaces in towns, to discover more about urban land use, particularly for raising animals and market gardening
- Focussed study on the significance of water-logged natural environments in settlement location
- Landscape surveys designed to identify more local trackways in use during the Roman period, perhaps through the application of map regression or field walking
- Use of GPR[342] to survey and map areas of small towns where older archaeology might be found under more modern features

[342] Ground Penetrating Radar

- Further consideration of villa estates in the role of production/collection/distribution centres in the stead of small towns
- Further investigation into the source of meat consumed in Roman London and other large centres using bone/teeth isotope analysis
- Comprehensive survey of corn driers to note building contexts and placement in the agricultural landscape
- Continued work on the role of coins in the exchange of goods
- The extent of coastal and river trade in the Roman period (e.g. Rippon 2008), given earlier Bronze and Iron Age precedents and the later use of boats such as schooners and luggers around the coast of Britain

Ultimately, a greater understanding needs to be reached in regard to the social and economic frameworks governing life in Roman Britain (the context) into which the various strains of research into features and finds may be seated before a cohesive picture can be established. One direction for future research which might be fruitful is investigating the possibility that part of the rural community did not occupy permanent settlements, but moved seasonally around the landscape, engaging with fixed points such animal enclosures and religious sites, and exchanging goods at will.

The findings of this present study suggest that small towns in Roman Britain represented a conflation of the responses of indigenous peoples to the opportunities and limitations of life under Roman rule. Native skills imbued the small towns with an agricultural character, distinct from the 'Roman' form and function of large towns and those in Gaul (which had experienced many decades of formative Roman rule before the Conquest of Britain). Conclusions drawn from the discussion here are presented in the next and final chapter.

Conclusion

17.1 Conclusion

On the basis of the findings and the preceding discussion, several conclusions can be reasonably drawn. The initial conclusions are derived specifically from the data reviewed and the remainder are concerned with the method and theoretical background which have been applied: together they constitute an original contribution to knowledge in this field.

From the data reviews and the results of unpicking previous interpretation and rethinking the evidence, it has been clearly demonstrated that the small towns investigated here did not act as market centres in any traditional sense. In broadening the scope of the investigation to assess the data available for excavated features and finds relating to basic goods (e.g. animal products and grain), an alternative characterisation of these settlements has been reached. The conclusion reached is that these small towns were sufficiently independent to survive without being bound in to a centralised economic network.

The systematic reviews of the data for the case study small towns and local rural sites combined to form an extensive remit in types of evidence scrutinized. This breadth is justified on the basis that it has enabled concordance between the findings, strengthened the arguments embodied in the two thesis objectives and enabled sound conclusions to be reached; a narrower selection could not have achieved this. It may be however, that evidence derived from other research foci, such as personal adornment or metal artefacts, may support or undermine the interpretations reached here.

It has been concluded that Braughing, Dorchester-on-Thames, Ewell, Neatham and Staines-upon-Thames did not act as market centres during the Roman period, in any way consistent with contemporary Continental, later medieval or modern stereotypes. The urban morphology belies the physicality of a market centre in terms of the features, such as shops or market areas, which might be expected. The few defined open spaces could be dismissed as too small to be market places and buildings suitable for storage or large-scale processing of agricultural products were absent. Potentially open-fronted roadside strip buildings provided no internal evidence (e.g. counters, although these may not have survived) of use as shops, and evidence for workshop activity, although not a focus of this study, was apparently at a level adequate to meet the casual needs of travellers but not sufficient to be described as an industrial zone.

Significantly, this study has shown that there is no evidence that the small towns were involved in the distribution of pottery from local manufacturing industries, this applies to Roman Neatham and Alice Holt/Farnham potteries; Dorchester-on-Thames and the Oxfordshire potteries; Braughing and the Much Hadham potteries. Vessels produced by these industries are common finds in assemblages recovered in *Londinium* (Davies *et al.* 1994; Bird *et al.* 1996; Hill and Rowsome 2011; Dunwoodie *et al*. 2015) and Southwark (Drummond-Murray *et al*. 2002; Cowan 2009, Shepherd *et al.* 2015). If not involving the small towns, the key to understanding the organisation of the marketing and distribution of vessels from these kilns must lie elsewhere. The lack of overt evidence for central marketing (given that evidence may be lost or not yet found), favours the conclusion that goods were traded (as surplus possessions) in and around the small towns through a diffuse system of exchange and distribution which required (and left) little infrastructure.

Pottery and quernstones found in the case study towns and in rural sites included those widely sourced from the Continent and different southern regions in Britain; variety across rural sites was often greater than in the town. (Accepting that data derived from some pottery assemblages may have been unintentionally biased towards the most easily identified and better known pottery types.) This variation points to different basic demand/supply mechanisms in operation and the conclusion that the rural sites continued to obtain utility goods via personal (familial and social) contacts whilst the residents of the newly established towns responded to change. Here, the residents probably experienced a weakening of established exchange connections at the same time as opportunistically exploiting passing road trade.

There is little evidence for the relationship, at any time in the Roman period, between the small towns and the rural sites of the 'hinterland' in terms of paths and trackways, although future work may identify more in the landscape. Present evidence however infers that neither were extensively involved in the local distribution of agricultural products. Local production was apparently for local consumption and evidence for the transportation and collection of large surpluses (cereal or meat) for onward distribution to *Londinium*, *civitas* centres, or the Roman army, is lacking.

In terms of grain, it has been concluded from the dominance of spelt grain in the data that either bread wheat was not widely grown or consumed, or that it did not generally survive well in the archaeological record. The fact that no mill sites have been confirmed in the

five towns attests to lack of centralised flour milling and sufficient demand for portable loaves. It is also concluded that bread may not have been the end product, as spelt and barley milled at home could be a basis for porridge or stew cooked over an open domestic hearth; an indication that daily activities centred on the home.

The data for the town livestock bone assemblages conforms to that expected of nucleated settlements of the Roman period (Allen 2014; 2016). Whilst the present findings tend to support a level of animal husbandry suitable to meet the needs of the town residents, any future research detailing the source of animal bones using stable isotope analysis would help to refine the pattern of meat production and consumption for these settlements.

The inference of the combined findings for urban morphology and agriculture, has led to the conclusion that the small town residents farmed the land in, on the edge of, and close to the town, and did not rely on agricultural produce from rural hinterland sites. The attraction of marshland adjacent to the small towns may have been twofold. Not only used for cultivation and grazing, the waterlogged land provided protection, as did the proximity of major roads, thus representing a degree of security to the townspeople from general unrest, particularly in the Early Roman period (Suetonius *Vespasian* IV and Tacitus *Annals* XII 31-39) and perhaps towards the end of the Roman era.

The main conclusion in relation to the conceptual framework of this research is that the belief that small towns in Roman Britain acted as market centres has arisen from aligning the traditional idea of small town market centres, originating in modern settlement study, to the imperative for Rome to feed its citizens and serving legions (and thereby keeping them compliant and supportive of the Emperor). A provincial market centre economy would have necessitated wide-ranging organisation impacting on the productive and authoritative sectors of society, evidence for which is certainly lacking at small town level in this study. In fact the findings have demonstrated that town residents had the skills and resources to feed themselves and that the burden, or commercial opportunity, of producing surplus agricultural produce for export was, it is suggested here, more likely to have been allocated to Roman villa estates.

The five case study towns were chosen as research foci for their peripheral locations around *Londinium,* in accordance with the traditional belief that this positioning likely denoted supply centres (e.g. Orton 1976). Convincing on a map, this is misleading when

compared with the data available. The case study towns were an indigenous response to changes in the landscape, including new infrastructure, but not stimulated by the demands of the new Roman centre at *Londinium*, which were met from the Continent. The nature of these small towns, devoid of a central marketing role, determined that they did not become wealthy, come to be embellished with civic amenities nor develop into larger towns. These conclusions may have implications for research on small towns in regions dominated by Roman founded centres, such as Wroxeter (*Viroconium Cornoviorum*), as opposed to those where the larger centres had local IA roots such as Silchester (*Calleva Atrebatum*), Canterbury (*Durovernum Cantiacorum*) and St. Albans (*Verulamium*). Within the remit of this present study, the extent to which large towns evolved central marketing roles has not been explored.

From the rural perspective of the Roman Rural Settlement Project " the evidence does not support towns having a significant role as markets, but that they certainly depended on and consumed resources from the countryside" (Fulford 2017b, 362)[343]. The conclusions of this present study accord with the first part of this statement, but not the second. Whilst some developer-led data is common to both studies, the additional data used in this present study has contributed to the conclusion that the five case study small towns were self-sustaining: groups of producers/consumers to an extent muted features in a wider structured economy. From a different perspective, the written tablet evidence from Vindolanda[344] and from the Bloomsberg site in London (Tomlin 2017), also offers support for the idea that much of the trading in Roman Britain was conducted via personal contact networks and not through market centres.

This research has demonstrated the challenge of working with a theoretical background of value-laden cultural definitions which double as artificial time periods: Roman, IA, LIA; Early, Mid- and Late Roman. Although practical in terms of organising data and communicating ideas, these terms bring with them expectations which influence the interpretation of archaeological material and detract from objective observations.

Traditionally, archaeology has looked for evidence to support the expected interpretation of small towns as market centres; evidence which did not fit, or was tellingly absent, has

[343] It should be noted that at least one contributor, Rippon, in this volume voices the contrary opinion (*ibid*, 351) that "there is no question that towns and smaller 'local centres' […..] through their role as market places".
[344] http://vindolanda.csad.ox.ac.uk/

been ignored or attributed an alternative convenient status. Lack of evidence for centralised marketing around these small towns casts doubt on the extent to which this type of economy characterised trade in the province. Instead, a better account of the distribution of finds might be argued on the basis that consumers obtained goods directly from producers; moved around the landscape with possessions and exchanged goods ad hoc with personal contacts or travellers. This present research has demonstrated that more can be gained by an open, inclusive and inductive approach to interpreting the data, and whilst the conclusions are not sharply focussed, they are roundly representative.

Rethinking the archaeological evidence for the five case studies, raises the question of the extent to which the other small towns in Roman Britain can be characterised in a similar way. This study has not determined any formulaic way of approaching the data, but the application of a systematic review has proved a useful method and suitable for other small towns. It is suggested however that a closer investigation of many small towns in their hinterland contexts is needed before any group characterisation is contemplated beyond that of common features of urban morphology.

This research has successfully demonstrated that these settlements were *not* Roman small towns but small towns in Roman Britain: self-supporting agricultural settlements…not market centres.

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