

SOLENT THAMES RESEARCH FRAMEWORK RESOURCE ASSESSMENT THE ROMAN PERIOD

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Introduction

The five English counties, which make up the Solent Thames sub-region, form a distinctive territory, sub-rectangular in plan, which runs from towards the heart of England (and *Britannia*) south to the maritime landscape of the Solent, its estuaries and harbours and the Isle of Wight. It embraces a significant stretch of one of England's major rivers, the Thames and its watershed, involving the counties of Oxfordshire, Berkshire and Buckinghamshire, but also touches on the Ouse to the north and the rivers which drain the Hampshire basin to the south. It includes a range of distinctive geologies, of which, in spatial terms, the dominant is the chalk. As the largest island of south-east Britain, the Isle of Wight stands out as a highly distinct entity of the sub-region. Between the Island and the mainland, the sheltered waters of the Solent offer a number of natural harbours. Apart from the Hampshire coast-line (and the Isle of Wight), therefore, there are no natural boundaries to the sub-region.

Any assessment of archaeological research into the Roman period within the sub-region has to begin by taking account of its position within the larger entity of Roman Britain, since this will have an influence on the development of research agendas which might have impact beyond the sub-region. Once the context of the sub-region can be considered in relation to the larger entity of Roman Britain, assessments concerning the pre-Roman-to-Roman and Roman-to-post-Roman transitions can be developed. Culturally, Solent-Thames lies within 'Romanised' Britain, though within that generalising categorisation, there is considerable variation, of which the further investigation and characterisation against the pre-Roman context is a major theme for Romano-British studies in general.

In regard to the political geography of Roman Britain, in so far as we can define boundaries, the sub-region embraces the probable entirety of one *civitas*, the Atrebatas (Berkshire, Hampshire and Oxfordshire) with its *caput* at Calleva Atrebatum (Silchester, Hampshire), a significant proportion of a second, that of the Belgae (Hampshire) with its *caput* at Venta Belgarum (Winchester), a *civitas* which otherwise stretches north-west towards Bath, and smaller areas of the territories of the Catuvellauni (Buckinghamshire, Oxfordshire), the Dobunni (Oxfordshire) and the Regni (Hampshire). Whether the Isle of Wight formed part of a mainland *civitas*, or was independently administered, we do not know. A distinctive aspect of the *civitas* of the Atrebatas is that its urban centre, along with its suburbs and cemeteries, remains a greenfield site, to be compared with other *civitas* capitals such as Aldborough (Yorkshire), Caistor St Edmunds (Norfolk) and Wroxeter (Shropshire).

This degree of preservation and protection as SAM adds a considerable premium to Calleva's research value. Going back into the regnal period of the late Iron Age and earliest Roman period (1st century BC/1st century AD), the challenges of defining territorial boundaries, in themselves probably always fluid, are even greater. Nevertheless the sub-region contains a significant proportion of the Atrebatian kingdom with its primary centre (*oppidum*) at Calleva, as well as parts of the Catuvellaunian and Dobunnian territories. Although the densely populated and defended heart of the *oppidum* remains buried beneath the later, Roman town, the overall research value of this – in modern terms - undeveloped site and its environs is very considerable. Going forward into the post-Roman period, the sub-region embraces a significant proportion of the Anglo-Saxon kingdom of Wessex, which had taken shape, with its associated, ecclesiastical and political centres at Winchester and Dorchester-on-Thames, both flourishing settlements today, by the second quarter of the 7th century. Unlike for the immediate pre-Roman and Roman periods, the archaeological resource in respect of these two centres is constrained by virtue of the modern settlements which mask the underlying archaeology. To conclude, the Solent-Thames sub-region has excellent and appropriate archaeological capacity to support research agendas concerned with three, broadly-framed themes: the origins and development of complex societies in southern Britain at the end of the 1st millennium BC, the nature of Roman provincial society in 'lowland' Britain through the prism of town and its associated, rural hinterland or *civitas*, and, thirdly, the transition to post-Roman, complex society in southern England in the second half of the 1st millennium AD.

The archaeological resource of Solent-Thames has grown out of all recognition in the last 40-50 years through a huge volume of research, much of which has been published and is in the public domain. There still remain largely untapped reservoirs of knowledge from excavations either only reported in summary form or not published at all. This unpublished work is of crucial importance for two areas of the sub-region in particular, the archaeology of Winchester and of the Isle of Wight. The problem needs urgent addressing.

Environmental evidence

By the Roman period most of the main concerns about the openness of the landscape and extent of woodland, are no longer the key issues that drove much of the earlier prehistoric research agenda. Most of the palaeo-environmental enquiry of the Romano-British period has traditionally been, and largely remains, focussed around economic issues (see Allen 1996), and on the expansion of agriculture (Van der Veen & O'Connor 1998). However, the review of recent data and current archaeological philosophies may allow the inclusion or re-introduction of some more landscape-based levels of enquiry. The resolution of interpretation required is higher than in previous periods and thus more-accurate data and better and more tightly chronologically controlled assemblages are required over space and time.

Farming

Defining the precise nature of the agricultural economy and the role of all elements in the production, trade and exchange rate are key themes that palaeo-environmental science should address from palynological sequences, geoarchaeology and land snail to provide a broad landscape background, to charred plant remains and animal bones to provide the specific produce. Farming in some parts is a major and increasingly controlled 'industry', while others remain small self-sufficient farmsteads.

Geoarchaeological issues

Challenging, but potentially rewarding, might be the possibility of distinguishing between arded and ploughed fields. Two quite different soil surface microhabitats are created by the ard and the plough. More complex is the potential variation of arded field surfaces where minor furrows are 'scratched' in the weedy field surface for a seed bed (more like a digging stick), and that created by heavily driven beam ard. The two microhabitats are physically and ecologically different as demonstrated by Peter Reynolds, and thus the ecology and mollusc communities should reflect this. In the former only a small proportion of the soil surface is broken, and weeds and vegetation provide more shady mesic microhabitats for catholic snails (*Trichia hispida*, *Coclicopa* sp. etc) and some more shade-loving species (*Nesovitrea hammonis*, *Aegopinella* spp., *Punctum pygmaeum*). Deeper arding produces a more uniform broken soil surface, but does not eradicate weeds or surface vegetation, so it too provides locally less xerophile habitats than can be seen in modern fields.

The Late Iron Age

It is well recognised from the county assessments that there are no clear boundaries between Iron Age and Roman in south-eastern Britain. Distinctive, Roman material culture, mostly imported from Gaul or the Mediterranean world, is particularly evident from the last quarter of the 1st century BC, when a variety of manufactured goods and other commodities, particularly ceramics and decorative metalwork, flows into the south-east from across the Channel. On the other hand distinctive, local fabrics and wares that are dated from the later 1st century BC continue to be manufactured well after the Roman conquest into the later 1st century AD. In material culture terms, therefore, there is little to distinguish a later 1st century BC 'pre-Roman' settlement from a later 1st century AD, early 'Roman' settlement.

Equally, it is clear from most counties that the late Iron Age/early Roman period, approximately the 1st century BC and extending into the late-1st/early 2nd century AD, was a period of major change in the countryside with the emergence in number of new settlements, and types of settlements, and the abandonment or transformation of others, such as the distinctive hillforts and banjo enclosures, notable features of southern chalk landscapes. It is against this background that the rise in contacts with Gaul and the wider Roman world can be seen and the emergence of major, nucleated settlement – in our region the *oppidum* at Calleva, but also lesser centres with – in Romanising terms – precocious material culture assemblages, such as Abingdon, Oxfordshire (Allen 1991). The evidence for this period is particularly well represented on the chalk by the work at the hillfort of Danebury in northern Hampshire and on the later prehistoric settlements associated with the successor, Danebury Environs (Iron Age) project (e.g. Cunliffe and Poole 2000a-d), as well as by excavation undertaken in advance of development around Andover (e.g. Davies

1981; Bellamy 1991; TVAS 1997; Stevens 2004), Basingstoke (e.g. Northamptonshire Archaeology 2001; 2002; Oliver 1992; Oliver and Applin 1979; Wessex Archaeology 1990; 1996) and of the M3 between Winchester and Basingstoke (Fasham 1983; 1985; Fasham and Whinny 1991). Substantial work on the gravels of the Upper and, to a lesser extent, the Middle Thames has also made a significant contribution towards understanding this period of major change (Booth *et al.* 2007). In all the above areas of research concentration, our knowledge base has been built on a significant number of complete or very extensive, modern settlement excavations associated with high quality research on both the material culture, particularly ceramics, and the biological evidence, notably faunal and charred, plant remains. While the landscapes in question have thus been selectively subjected to major, modern research programmes, it remains to be seen how change affected other environments, particularly settlement on the heavier, clay soils, such as in Buckinghamshire and Oxfordshire, and in the Hampshire Basin and the northern half of the Isle of Wight, where research has been less intensive. While the presence of imported material culture, where it is found, offers the possibility of establishing relatively tight, site chronologies, much of the archaeological record for this period is dominated by settlements where reliance has to be placed on the broader framework provided by radiocarbon chronologies or datable material culture. Eventually, out of the rural settlement pattern of the earliest Roman period emerge the villa estates of our sub-region from the late 1st /early 2nd century onwards.

While it is clear that there has been a very substantial growth in our knowledge of rural settlement and their associated agricultural economies over the last 40 years or so, particularly on the chalk and in the river valleys, it is equally clear that much more work needs to be done to set this knowledge in its full, landscape context. The sampling strategy of the Danebury Environs projects indicates how much can be learnt within a relatively small area from sites imperfectly preserved, either through the degradation caused by generations of cultivation, or by previous archaeological intervention, yet, even now, it is hard to generalise from the evidence that has been recovered. Nevertheless the model of intensive research within a limited, geographical area is one that invites further development in two respects. First, for purposes of comparison, it is necessary to take research to the understudied landscapes of the sub-region, to clarify to what extent our present, limited sample is representative; second, it is vital to take research in well studied areas a stage further in order to gain a better understanding of a period, the 1st century BC/1st century AD, which sees both expansion in sheer numbers of settlement, but also, paradoxically, quite marked dislocation evidenced by the abandonment of settlements. The importance of this formative period in the history of the English landscape cannot be understated: it provided the basis for supporting a complex pattern of urban settlement across the sub-region for over 400 years.

The Roman conquest of southern Britain

The Roman military conquest of Britain remains of enduring interest and evidence recovered from any sub-region has, potentially, significant implications for the province at large. Until recently the sub-region has had little to contribute to a history which had little changed in half a century. However, recent, but not yet fully published excavations at Alchester (on the road leading due west from Colchester) have revealed evidence of a major, arguably, legionary base (for *legio ii*) with

dendrochronology providing a *terminus post quem* for its construction from AD 44 (Sauer 2000; 2005a). This represents a significant northwards shift in our understanding of the early work of this legion in Britain. Hitherto, on the basis of written sources, which associate this legion with the conquest of the Isle of Wight and with the capture of several *oppida*, it is assumed to have operated across the southern counties into Dorset, leading the sieges attested at hillforts (*oppida*) such as Hod Hill and Maiden Castle (e.g. Frere 1987, 58). The major question of the nature of the military treatment of the Atrebates still remains. While it might seem inconceivable for there not to have been a military presence at Calleva, particularly as numismatic evidence suggests it was in the hands of Caratacus around the time of the invasion (Bean 2000, 205-10), little convincing evidence for it has so far emerged; the Roman town seems to evolve from its pre-Roman counterpart. Although the resource for understanding the Roman military presence in the sub-region during the conquest period is limited, it is difficult to see how a purposive research agenda could be developed to address this possible lacuna in our knowledge. The same is also true in relation to developing our limited understanding of the suppression of the Boudiccan revolt and the subsequent disposition of forces in the affected area. One major ‘lesson’ to be learned from the discoveries at Alchester is that it is not possible to predict with certainty the pattern and progress of the military conquest of the south.

The urban landscape

Large towns

The sub-region has two *civitas* capitals, both in Hampshire at Silchester (*Calleva Atrebatum*) and Winchester (*Venta Belgarum*). Silchester, as a greenfield site was extensively excavated in the later 19th and early 20th century, much of the work undertaken in the context of a clear research framework to determine the plan of the Roman town (e.g. Fox and St John Hope, 1891-1906). While producing plans of all the masonry-founded buildings within the walled areas, field techniques at the time were not adequate to recover systematically the remains of timber buildings, or to address the chronology of settlement. The resultant plan appears as a single period (e.g. Boon 1974, foldout). Nevertheless, with its constituent public, religious and private buildings, Silchester has provided a benchmark for the interpretation of the larger towns of Roman Britain, not least of the fragmentary evidence derived from developer-led interventions in Roman towns, such as *Venta Belgarum*, now buried under medieval and modern counterparts.

Although the Victorian and Edwardian work at Silchester was assumed to have been very destructive of the archaeology within the walls, subsequent work from the 1980s onwards has revealed the comparative superficiality of that work, with extensive preservation of stratigraphy and the possibility of recovering complex histories of individual buildings and *insulae*. It has been estimated that at least 80 per cent of the archaeology available to excavators within the walled area in the 19th century survives today. The comparable figure for the extent of preservation of the archaeology of the suburbs and cemeteries beyond the walls is surely well in excess of 90 per cent. In contrast, the scale and scope of excavation at Winchester has been very largely determined by opportunities offered through development work. While a considerable amount of work has been done, particularly since the 1960s, very little has been fully published, of which the most significant is of the late Roman

inhumation cemetery at Lankhills (Clarke 1979). Even though the biological evidence from the original excavation remains to be published, the character and diversity of the accompanying grave goods and their disposition in relation to the body provide important insights into the social organisation of late Roman Winchester, including the possible presence of migrant groups from elsewhere in Europe. While modern work, executed to the highest field standards, has provided the stratigraphic context lacking from the antiquarian work at Silchester, fundamental questions remain to be addressed about the origin, development and functions of the town, as well as the transition into the early medieval period. Notwithstanding our limited knowledge, perhaps one of the most important aspects to stress for the archaeology of the sub-region is the major differences between its two *civitas* capitals with all the potential that has for generating contrasting and individual urban histories and geographies. As illustration we can point to the very different topographies, origins and later histories: Silchester located on relatively high ground, some distance from a river and very largely dependent on wells for water; Winchester on the valley side with the River Itchen on its eastern side; Silchester apparently emerging very rapidly, perhaps as a planned town, in the last quarter of the 1st century BC. Winchester, on the other hand, is certainly established in the pre-Flavian period, but, given the lack of late Iron Age activity, notably at the Oram's Arbour (Iron Age) enclosure, without clear evidence of immediate pre-conquest origins (Qualmann *et al.* 2004). Whether or not with continuous intramural occupation from the early 5th century AD, Winchester emerges as the principal ecclesiastical centre of the Anglo-Saxon kingdom of Wessex by about the mid-7th century (Biddle and Kjolbye-Biddle 2007), whereas, by about that time, Silchester is abandoned (Fulford *et al.* 2006, 280-1). For the future, while Silchester and its environs have, for all practical purposes, unlimited potential for addressing carefully formulated research questions concerned with late Iron Age and Roman urbanism, unconstrained by a thriving, overlying city, Winchester's research agenda will be more adventitious, conditioned and constrained by the pattern of future development.

'Small towns'

The customary categorisation of towns in Roman Britain is to distinguish the larger *civitas* capitals and *coloniae* with their characteristic range of public buildings and, generally, large, defended areas from the rest which are grouped together as 'small towns', a category which includes both defended and undefended settlements. While the majority of these show some degree of planning, commonly streets or lanes offset at right angles from a single, major through route, the most conspicuous difference is in the absence of a forum basilica and monumental, civic or religious architecture (Bath being an obvious exception), except for the presence of *mansiones*, and the size of the settlement. In recent years there has been a tendency to contemplate the inclusion in the urban category of nucleated settlements, simply on the grounds of spatial extent, rather than on any analysis of function or social differentiation. The sub-region boasts four, typical, small, walled towns, *Magiovinium* on Watling Street at Fenny Stratford in Buckinghamshire (Woodfield 1977; Neal 1987; Hunn *et al.* 1997), Alchester (Hawkes 1927; Iliffe 1929; 1932; Booth *et al.* 2001), linked by the road coming south from Towcester with Dorchester-on-Thames, in Oxfordshire (Frere 1962; 1984; Burnham and Wachter 1990, 117-122), and Neatham (*Onna?*), Hampshire (Millett and Graham 1986). The typicality of these 'small towns' is that they lie on major provincial roads. Limited research has been undertaken in and around them,

influenced in the case of Dorchester by the medieval and modern settlement. While the important, early military origins of Alchester have been touched on (above, p. 00), little modern work has been undertaken on the walled settlement to explore its character and history. Aerial photography reveals the potential of the site with a range of buildings, one at least of considerable size, but of uncertain function, flanking the main, east-west street (a spur road from Akeman Street; e.g. Burnham and Wachter 1990, 99-101; Booth *et al.* 2001, 3). Nationally, the character and function of the 'small', walled towns is very poorly understood, not least why certain settlements merited defence in comparison with others located along the principal roads of the province(s). With two, well preserved, greenfield examples, the sub-region has the potential to begin to address these fundamental questions. Despite the modern settlement at Dorchester-on-Thames, there is also not only the potential to explore the relationship between the Roman town and the adjacent Iron Age settlement at Dyke Hills, but also to research further the transition into the early medieval period. While recent research, such as on the Queenford Farm cemetery, has focused on late Roman and early Anglo-Saxon period burials and cemeteries outside the town (Harman *et al.* 1978; Chambers 1987), much remains to be done to understand the role of the town, which boasts a dedication by a relatively high status Roman official, a *beneficiarius consularis*, and which was also later, in the 7th century, the seat of Bishop Birinus (Blair 1994, 39-41, 58). The Oxford Institute of Archaeology/Oxford Archaeology 'Discovering Dorchester' project considers these issues and one of its focusses is the late Roman/ post Roman transition within the walled town.

In addition to what have been described as 'typical' walled towns, there is a further, defended settlement to be considered in the sub-region. Clausentum, on the estuary of the Itchen in Hampshire, is a case in point (Cotton and Gathercole 1958). With evidence of defences from the late 3rd century (contra Johnson 1979), it is regarded by some as a possible Saxon Shore fort, even though its name does not occur in the late 4th/early 5th century *Notitia Dignitatum*. However, with occupation dating from the pre-Flavian periods onwards, it is clearly of significance, presumably as a port (see below, p. 00), strategically situated at the head of Southampton Water. Though at least partly buried beneath Bitterne, a suburb of Southampton, this remains a key site for research on the coastal communities of Roman Britain and their relations with other regions and provinces of the Empire. There still remains the issue of the early (pre-Norman) fortification at Carisbrooke Castle and its date. For many years it has been conjectured as a possible component of the late Roman shore-fort system although there is no name in the *Notitia Dignitatum* that could reasonably be attributed to the Island location. Despite the lack of Roman material from Young's recent excavations at Carisbrooke Castle, the early enceinte still remains undated (Young 2000), but a quantity of Roman brick and tile has been recovered from other, earlier excavation at the Castle (Rigold 1969). The circuit is somewhat anomalous in a Saxon context but, against the background of the larger seascape/landscape of the Solent and the Isle of Wight, with late Roman defended sites at Clausentum at the head of Southampton Water and Portchester at the head of Portsmouth Harbour (and Chichester), the absence of equivalent fortification on the Island is puzzling.

Further to the walled towns, the sub-region boasts a number of undefended roadside settlements, including one at Fleet Marston in Buckinghamshire, of which only a couple, Asthall and Wilcote in Oxfordshire, have seen modern excavation of note

(Booth 1997; Hands 1993; 1998; Hands and Cotswold Archaeology 2004). Given the apparent importance of the roads represented in the sub-region, not least Akeman Street and the Devil's Highway, which provide east-west communications (below, p. 00), as well as Watling Street to the north, the incidence, extent and characterisation of the associated roadside settlements offer the possibility of beginning to 'fingerprint' the character of different highways. A major question is the variability of settlement which develops alongside such roads of the province(s) and how far that analysis offers the possibility of gauging their relative importance as transport routes. The Oxfordshire research has not yet been matched by work on the comparable, roadside settlements represented in Berkshire and Hampshire, which to a large extent remain undefined. Indeed our ignorance of these settlements, including even their precise location and extent, is highlighted by the difficulty of matching sites with names of settlements with presumed *mansiones* or relays (*mutationes*) for the *cursus publicus* listed in the Antonine Itinerary and Ravenna Cosmography.

Urban economies and industries

Urban centres contain subtly different evidence of food stuffs and activities from the rural sites, but perhaps some of the large contrast, apart from sheer quantities, can be in the processing and butchery (e.g. Maltby 1985; 1989).

Lived-in environments

Urbanisation creates specific environments which are rarely dealt with. Their appearance and level of maintenance have not been explored and environmental evidence might shed some light on these issues.

Nucleated settlements

Other nucleated settlements in the sub-region, particularly those whose role in the road network may have been subsidiary to other functions, deserve comment. Outstanding among these is that at Frilford, Oxfordshire where recent excavations have valuably strengthened our knowledge of the settlement, including important religious and ritual aspects (Lock *et al.* 2003; Lock and Gosden 2004; Gosden *et al.* 2005). Probably not unconnected to the latter, this is one of a very small number of smaller, nucleated settlements in Britain, and the only one so far known in the sub-region, which boasts an amphitheatre. For the vast majority of the smaller, nucleated settlements in the sub-region we know very little. The potential interest and significance of these sites is sometimes highlighted by metal detectorist finds, such as those of *siliquae* from the ill-understood settlement at Stanford in the Vale, Oxfordshire. Gill Mill, however, has provided the opportunity for extensive excavation of a nucleated settlement. In the context of such a weak knowledge-base it is hard to realise that our sub-region – as, indeed the larger region as a whole – probably supported numerous nucleated settlements of the kind which are well represented by complex arrays of earthworks among the well preserved, chalkland landscapes of the military training area of Salisbury Plain, but in our sub-region have been ploughed out, whether on chalkland or other landscape environments. This underlines how far we have to go to understand the lesser nucleated settlements of the sub-region and to characterise their social and functional differentiation.

Rural settlement

In contrast to the lesser nucleated settlements, a great deal more is known of single settlements or settlement complexes like villas. Partly this is a reflection of the intensity of effort by antiquarians on masonry structures in the countryside which might yield spectacular examples of Roman civilisation, such as mosaics, but partly it is the result of extensive modern developments which have required large-scale excavation of single sites. This is true in the context of major, modern urban and other settlement development, such as the development of Milton Keynes, Buckinghamshire and of the expansion of small towns like Abingdon, Oxford. The former provided the context for the extensive excavation of the large villa complexes at Bancroft (Williams and Zeepvat 1994) and Stantonbury as well as smaller farms with Roman-style buildings such as Wymbush (Zeepvat 1988), while the latter led to the excavation and detailed publication of the small villa at Barton Court Farm (Miles 1986). These development-led excavations associated with full publication have now been complemented by a major, research investment on villa and other settlements that formed the Roman phase of the Danebury Environs project on the heavily ploughed chalkland landscape of north-western Hampshire. In several cases this involved re-visiting and re-evaluating villas first investigated in the 19th or earlier 20th century (Cunliffe 1991; 1993). Thus, in the sub-region we have good examples of well researched clusters of rural settlement in three contrasting landscapes: the clay and drift soils of northern Buckinghamshire around Milton Keynes, the gravels of the Upper Thames around Abingdon, Oxfordshire, and the chalklands of north-west Hampshire close to Andover, the latter complementing slightly earlier work undertaken on villas, such as Latimer, Buckinghamshire, in the Chilterns (Branigan 1971). In west Oxfordshire, close to Akeman Street and exploiting light and heavy soils, we also have the example of the extensively researched and published Shakenoak villa (Brodribb *et al.* 1968; 1971; 1972; 1973; 1978), the only site in the sub-region with possible evidence of fish-farming (*ibid.* 1978, 15-20).

In the first place, the above excavations have provided good chronologies which, for the most part, have shown trajectories of development which go back to the late 1st century BC/early 1st century AD, this really critical period in the expansion of rural settlement in the sub-region. Frequently late Iron Age buildings are found to underlie Roman-style constructions, although not in Oxfordshire. In addition this work has provided enormously important assemblages of both material culture and biological evidence, which, together, have provided the basis for reconstructing their respective agrarian regimes, particularly in the areas of animal and crop husbandry. An extremely valuable aspect of the work undertaken in the context of the development of Milton Keynes was the capture through excavation of a range of settlements (Mynard 1987). By no means comprehensive in its coverage of the landscape, this has nevertheless given a much clearer idea of the diversity of rural settlement across a limited area of the countryside and of the perpetuation from the Iron Age into the Roman period of traditional architectural forms, notably round houses. Bearing in mind discoveries outside the sub-region, such as at Stansted in Essex, the latter are clearly more common than has previously thought to be the case. They have also found, for example, on the clay soils of East Berkshire (e.g. Roberts 1995).

While excavation of single sites has been the principal methodology of researching rural settlement, extensive landscape survey involving surface collection of material culture has also been deployed in the sub-region, as in the East Berkshire and Kennet

Valley Surveys (Ford 1987; Lobb and Rose 1996), or the Whittlewood Survey in north Buckinghamshire (Jones 2003). The latter have provided important information on the existence and density of settlement of different periods and on soil types where there had been no history of systematic work before. However, in the case of the Maddle Farm Survey (West Berkshire), a major concern of which was the characterisation of the agricultural exploitation of the chalk downland landscape during the Roman period through the systematic analysis of off-site sherd (manuring) scatters, sample excavation was carried out on a limited number of sites to provide, principally, chronological control, as well as stratified samples of material culture and biological data (Gaffney and Tingle 1989). Further, complementary field survey involving surface collection (but without sample excavation) was undertaken below the chalk escarpment of the Berkshire Downs of a sample of the Vale of the White Horse, Oxfordshire (Tingle 1991).

Re-evaluation of surveys already undertaken in a variety of soil and landscape settings in combination with assessment of the evidence of excavated sites have the potential to lead to fresh insight into the question of population size during the Roman period. A range of figures, with considerable variation in magnitude, have been suggested in the past. Although there is scope for more, targeted survey in under-represented areas in the sub-region, there is the potential now for re-evaluating the data we have already collected for the insights it can provide on population dynamics and its role in economic growth and decline.

The sub-region thus has a formidable resource base upon which to extend the important work on rural settlement and the exploitation of the landscape, whether by extensive survey including geophysical survey and surface collection in those limited areas where considerable excavation has taken place, or by developing excavation (and geophysical survey) programmes to extend understanding of those areas where surveys by surface collection have been undertaken. With this approach two important questions can be addressed: first, the economic and social relationships between individual settlement components of a sample landscape; second, the larger question of the relationship between the rural settlements (including nucleated settlement) of a *civitas* and their *caput*.

If the emphasis up to now has been on the individual settlement, it should not be overlooked that the sub-region has a rich range of resources which provide the basis for understanding the look of the countryside in terms of the location of woodlands and the existence and spread of field systems, as, for example, those on the Berkshire Downs.

Woodland resources and woodland management

Woodland, though less predominant physically in the landscape, and in the level of archaeological enquiry in this period, is nevertheless, still a key resource. The nature and variety of potential woodlands are rarely addressed; though certainly evidence from old and unmanaged, and essentially unused woodlands will be more difficult to recover in the direct (i.e. charcoal and waterlogged wood) record. Nevertheless, woods are still required for pannage, as well as fuel, timber for construction (fencing, buildings, bridges, harbours/jetties, boats) and for personal and other objects (bowls, furnishings etc). Thus charcoal and waterlogged wood records are important in the

first instance in recognising the presence, if not the location, of managed, coppiced and pollarded woodlands. There is relatively little evidence to date on where the main woodlands were located, although some informed guesses have been made, such as on steeper slopes of the chalk and Chilterns.

Field systems and paddocks

The distribution of field systems seems to indicate areas, and topographies or geologies that were under less cultivation pressure. Field systems seem to extend from the higher slopes and onto the footslopes, indicating that they may extent into footslope and dry valley locations have been sealed by hillwash (such as at Ashton Clinton and Pitstone, Buckinghamshire, and the Meon valley Hampshire). Fields for animal husbandry are less likely to have such pronounced lynchets and banks, as pasture does not result in as much erosion as cultivation. Paddocks have been recorded at, for instance Broughton, Milton Keynes, and long narrow rectangular fields located elsewhere (e.g. Berryfield, Aylesbury, Weedon Hill and Pitstone in Buckinghamshire).

Field systems were studied as part of the Maddle Farm survey (Gaffney and Tingle 1989) and were shown to be both Roman in date and integral to understanding the role of stock-raising in the agricultural economy of that landscape (see also Ford *et al.* 1988). Ideally, if we are going to characterise the totality of settlement and its diversity within a small sample area, we need to know the location and layout of fields and field systems as well as the role of more significant, linear boundaries, such as the North and South Oxfordshire Grim's Ditch systems (Copeland 1988; Cromarty *et al.* 2006, 157-200), the linear earthworks around *Calleva* (Silchester), or the earthwork complexes to the east of Winchester around Avington (Crawford 1951). Away from the chalk we still have very little idea of the extent to which the land was parcelled out into fields in the late Iron Age and Roman periods, rather than given over to woodland or common grazing areas. The writing tablet from London which records the sale of a wood in Kent (Tomlin 1996) reminds us of the detailed mapping and recording of the landscape on the part of the provincial authorities. We are still a very long way from recovering such details of the late Iron Age and Roman landscape of the sub-region.

Specialisation and regionality

In some areas hay meadows have been specifically defined such as in the Thames valley and this has been argued to be specialisation and supply for the Roman army. Other examples of specialisation may also be identified from environmental assemblages. The roles of the sites in terms of meat vs cereal production or even dairy vs meat herds is important to examine variation between main farmstead types, but also to start to look at regional specialisation. In particular, the current bias towards sites on the chalk needs balancing (see for example Hambleton 1999; Hambleton undat.). At Maddle Farm, Berks, for instance seems to have been large a flourishing pastoral estate with some agriculture (Gaffney & Tingle 1989), and the details of these types of interpretation.

Cattle generally predominate in most faunal assemblages followed by sheep and pig with some domestic fowl present on many sites. However pig are more common than

sheep in the third century AD at Latimer in the Chilterns, Buckinghamshire and this may be due to assemblage or site/context biases, or might indicate some regional variation (Maltby 1985; 2002). The proportion of animals and their age profiles, as represented in the faunal assemblages, from rural sites can assist in characterising and mapping Roman farming in the Thames-Solent corridor.

In general spelt wheat (*Triticum spelta*) dominated, while other cereals such as free-threshing wheat (*Triticum* sp.) and emmer (*Triticum dicoccum*) and barley (*Hordeum*) are present. The proportions of these cereals according to site type, geology/soil and over time would also contribute to the mapping. In addition the cultivation of other food plants can also be demonstrated. Fruit and vegetables are less common because the chances of pips and stones becoming charred are less than cereal crops. Nevertheless, the preservation of soft fruit and vegetable remains by waterlogging has been recorded in Oxfordshire (Bancroft, Pearson & Robinson 1994), indicating the high potential value of such deposits. This direct palaeo-environmental evidence corroborates field evidence of ditched fields or enclosures, such as at Mantles Green, Buckinghamshire, for instance (Yeoman & Stewart 1992), which may relate to vegetable or herb gardens. Celtic bean is present on a number of sites, and is in more evident than cereal remains at Brading Roman villa on the Isle of Wight (Scaife in Trott 1999) possibly indicating specialisation. Flax has been recorded at a number of sites, in particular in Buckinghamshire, Oxfordshire and Berkshire, and a number of other specialised crops are also recorded from the Roman-British period.

Foodstuffs, trade, presence and consumption

The definition of a Romano-British diet should be within the grasp of palaeo-environmental analyses and interpretations. Aiming towards defining this as well as the broader economy would considerably enhance our comprehension of Roman lifestyles. Here the presence of table foodstuffs may be provided by charred and waterlogged remains, but also in faecal remains and mineralisation. Interestingly, palaeo-environmental archaeologists have not attempted to recreate, via their accumulated data rather than speculation, any menus or meals. Yet there are Roman recipes, including the use of snails, fish (*garum* or *liquamen*). People do not eat species; they eat meals (Sherratt 1981), and meals such as; peas a la Vitellius, milk-fed snail and mussels with lentils are reputedly known.

Luxury and prestige foods – meats and fruits became socially exclusive. The range and variety of foodstuffs in the Roman diet increased with the import of foods from Europe and the presence of imported foods such as walnuts (*Junglans*), grapes (*Vitis*) and vines is recorded.

Processing, parching and butchery

The types of crop processing wastes are often indicative of the use of the grain. That is whether it is processed to store in spikelet form, and as grain corn, or processed for consumption. This evidence provides interpretation for specific activities, but also possibly of the role and function of specific features or even sites (cf. Stevens 2003). Corn drying ovens/kilns are widely distributed and common throughout the period, and yet the function of these still remains enigmatic or multifunctional despite van der Veen's work (1991). *Triticum spelta* (spelt) has also been recorded in corn drying

ovens and other ovens may have been used for parching beans as suggested at Brading Roman villa, Isle of Wight.

The processing of animal carcasses and butchery patterns and practices vary in urban vs rural assemblages (e.g. Maltby 1985; 1989), and similar analytical approaches across sites need to be adopted to enable full inter and intra site comparisons. This data can feed into many of the broader themes such as native vs villa estates, regional specialisation (above) and urban and lived-in environments (below).

Built environment

Much of our knowledge of the architecture of the sub-region is based on antiquarian excavations of rural and urban settlement. Thus our knowledge of the urban, built environment is heavily influenced by the plans of buildings recovered by the Society of Antiquaries' excavations at Silchester. So, too, our knowledge of villa and other buildings in the countryside is still very dependent on early work which was not sensitive to the chronological development of individual structures particularly of timber or groups of buildings. New work across the sub-region is leading to major changes in perception of the rural built environment, including increasing recognition of the continuation of traditions of later prehistoric roundhouse architecture into the late Roman period. At the same time, as in the very recently published Roman Danebury Environs project, re-examination of already excavated villa buildings has provided important new information on other distinctive building types, such as the aisled hall. Equally, excavation in towns like Silchester is beginning to show the complexity of the architectural development underlying both public buildings, such as the amphitheatre and forum basilica, and domestic buildings which make up the Antiquaries' 'Great Plan' completed in 1909. The small sample (<0.3 ha) of late 1st/early 2nd century (timber) built environment revealed by the continuing excavation of insula ix, Silchester has no parallel elsewhere, not least because of the dearth of research on the early Roman towns in Britain. The extent of our ignorance is reinforced when we look across to the 'small towns' and the evidence of their built environment, as tantalisingly revealed by aerial photography at Alchester and at Samsoms Platt (Winton 2001), Oxfordshire, but not researched through modern excavation. In sum, the sub-region has much to contribute to our knowledge of the architecture and built environment of Roman Britain. To date, however, lower status rural settlements have failed almost totally to provide evidence for structures.

Industrial settlement and landscape

The sub-region is distinctive in having two major Romano-British pottery industries of national importance (see further below) of the New Forest and Oxfordshire located within it. Much of our knowledge of these industries derives from the kilns themselves while their larger, landscape context, extending in each case over tens of square kilometres, remains poorly studied, partly for reasons of modern urban development (Oxfordshire) and partly because of managed afforestation (New Forest, Hampshire). Nevertheless, just as the impact of urban communities on rural settlement and the landscape requires further evaluation, so, too, does the impact of rural-based industries in terms of the character and location of the settlements of the pottery manufacturers, the supply of fuel and clay, the degree of specialisation of

potting communities, particularly in relation to other agricultural activities, the extent of take-up of potting among settlements as a whole in the respective areas, and so on.

Island settlement and landscape/coastscape

The question of urban-rural relationships is not, of course, relevant to the Isle of Wight, where there is no evidence of *civitas* organisation. This begs the question whether the settlement pattern and agricultural economy of the Island were otherwise significantly different from that of the mainland. The absence of roads has obviously discouraged the development of nucleated settlement. However, the possibility that such settlement did develop needs urgent investigation. In particular, the context of the historic discoveries of the Carisbrooke villa (Spickernell 1859) and other reported Roman buildings in its vicinity towards the centre of the Island requires evaluation to determine whether they represent individual elements of a nucleated settlement.

While there is a great deal of unpublished research which relates to recent excavation and evaluation of late Iron Age and Roman settlements in a variety of landscape contexts across a range of site types on the Island, earlier work has shown that villas and Romanised settlement forms have been discovered across the Island, giving the appearance of a landscape little different to that on the mainland. Bringing to publication recent work is undoubtedly a priority and would be a very helpful contribution to our knowledge of settlement patterns and diversity on the Island. There is also a strong argument for integrating it with a focused study of a sample of the Island's landscape which combines survey and excavation methodologies. This would provide an enormously valuable comparison with similar mainland projects of the kind described above and, thereby, a powerful contribution to the debate about the nature of urban-rural relations. It would also address the question whether the pattern of Island settlement and acculturation mirrors that of the mainland throughout the late Iron Age and Roman period, or whether there are periods of greater or lesser integration with the mainland.

The Isle of Wight draws attention to a distinctive aspect of the sub-region's landscape – the Hampshire and Isle of Wight coasts and the extent to which they supported distinctive, maritime settlements and economy. At present there seem to be two very contrasting types of settlement evidence. On the one hand there is the major settlement at Clausentum, defended from the late 3rd century onwards, but about which little is known; on the other there is the material – pottery, coins, animal bone – collected from the intertidal zone at Fishbourne Creek on the Isle of Wight and interpreted as a small emporium (Lyne forthcoming). This invaluable collection of material invites us to consider to what extent it might be representative, as a minor and informal trading point, of small ports and harbours more generally along the Solent shores and estuaries of the sub-region. Thus far there is no evidence of more formal port facilities along both Island and mainland coastlines, even though they might reasonably be expected at Clausentum and at the late Roman fort at Portchester.

In general, our resources are not particularly helpful in determining the role of the coast and maritime relations in the life of the sub-region during the Roman period. Although imported amphorae, notably the Dressel 1 types of the Roman Republican period and other imported pottery from Brittany have been recorded from central southern Britain in the later pre-Roman Iron Age (e.g. Fitzpatrick and Timby 2002),

Roman-period artefact distributions do not help us to define either a role for ports in general of the Hampshire and Isle of Wight coast, or of specific ports such as Clausentum. Biological data, such as oysters suggestive of a south coast origin, or the presence of marine fish recorded from inland sites such as Silchester (e.g. Hamilton-Dyer in Fulford and Timby 2000, 482-4), merely beg the question as to their relationship with coastal settlement and the degree of intensity in the exploitation of marine resources. Even where distinctive evidence is recovered, as with the settlements associated with shell middens in the Ventnor area of the south coast of the Isle of Wight (Poole 1928), this may simply reflect local consumption rather than any engagement with mainland markets. In regard to cross-Channel or Atlantic trade, the evidence from the Isle of Wight is, by comparison, particularly helpful for the late Iron Age/earliest Roman period when distinctive imports of amphorae of Dressel 1 and 2-4 types have been recorded from a large number of island sites. The assumption is that this material derives from direct contact between overseas traders and island communities, rather than through redistribution from mainland ports such as Hengistbury Head (Dorset), which was particularly active in the later Iron Age (Cunliffe 1987; Fitzpatrick 2001).

Ceremony, ritual and religion

Evidence of temples, shrines and of religious activity more generally is represented in a variety of forms among the settlements of the sub-region. The distribution of built (temple) sites is uneven, with an emphasis to the north of the sub-region with examples in Buckinghamshire (e.g. Thornborough), Oxfordshire and (east) Berkshire, but fewer known sites in west Berkshire, Hampshire and the Isle of Wight. Albeit poorly understood, temples and shrines represent one component of the urban fabric and are integral with it, while in rural situations they may appear as a distinct element of the landscape, even if, in some cases, settlement may have developed around them. This may be the case with the development of the settlement at Frilford, Oxfordshire from the Iron Age, discussed in the context of nucleated settlement (above, p.7, but cf Harding 1987, 12-16). Other, nationally important temple sites such as Weycock Hill at Waltham St Lawrence, Berkshire and Woodeaton, Oxfordshire have undergone some modern work, but the discovery, on the one hand, of the great Iron Age coin hoard attributed to Weycock Hill (Burnett 1990; Bean 2000, 253-62) and, on the other, through aerial survey, of further temple buildings at Woodeaton (e.g. Henig and Booth 2000, 89) remind us how little is known of these two sites and how they relate to local settlement from the late Iron Age onwards. Context is also an important question in relation to the Hayling Island (Hampshire) temple (Downey *et al.* 1979; King and Soffe 1998), where completion of the publication of this important late Iron Age and Romano-British site would make an important contribution to the archaeology of the sub-region. While the process of classification draws attention to 'Romano-Celtic' temples and shrines as distinct types of site, deserving of further research in their own right, they should not be divorced from their landscape context where they may be seen, alongside rural settlement with a similar chronology, as part of the appropriation of estates and the development of new patterns of land ownership from the late Iron Age/earliest Roman period. At the same time, the unevenness of distribution noted above suggests that, as with the enigmatic rectangular enclosure at Lowbury Hill, Oxfordshire (Fulford and Rippon 1994), the expression of cult and religion in built form takes on different, physical identities in different parts of the sub-region. Chance discoveries of single finds such as of the altars from Bampton

and Bablock Hythe, Oxfordshire (Henig 1993, nos 28, 35) and of the Christian, lead tanks from a well at Caversham, Berkshire (Booth *et al.* 2007, 223) and from close to the villa at Wigginton, Oxfordshire remind us how little we know, not least of their relationship with settlement and religious practice.

The discovery of single finds, such as the lead tanks, from secondary contexts reminds us of the potential breadth of ritual behaviour and the increase in recognition of special or structured deposits which can range from major deposits of metalwork, represented in the sub-region by the celebrated pewter hoards from Appleshaw, Hampshire, Appleford, Oxfordshire and Thatcham, Berkshire (Poulton and Scott 1993), to those of articulated animal remains placed in pits or wells. While the work of Hill (1995) for Wessex and Grant (1984) for the hillfort of Danebury, Hampshire has shown that structured deposition in the Iron Age of animal remains is well represented in the sub-region, particularly among settlements on the Hampshire chalk, variability in practice across different environments of the sub-region and the landscape at large is not well researched for the Roman period. A votive explanation for prehistoric finds of metalwork associated with watery contexts is widely invoked and generally accepted, but the equivalent has not been systematically researched for the Roman period. For example, there has been no survey of Roman finds from the Thames (or from any river in the sub-region) in the way that there has been for later prehistoric materials.

Other evidence for religious activity can be found particularly in rural areas; a Taranis shrine was identified at Wavendon Gate, Milton Keynes. The PAS records may help locate sites.

Cemeteries

Patchiness of the record in regard to the structured deposition of material culture and animal bones corresponds with the uneven quality of the record for the burial of human remains which become archaeologically visible again from the later Iron Age. With cremation the predominant mode of disposal in the 1st and 2nd centuries AD, there have been no extensive excavations of cemeteries, particularly urban, in the sub-region. On the other hand there has been recognition of what seems a regionally important burial tradition in Hampshire, of richly furnished, single and multiple cremation-burials (Millett 1986; 1987). However, there has been modern investigation and partial publication of one large inhumation cemetery, that of the extramural cemetery of Lankhills at Winchester, Hampshire in the sub-region (Clarke 1979). Even without the inclusion of the human remains in the publication, that of the disposition of the graves, their cuts, fills and the associated grave goods is proving of immense value in defining late Roman burial practice and initiating debate about group identity within and around the late Roman city (e.g. Baldwin 1985; Evans *et al.* 2006). More recent excavation of the Lankhills cemetery and analysis of the human remains are adding valuable new perspectives on the earlier work. Other urban cemeteries are less well researched, though the potential for ‘small’ towns, as indicated by the Queenford Farm cemetery outside of Dorchester-on-Thames, Oxfordshire (Chambers 1987) and finds of burials outside *Magiovinium*, Buckinghamshire (Neal 1987) all hint at the potential for more extensive research. A major question, relevant as much for Roman Britain as a whole as for the sub-region,

is how far, if at all, there was significant variation in the demographics – gender, age structure, pathology, etc - between town and country, and in burial traditions, such as the presence of inhumations among early Roman cemeteries (where cremation is the norm) and the presence of cremations among late Roman burials (where inhumation is the norm) (e.g. Boyle and Chambers 2007). The role of distinctive, rectangular enclosure of early Roman cremation cemeteries in the sub-region, as, for example, at Roden Down, Berkshire (Hood and Walton 1948), but evidenced through aerial photography elsewhere, also requires further investigation. Two examples of bustum burials have been noted in the region, one at Didcot, Oxfordshire and the other at Denham, Buckinghamshire and this type of practice would merit closer study. In general, and crucial to addressing all these questions is the need for the identification, excavation and full publication of rural, inhumation cemeteries across the sub-region.

Communications

Apart from natural communication routes, which, in the case of the south coast harbours and access to the sea, also offer the possibility of considering relations with regions beyond the Roman province(s), the sub-region contains Roman roads which played a significant, strategic role in provincial life, linking the sub-region to the province(s) beyond. Here we note the road leading westwards to Silchester, then, variously, to the south-west to Dorchester (Dorset) via East Anton, to the west to Bath, and to the north-west to Cirencester from London through Berkshire and Hampshire, and a second, major, east-west route in the north of our region, probably originating in Colchester and then running westwards through Verulamium to Alchester and on to Cirencester. While, with the west-to-east- flow of the Thames to consider, the sub-region thus has a major sample of routes linking east and west and, particularly, London with the west of Britain, including Wales, the north-south configuration of the counties invites us to consider the importance of north-south communications, here represented by roads leading south from Towcester, through Alchester and Dorchester to Silchester, thereafter to Chichester and Winchester. A second north-south road links Cirencester with Winchester (via, amongst other small towns, East Anton) and beyond. While the onward road connections with ports at Clausentum and, later, Portchester are far from clear, the existence of the latter (and with Chichester, to the east) invite consideration of the role that the harbours of the Solent played in facilitating trade and traffic from the south coast to the north and vice versa and how such maritime trade differed from that handled by London and the Thames Estuary. Examining the role and relative importance of different roads and, in particular the relative importance of east-west as opposed to north-south communication through consideration of the size and material contents of the numerous settlements which developed along them (see also above, p.6) is an issue of provincial-wide importance and one which is appropriate to the resources of the sub-region. From the perspective of the written sources, while Calleva is listed in a number of itineraries in the Antonine Itinerary, none of these include settlement on the road north to Alchester.

Consideration of the role of the rivers of the sub-region and, particularly, of the role of the Thames and its major tributaries is also of considerable importance. That the Thames was probably of major significance in the late Iron Age and earliest Roman period is indicated by the emergence of centres, such as Taplow, Buckinghamshire and Abingdon and Dyke Hills, Dorchester on Thames, Oxfordshire (e.g. Allen 2000,

22-27), along its length. Equally, even if its location is not right beside the Loddon, a significant tributary of the Thames, it is hard to account for the rise of Calleva unless communication linking to the Thames played a major role in its development. The closest parallels for its late Iron Age and earliest Roman material culture certainly lie to the east, to Essex, Hertfordshire and Kent. By the same token, and paralleling the situation in the Iron Age, the role of the Thames needs to be considered in the context of the early emergence of Anglo-Saxon settlement at and around Dorchester on Thames in the 5th century.

It is always assumed that the relatively cheaper water transport offered by seas and rivers would have taken priority over that carried overland, but objective data are seriously lacking. Similarly fording places, bridges and pontoons must have existed across a number of rivers, streams and brooks which would considerably aid our understanding of the Roman built environment, but also provide us with stratified palaeo-environmental (pollen, sediment and snail) sequences. While the question of the sacred nature of rivers and watery places has been commented upon (above, p. 12), there still remains considerable scope to examine the role of the rivers as a means of communication and as a source of food. While study of Oxfordshire pottery suggested that the Thames may have provided a major role in its distribution, this is hard to prove definitively (Fulford and Hodder 1974; cf Booth *et al.* 2007, 314-5). Much more quantitative data derived from the study of pottery and other types of material culture are required before we can discriminate confidently between the roles of river as opposed to road in the distribution of food, raw materials and manufactured goods. Riverside settlements are known at several locations along the Thames, but they tend to be obscured by medieval and later development as at Dorchester, Reading or Henley, for example. Research on Roman material dredged from the Thames might be helpful both in regard to locating further riverside settlement, as well as material transported along it. The question of the extent and scale of river transport is by no means confined to the Thames, but is relevant to other rivers of the sub-region, ranging from the Ouse in Buckinghamshire to the rivers of the south Hampshire basin.

Like the Zwammerdam craft from the lower Rhine region, the small, Barland's Farm craft recovered from the Wentlooge Level of south-east Wales (Nayling and McGrail 2004) reminds us of the kind of vessel which could have navigated the rivers of the sub-region and the size of cargo that it might have carried. Indeed, Roman material recovered from the Solent is also a reminder of the possibility of recovering the remains of Roman sea-going craft from that part of the sub-region. There is clear evidence of cross-channel links in terms of the Roman population itself and continued trade and the import of foodstuffs and wine etc, but little physical evidence of the ports, harbours, quays, jetties or even boats. Examination of coastal and intertidal areas along the Hampshire and Wight margins of the Solent may find evidence of these. Waterlogged timbers should therefore be examined and routinely radiocarbon dated. Further both waterlogged intertidal and riverine (alluvial) deposits may contain evidence of boat fragments and jetties. Detailed excavations and surveys have to date recovered material of prehistoric and Saxon date such as at Testwood and Langstone harbour, but not yet of Roman date. In part little effort has been expended in this direction, and detailed geoarchaeological survey may be required to aid locate likely location of eroded, or even *in situ* finds and evidence.

Material culture

Roads, rivers and the sea were critical to the distribution of foodstuffs and consumer goods. While tracking the former is relatively hard except when it is carried in distinctive containers such as amphorae or barrels, distinctive categories of material culture offer the possibility of tracking the production of particular industries or kinds of object. More importantly and led by provincial-wide studies of lamps and lighting equipment (Eckardt 2002), toilet instruments (Crummy and Eckardt 2003), etc, the study of material culture in general has considerable, untapped potential for addressing questions of acculturation and social identity at a regional and sub- or micro-regional level. The significant level of material recorded by the Portable Antiquities Scheme (PAS) could play a valuable role in this area. Solent-Thames is well placed to examine the relationship between new, Roman or Gallo-Roman material culture and native traditions in the critical period of change during the later 1st century BC and 1st century AD. Much of that direction of change was from the east, the counties bordering the Thames Estuary, but there is also the contribution of the ports of entry of the south coast to be explored. Beyond that and into the Roman period proper, the 2nd to 4th century, the study of the spread of Roman coinage alongside that of manufactured Roman consumer goods through the *civitates* of the sub-region has much to contribute to our knowledge of the development of urban and rural markets. Gaining greater insights into differential and changing access to the various types and categories of material culture will contribute to a better understanding of the variable social role that it played through the settlement hierarchy of the sub-region.

Industry

Pottery industries

Reference has already been made to the landscape and settlement context of the larger industries of the sub-region, in particular the potteries of the New Forest (Fulford 1975a) and Oxfordshire (Young 1977), where surprisingly little is known about the various components of the process of pottery making other than the final stage of firing, represented by the kilns themselves. So, clay extraction and preparation, the acquisition of the fuel (and the management of woodland resources), the workshops and drying sheds are all poorly understood. While the sub-region is dominated by these two industries and that of Alice Holt/Farnham region (Surrey), right on its boundary (Lyne and Jefferies 1979), very little is known about the relationships between them. There is also the Poole Harbour industry, situated just beyond the south-western boundary of the sub-region to consider. The earliest to begin production and make impact in the sub-region is the Alice Holt industry and its products are well represented in assemblages in London and Silchester by the third quarter of the 1st century AD. The origins of the Oxfordshire industry are less clear but it is making a significant contribution to pottery assemblages at Silchester by the mid-2nd century AD. It overtakes the Verulamium-region industries by the later 2nd century and, along with the Alice Holt industry, dominates consumption in the sub-region in the 3rd and 4th centuries. Unlike the Verulamium-region industry which was located close to Verulamium, and with kilns stretching along Watling Street towards London, the Oxfordshire kilns are situated alongside the Alchester-Silchester (north-south) route, relatively remote from a major urban agglomeration. This location gives

us the means for exploring the significance of the north-south line of communication, perhaps also linking with a river port at Dorchester on Thames, relative to the east-west, in the sub-region. The origins of the New Forest industry, even more remotely located, are also unclear, but the full repertoire of table and grey wares was certainly established by the late 3rd century. There are two major issues to be explored here: one is the possibility of earlier production of grey wares in the 2nd and earlier 3rd centuries, where analysis of independently dated assemblages from Winchester will be of crucial importance. The second is the relationship with nearby Poole Harbour production which was supplying distant markets, such as the northern frontier and London by the early-to-mid 2nd century. Although there is some complementarity of production in the later 3rd and 4th centuries with colour-coated and parchment/white wares reserved to the New Forest, the manufacture of cooking and domestic wares is common to both industries. How did this relationship work, given that Poole Harbour BB1 remains a major component of pottery assemblages in the sub-region into the first half of the 5th century?

While there has been considerable progress in mapping the distribution of the late colour-coated and ‘parchment’ wares of two of the industries, much less is known about the grey and white wares, the former being common to all three. The sub-region offers the possibility of significantly enhancing our understanding of the inter-relationships of these three major industries, not least with regard to the wares and types of vessels all three of them produced. If furthering our knowledge of these three industries addresses topics of national importance, we should not overlook other pottery production in the sub-region whose study will help inform us both about the movement of ideas, but also of minor networks of marketing and distribution. The late Roman grog-tempered production, for example, thought to be located in the south Hampshire basin, was a significant supplier in the sub-region with a presence as far north as Silchester and south Wiltshire (Lyne 1994). Its relationship with similar, but earlier established production in the nearby Isle of Wight (Vectis Ware; Tomalin 1987, 30-40) demands investigation. Indeed ceramics offers a valuable medium for exploring the relationship between the Island and the mainland (and, across the Channel, to northern France). On the whole it would seem that Vectis ware consumption was very much confined to the Island. The fact of insular production hints at inadequate or irregular supplies of cooking/domestic wares from mainland sources, and the lack of off-Island movement of Vectis Ware reinforces that perception. Nevertheless Island sites still have good representation of the major traded wares represented on settlements across The Solent.

Brick and tile

While pottery industries remain a very important and distinctive resource of the sub-region, we should not overlook brick and tile. While, on the basis of its bulk and the quantities required in any building project, whether urban or rural, it is assumed that most production will be located close to the point of consumption, study of fabrics and the dies used to produce relief-patterned flue-tile (Betts *et al.* 1997), indicates that brick and tile could travel considerable distances (see also Betts and Foot 1994). Indeed, the sub-region is towards the edge of the distribution of tile stamped with distinctive dies produced in the south-eastern counties of Surrey, Sussex and Kent. However, whereas we can assume major tileries were established to serve the major towns like Silchester and Winchester, and possibly also for each of the ‘small’ towns,

we know very little about them, never mind their impact with and beyond the major centres. To address this, there needs to be systematic characterisation and comparison of assemblages from different centres and analysis of change over time. It has been suggested, for example, that the production of brick and tile significantly declined in the later Roman period.

Stone exploitation

If production of brick and tile was not exclusive to the sub-region, the exploitation of certain other resources used in building was more regionally focused. Stone slate of limestone slabs, either from the Purbeck beds, just outside the region in south-east Dorset, or from Oxfordshire Jurassic sources such as around Stonesfield, was used for roofing, typically in the 3rd and 4th centuries. Researching the relative importance within the sub-region of these two sources would make a significant contribution to our knowledge of the development of regional traditions in the building industry through the Roman period. Remoter sources of roofing slate, such as from the Forest of Dean, Gloucestershire, also make a significant contribution to the sub-region, as at Silchester (e.g. Shaffrey in Fulford *et al.* 2006, 337-8). But how widespread in the sub-region was the consumption of this relatively exotic material?

Freestone from the Jurassic limestone quarries of Bath and the Cotswolds, including in Oxfordshire, was also used in the sub-region for building and other specialist purposes, but the dominant lithology of the sub-region was, undoubtedly, flint quarried from the chalk and used in all the counties on the sub-region. In both cases important work needs to be undertaken to characterise the extent of the use of these materials, particularly in locations away from the source areas. Freestone, like roller-stamp-decorated flue-tile, could travel long distances to be used for architectural or funerary purposes, but, as with ceramic building material, the bulk use of these materials at a distance from the likely source area, needs to be investigated.

The material requirements to produce querns and millstones were very different to those needed for roofing slate. In the south of the sub-region a major source of querns in the late Iron Age and early Roman period was Lodsworth, West Sussex (Peacock 1987). Other sources, including of Upper and Lower Greensand, were exploited in the sub-region but have not been researched. In addition, and from outside the sub-region, Old Red Sandstone from the west of England, Millstone Grit from the north and Niedermendig lava imported from Germany, were also used, but only the first has received serious study (Shaffrey 2006). Alongside the provenancing of materials, consideration also needs to be given to change over time. Watermills are certainly evidenced in the sub-region in the later Roman period (Booth *et al.* 2007, 298-9; Cunliffe 2001), but the extent of the use of this technology and other mechanised forms of milling demands further research.

Iron making

Several county contributions also mention iron-making as well as iron-working at a variety of site types. Though we are accustomed to thinking that the major sources of iron in the Roman period, such as the Weald, the Forest of Dean and Northamptonshire, accounted for consumption in the south of Britain, there is increasing evidence for further, localised manufacture of bloomery iron in both urban

(e.g. Silchester; J Allen in Fulford *et al.* 2006, 160-3) and rural contexts. The slag masses point to the continuation of traditional techniques using bowl-shaped hearths alongside shaft furnaces. The extent to which the making of iron, as opposed to that of iron artefacts, existed through the settlement hierarchy of the sub-region requires urgent investigation, as does the extent to which local sources provided the ore.

Food production

There is an increasing body of evidence for malting and corn drying on a large scale. At Weedon Hill, Buckinghamshire an unusually complete malting has been excavated and there was also evidence for barley malting associated with corn driers at Bancroft Villa, Milton Keynes. There are also sites with multiple corn driers (Yewden Vila, Buckinghamshire for example). This larger scale production may have been linked to supplying a particular market and it is also possible that 'state farm' and/or 'Imperial Estates' were in operation within the region.

Later Roman

Although there is considerable continuity of settlement between the late 1st/early 2nd century AD and, in some cases certainly, the early 5th century, it is important to consider certain developments which are peculiar to the 3rd – 5th century. The most obvious of these is the provision of new coastal forts in east and south-east Britain. In the case of Solent-Thames, the construction of the fort at Portchester, at the head of Portsmouth Harbour on the Hampshire coast, in the late 3rd century (Cunliffe 1975). Although its identification with Portus Adurni, one of the forts listed in the late 4th century *Notitia Dignitatum*, is uncertain, it does appear to be a military establishment in origin, even if it did not continue to be garrisoned continuously thereafter. Indeed distinguishing between civil and military occupation in general in the 4th century remains difficult. The construction of a new fort at Portchester may be linked programmatically with the building of defences around the existing settlement at Clausentum (see above) and there is the still unresolved question of late Roman fortification of Carisbrooke Castle on the Isle of Wight (see above). While not far from the head waters of the tidal River Medina, the location of the fortification is more central to the Island than close to the coast. Portchester seems to be the only completely 'new' foundation, but little is known of its immediate context and impact on surrounding settlement. The, as yet unlocated, cemetery would have enormous potential in advancing our understanding of the inhabitants of this site and change over time.

The question whether or not there is a Roman phase at Carisbrooke reminds us, that while there is some knowledge of the mid and late Roman fortification of the larger towns of Silchester (Fulford 1984) and Winchester, and of some of the smaller, such as Alchester (Young 1975), Dorchester-on-Thames (Hogg and Stevens 1937; Frere 1962), and *Magiovinium* on Watling Street, little is otherwise known of the defence of *mansiones* and other stations along the major roads of the sub-region, never mind their character and function in the late Roman period. The evidence from Neatham, Hampshire is important here, providing not only evidence of the nature of occupation from the early 2nd century onwards, but also of defence, in this case apparently short-lived and confined to the 3rd century (Millett and Graham 1986). The extent to which stations along the roads were defended, as they were, for example, along Watling

Street, has considerable implications for understanding the strategic organisation of the south of Britain in the 4th century.

There has become increasing interest in the subject of identity and social mobility in Roman Britain and late Roman cemeteries are, potentially, a critically important resource. With inhumation burial the predominant rite in late Roman Britain, the potential for analysing assemblages of grave goods in association with individuals for whom there is information on age and sex is very great. This has been demonstrated in relation to the Lankhills, Winchester, cemetery, where incomers from the upper Danube region have been postulated on the basis of distinctive groups of grave goods. While burials with accompanying grave goods are, perhaps, the exception in southern Britain in the 4th century, techniques of analysis of the bone and teeth alone can also be of assistance in identifying individuals or groups differentiated by diet or by probable region of origin. Indeed these techniques are important resources for testing hypotheses based, as is the case with Lankhills, principally on the analysis of associated material culture and its disposition within the grave. Isotope analysis from Lankhills suggests a site with a strong military/official component and a diverse population, which may not be typical.

Roman to Anglo-Saxon Transition

The period of the 5th to 7th century continues to remain very challenging for southern Britain in general, as much as for Solent-Thames in particular. With the demise of the widespread introduction of new coin into circulation after the first years of the 5th century and of the production of mass-produced manufactured goods, notably pottery, there is almost no material culture to be associated with the 5th to 7th centuries, other than Anglo-Saxon grave goods. On the other hand, there is no evidence for rapid loss of population through noticeable increases in burial beyond the end of the 4th century. The assumption is that population levels remained unchanged, but essentially invisible, but more data is needed to confirm or refute this. Only large-scale excavation in both rural and urban contexts, settlement and cemetery, has the potential of showing change beyond the beginning of the 5th century, when sequences can be established either through horizontal or vertical stratigraphy that extend beyond the end of the 4th/beginning of the 5th and contexts associated with the latest material culture, among which the closely dated coins of the House of Theodosius are among the most helpful. In the absence of datable material culture, testing of postulated post-400 chronologies must rely more on radiocarbon dating. This is not to suggest that we can expect close dating within this time span of two to three centuries, rather a greater or lesser probability of a date belonging before or after the beginning of the fifth century. The application of radiocarbon dating should become routine in the appropriate (Roman to Saxon) context.

With Dorchester on Thames and Winchester the sub-region is distinguished in having two urban centres, one a 'small' Roman town, the other a civitas capital, which play a prominent role in the emergence of Anglo-Saxon Wessex in the seventh century. While our knowledge of the 5th to the 7th centuries in these two centres is still limited, it is clear that both, with their immediate rural hinterlands, have much to contribute to our understanding of the transition from Roman to Saxon. At the same time there is much to learn from the negative – from those urban settlements and their hinterlands, both major and minor, such as Silchester and Alchester, which do not re-emerge as

significant centres in Anglo-Saxon England. What determines continuity or not; and what does continuity mean? Did Christianity have an ongoing role? What happened to Roman period magistrates?

Bibliography

- Allen, M.J. 1996. Landscape and landuse: priorities in Hampshire 500,000 BC to AD 1500. In D. Hinton & M. Hughes (eds), *Archaeology in Hampshire: a framework for the future* 55-70. Winchester: Hampshire County Council, 55-70
- Allen, M.J., 2008a. Some thoughts on fields and field systems in the wider landscape, in Cunliffe, B.W., [New Danebury Landscape Volume Series, vol 1], pp 50-53
- Allen, T G, 1991 An 'oppidum' at Abingdon, Oxfordshire, *South Midlands Archaeol* **21**, 97-9.
- Allen, T, 2000 The Iron Age background, in M Henig and P Booth, *Roman Oxfordshire*, 1-33.
- Baldwin, R, 1985 Intrusive burial groups in the late Roman cemetery at Lankhills, Winchester - a reassessment of the evidence, *Oxford J Archaeol* **4** (1), 93-104.
- Bean, S C, 2000 *The coinage of the Atrebates and Regni* Oxford University School of Archaeology Monograph **50**
- BELLAMY, P.S. (1991) The Investigation of the Prehistoric Landscape along the Route of the A303 Road Improvement between Andover, Hampshire and Amesbury, Wiltshire, 1984-1987, *Proc.Hants.Field Club* **47** (5-81).
- Betts, I, Black, E W and Gower, J, 1997 *A corpus of relief-patterned tiles in Roman Britain*, *J Roman Pottery Stud* **7** (for 1994)
- Betts, I M and Foot, R, 1994 A newly-identified late Roman tile group from Southern England, *Britannia* **25**, 21-34
- Biddle, M and Kjølbye-Biddle, B, 2007 Winchester: from *Venta* to *Witancaestir*, in L Gilmour (ed.), *Pagans and Christians - from antiquity to the middle ages; Papers in Honour of Martin Henig, presented on the occasion of his 65th birthday*, *Brit Archaeol Rep Int Ser* **1610**, Oxford, 189-214
- Blair, J, 1994 *Anglo-Saxon Oxfordshire*, Stroud.
- BOON, G.C. (1974) *Silchester; the Roman Town of Calleva*. Newton Abbot/London.
- Booth, P, 1997 *Asthall, Oxfordshire, excavations in a Roman 'small town', 1992*, Oxford Archaeol Unit Thames Valley Landscapes Monograph No **9**, Oxford.
- Booth, P, Dodd, A, Robinson, M, and Smith, A, 2007 *The Thames through time; the archaeology of the gravel terraces of the Upper and Middle Thames. The early*

historical period: Britons, Romans and the Anglo-Saxons in the Thames Valley AD 1-1000, Oxford Archaeol/English Heritage.

Booth, P, Evans, J, and Hiller, J, 2001 *Excavations in the extramural settlement of Roman Alchester, Oxfordshire, 1991*, Oxford Archaeol Mono **1**, Oxford.

Boyle, A, and Chambers, R A, (2007) The Romano-British cemetery, in R A Chambers and E Macadam, *Excavations at Barrow Hills, Radley, Oxfordshire. Volume II: the Romano-British cemetery and Anglo-Saxon settlement*, Oxford Archaeol Thames Valley Landscapes Monograph.

Branigan, K, 1971 *Latimer: A Belgic, Roman, Dark Age and early modern farm*. Chess Valley Archaeol. & Hist. Soc, privately published.

Brodribb, A C C, Hands, A R, and Walker, D R, 1968 *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part I: sites A & D*, Oxford.

Brodribb, A C C, Hands, A R, and Walker, D R, 1971 *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part II: Sites B and H*, Oxford.

Brodribb, A C C, Hands, A R, and Walker, D R, 1972 *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part III: Site F*, Oxford.

Brodribb, A C C, Hands, A R, and Walker, D R, 1973 *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part IV: Site C*, Oxford.

Brodribb, A C C, Hands, A R, and Walker, D R, 1978 *Excavations at Shakenoak Farm, near Wilcote, Oxfordshire, Part V: Sites K and E*, Oxford.

Burnett, A M, 1990 Celtic coinage in Britain III: the Waltham St Lawrence treasure trove, *British Numismatic Journal* **60**, 13-28.

Burnham, B C, and Wachter, J S, 1990 *The 'small towns' of Roman Britain*, London.

Chambers, R A, 1987 The late- and sub-Roman cemetery at Queenford Farm, Dorchester-on-Thames, Oxon., *Oxoniensia* **52**, 35-69.

Clarke, G. (1979) Pre-Roman and Roman Winchester: *Part 2: The Roman Cemetery at Lankhills*. Oxford.

Copeland, T, 1988 The North Oxfordshire Grim's Ditch: a fieldwork survey, *Oxoniensia* **53**, 277-292.

COTTON, M.A. and GATHERCOLE, P.W. (1958) *Excavations at Clausentum, Southampton, 1951-4*. London. Ministry of Works Archaeological Reports **2**.

CRAWFORD, O.G.S. (1951) 'Some Notes on Avington'. *Proc.Hants Field Club* **17** (107-11).

- Cromarty, A M, Barclay, A, Lambrick, G, and Robinson, M, 2006 *Late Bronze Age ritual and habitation on a Thames eyot at Whitecross Farm, Wallingford: The archaeology of the Wallingford Bypass, 1986-92*, Oxford Archaeol Thames Valley Landscapes Mono No **22**, Oxford.
- Crummy, N, and Eckardt, H, 2003 Regional identities and technologies of self: nail-cleaners in Roman Britain, *Archaeol J* **160**, 44-69.
- CUNLIFFE, B.W. (1975) *Excavations at Portchester Castle*. Vol. 1: Roman. Res. Rep. Comm. Soc. Antiq. London **32** London.
- CUNLIFFE, B.W. (1987) *Hengistbury Head, Dorset. Vol I: The Prehistoric and Roman Settlement 3500BC – AD 500*. Oxford. Ox.UnivComm.Arch.Mono. **26**.
- CUNLIFFE, B.W. (1991) *Iron Age Communities in Britain*. (3rd ed.) London. Longman
- CUNLIFFE, B.W. (1993) *Wessex to AD 1000 : A Regional History of England*. London. Longman. (205-219).
- CUNLIFFE, B.W. (2001) *The Danebury Environs Project 5: Fullerton Villa Excavation, 2001*. Interim Report. Oxford. Danebury Trust/Institute of Archaeology.
- CUNLIFFE, B.W. and POOLE, C. (2000a) *Suddern Farm, Middle Wallop, Hants, 1991 and 1996*. Danebury Environs Programme, Vol. 2, Part 3. English Heritage and Oxford Univ. Comm. Archaeol. Mono. **49**. Oxford (69-127)
- CUNLIFFE, B.W. and POOLE, C. (2000b) *Houghton Down, Stockbridge, Hants, 1994*. Danebury Environs Programme. Vol. 2 Part 6. English Heritage/Oxford Univ.Comm.Archaeol. Mono. **49**. Oxford. (78-102)
- CUNLIFFE, B.W. and POOLE, C. (2000c) *Nettlebank Copse, Wherwell, Hants, 1993*. The Danebury Environs Programme. Vol. 2. Part 5. English Heritage/Ox.Univ.Comm.Archaeol. Oxford (53-83)
- CUNLIFFE, B.W. and POOLE, C. (2000d) *Bury Hill, Upper Clatford, Hants, 1990*. Danebury Environs Programme. Vol. 2 Part 2. English Heritage/Oxford Univ.Comm.Arch. Mono. **49**.
- DAVIES, S.M. (1981) 'Excavations at Old Down Farm, Andover: Part II: Prehistoric and Roman'. Proc.Hants Field Club **37** (81-163)
- DOWNEY, R., KING, A., and SOFFE, G. (1979) *The Hayling Island Temple* London, Downey.
- Eckardt, H, 2002 *Illuminating Roman Britain*, Monographies Instrumentum **23**, Éditions Monique Mergoïl, Montagnac.

- EVANS, J., STOODLEY, N., and CHENERY, C. (2006) 'A Strontium and Oxygen Isotope Assessment of a possible Fourth Century Immigrant Population in a Hampshire Cemetery, Southern England.' *Journal of Archaeological Science* **33** (265-72)
- FASHAM, P.J. (1983) 'Fieldwork in and around Micheldever Wood, Hampshire, 1973-1980'. *Proc.Hants Field Club* **39**. (5-45)
- FASHAM, P.J. (1985) *The Prehistoric Settlement at Winnall Down, Winchester. Hampshire Field Club Mono 2.* Winchester. (62-73)
- FASHAM, P.J. and WHINNEY, R.J.B. (1991) *Archaeology and the M3. Hants.Field Club Mono 7* Wessex Trust for Archaeology/Hants Field Club. Winchester
- FITZPATRICK, A.P. (2001) 'Cross-Channel Exchange, Hengistbury Head and the End of Hillforts' In: J. Collis (ed) *Society and Settlement in Iron Age Europe Actes du XVIIIe Colloque de l'AFEAF.* Winchester, April, 1994. Sheffield (83-97)
- FITZPATRICK, A.P. and TIMBY, J. (2002) 'Roman Pottery in Iron Age Britain'. In: A. Woodward and J.D. Hill (eds) *Prehistoric Britain; The Ceramic Basis.* PCRG Occ.Publ. **3** Oxbow. Oxford (161-172).
- Ford, S, 1987 *East Berkshire Archaeological Survey*
- Ford, S, Bowden, M, Mees G, and Gaffney, V, 1988 The date of the 'Celtic' Field-Systems on the Berkshire Downs, *Britannia* **19**, 401-404.
- FOX, G.E. and St JOHN HOPE, W.H. (1891-1906) *Excavations on the Site of the Roman City of Silchester, Hants, 1890-1905.* London. Society of Antiquaries (Fifteen volumes).
- Frere, S S, 1962 Excavations at Dorchester on Thames, 1962, *Archaeol J* **119**, 114-149
- Frere, S S, 1984 Excavations at Dorchester on Thames, 1963, *Archaeol J* **141**, 91-174.
- Frere, S, 1987 *Britannia a history of Roman Britain*, London (3rd ed.)
- FULFORD, M.G. (1975) *New Forest Roman Pottery: manufacture and distribution, with a corpus of pottery types.* Oxford. BAR Br.Ser. **17**.
- FULFORD, M.G. (1984) *Silchester Defences, 1974-80.* Britannia Mono. **5**. Gloucester.
- FULFORD, M.G., CLARKE, A. and ECKARDT, H. (2006) *Life and Labour in Late Roman Silchester: Excavations in Insula IX Since 1997.* London. Britannia Mono. **22**.
- Fulford, M G, and Hodder, I, 1974 A regression analysis of some later Romano-British pottery: a case study, *Oxoniensia* **39**, 26-33.

- FULFORD, M. G. and RIPPON, S.J. (1994) 'Lowbury Hill, Oxon: A Re-assessment of the Probable Romano-Celtic Temple and the Anglo-Saxon Barrow'. *Archaeol.Journ.* **151** (158-211)
- Gaffney, V and Tingle, M, 1989 *The Maddle Farm project: an integrated survey of Prehistoric and Roman landscapes on the Berkshire Downs*, British Archaeological Reports (British Series) **200**, Oxford
- Gosden, C, Lock, G, and Daly, P, 2005 University of Oxford The Ridgeway and Vale project: excavations at Marcham/Frilford 2004, *South Midlands Archaeol* **35**, 94-105.
- Grant, A. (1984) "Survival or sacrifice? A critical appraisal of animal burials in Britain in the Iron Age", in C. Grigson and J. Clutton-Brock (eds) *Animals and archaeology*. Vol. 4. Husbandry in Europe. BAR International Series 227. pp. 221-227.
- Hambleton, E. 1999. *Animal husbandry regimes in Iron Age Britain: a comparative study of faunal assemblages from Iron Age sites*. Oxford: British Archaeological Report 282
- Hambleton, E. Undated. Review of Middle Bronze Age –Iron Age faunal assemblages from southern Britain. Unpubl. report for English Heritage
- Hands, A R, 1993 *The Romano-British roadside settlement at Wilcote, Oxfordshire I. Excavations 1990-92*, Brit Archaeol Rep (Brit Ser) **232**, Oxford
- Hands, A R, 1998 *The Romano-British roadside settlement at Wilcote, Oxfordshire II. excavations 1993-96*, Brit Archaeol Rep (Brit Ser) **265**, Oxford.
- Hands, A R, and Cotswold Archaeology, 2004 *The Romano-British roadside settlement at Wilcote, Oxfordshire III. Excavations 1997-2000*, Brit Archaeol Rep (Brit Ser) **370**, Oxford.
- Harding D W 1987 *Excavations in Oxfordshire, 1964-66*, Univ Edinburgh Dept of Archaeol Occasional Paper **15**.
- Hawkes, C F C, 1927 Excavations at Alchester 1926, *Antiqs J*, **7**, 155-184.
- Henig, M, 1993 *Roman sculpture from the Cotswold Region with Devon and Cornwall*, Corpus Signorum Imperii Romani, Great Britain, Vol 1, Fascicule 7, Oxford.
- Henig, M, and Booth, P, 2000 *Roman Oxfordshire*, Alan Sutton, Stroud.
- HILL, J.D. (1995) *Ritual and Rubbish in the Iron Age of Wessex: a study on the formation of a specific archaeological record*. Oxford. BAR Br.Ser. **242**
- Hogg, A H A, and Stevens, C E, 1937 The defences of Roman Dorchester, *Oxoniensia* **2**, 41-73.

HOOD, S. and WALTON, H. (1948) 'A Romano-British Cremating Place and Burial Ground on Roden Downs, Compton, Berkshire.' *Trans.Newbury & Dist.Field Club* **9**(1) (1-62)

Hunn, A, Lawson, J, and Parkhouse, J, 1997 Investigations at Magiovinium 1990-91: the Little Brickhill and Fenny Stratford by-passes, *Rec. Buckinghamshire* **37**, 3-66.

Ilfiffe, J H, 1929, Excavations at Alchester 1927, *Antiq J* **9**, 105-36

Ilfiffe, J H, 1932, Excavations at Alchester 1928, *Antiq J* **12**, 35-67

JOHNSON, S. (1979) *The Roman Forts of the Saxon Shore* (2nd ed.) London. Paul Elek

Jones, R L C, 2003 *Whittlewood Project: Fieldwalking 2002 - The Pottery Part 1*, unpublished report.

KING, A.C., and SOFFE, G. (1998) 'Internal Organisation and Deposition at the Iron Age Temple on Hayling Island'. *Proc.Hants Field Club* **53** (35-48)

Lobb, S J & Rose, P G, 1996 *Archaeological Survey of the Lower Kennet Valley, Berkshire*

Lock, G, and Gosden, C, 2004 The Ridgeway and Vale project: excavations at Marcham/Frilford 2003 - interim report, *South Midlands Archaeol* **34**, 84-94.

Lock, G, Gosden, C, Griffiths, D, and Daly, P, 2003 Hillforts of the Ridgeway project: excavations at Marcham/Frilford 2002, *South Midlands Archaeol* **33**, 84-91.

Lyne, M A B, 1994 *Late Roman Handmade Wares in South-East Britain*, Unpubl PhD thesis University of Reading

Lyne, M A B, Forthcoming F The Iron Age and Roman pottery, in Fennelly, L R, Tomalin, D J, Loader, R D, *Coastal archaeology in a dynamic setting: a Solent case study*

Lyne, M A B, Forthcoming G The Combley Farm Hoard, in Fennelly, L R, Tomalin, D J, Loader, R D, *Coastal archaeology in a dynamic setting: a Solent case study*

Lyne, M A B, Forthcoming H The Iron Age and Roman coins from Fishbourne Beach, in Fennelly, L R, Tomalin, D J, Loader, R D, *Coastal archaeology in a dynamic setting: a Solent case study*

LYNE, M.A.B. and JEFFERIES, R.S. (1979) *The Alice Holt/Farnham Roman Pottery Industry*. London. CBA Res.Rep. **30**

Maltby M. 1985. Assessing variations in Iron Age and Roman butchery practices: the need for

- quantification. In N.R.J Fieller, D.D. Gilbertson & N.G.A. Ralph (eds),
Palaeobiological Investigations: Research Design, Methods and Data Analysis 19-30. Oxford: British
 Archaeological
 Report S266
- Maltby, M. 1989. Urban-rural variations in the butchering of cattle in the Romano-
 British Hampshire.
 In D. Serjeantson & T. Waldron (eds), *Diet and Crafts in Towns: the evidence from
 animal remains
 from the Roman to Post-medieval Periods*, 75-106. Oxford: British Archaeological
 Report 199
- Maltby M. 2002. Animal bones in archaeology: how archaeozoologists can make a
 greater contribution
 to British Iron Age and Romano-British archaeology. In K. Dobney & T. O'Connor
 (eds), *Bones and
 the Man: studies in honour of Don Brothwell*, 88-94. Oxford: Oxbow Books
- Miles, D, 1986 (ed) *Archaeology at Barton Court Farm, Abingdon, Oxon: an
 investigation of late Neolithic, Iron Age, Romano-British and Saxon settlements*, Counc
 Brit Archaeol Res Rep **50**, London.
- MILLETT, M. (1986) 'An Early Roman Cemetery at Alton, Hampshire'. *Proc.Hants
 Field Club* **42** (43-87)
- MILLETT, M. (1987) 'An Early Roman Burial Tradition in Central Southern England'.
Oxford Journ.Archaeol. **6** (63-8).
- MILLETT, M. and GRAHAM, D. (1986) *Excavations on the Romano-British Small
 Town of Neatham, Hants. 1969-1979*. Hants Field Club and Farnham District
 Museum Society.
- Mynard, D C (ed), 1987 *Roman Milton Keynes*, Buckinghamshire Archaeol. Soc.
 Monog. Ser. **1**, Aylesbury.
- Nayling, N and McGrail, S, 2004 *Barlands Farm Romano-Celtic boat*, Counc Brit
 Archaeol Res Rep **138**, York.
- Neal, D S, 1987 Excavations at Magiovinium, Buckinghamshire, 1978-80, *Rec.
 Buckinghamshire* **29**, 1-124.
- NORTHAMPTONSHIRE ARCHAEOLOGY (2001) *Excavation of an Iron Age
 Enclosure at Kennel Farm, Basingstoke, Hampshire*. Northamptonshire Archaeology
 Report.
- NORTHAMPTONSHIRE ARCHAEOLOGY (2002) *Excavation of an Iron Age and
 Romano-British Enclosure at Kennel Farm, Basingstoke, Hampshire, 1998*.
 Northamptonshire Archaeology Report.

OLIVER, M. (1992) 'Excavation of an Iron Age and Romano-British Settlement Site at Oakridge, Basingstoke, Hampshire, 1965-6. *Proc.Hants Field Club* **48**. (55-93)

OLIVER, M. and APPLIN, B. (1979) 'Excavation of an Iron Age and Romano-British Settlement at Rucstalls Hill, Basingstoke, Hampshire, 1972-5'. *Proc. Hants Field Club* **35**. (41-92)

PEACOCK, D.P.S. (1987) 'Iron Age and Roman Quern Production at Lodsworth, West Sussex' *Antiq.Journ.* **67** (i) (61-85)

Pearson, E, & Robinson, M. 1994. Environmental evidence from the villa. In R.J. Williams & R.J. Zeepvat, *Bancroft: a late Bronze Age/Early Iron Age settlement, Roman villa and temple-mausoleum* (2 vols), 565-583. Aylesbury: Buckinghamshire Archaeological Society Monograph Series 7

Poulton, R and Scott, E, 1993 The hoarding, deposition and use of pewter in Roman Britain, in E Scott (ed.) *Theoretical Roman Archaeology: First Conference Proceedings*, Aldershot, 115-132.

QUALMANN, K.E., REES, H. , SCOBIE, G.D. and WHINNEY, R. (2004) *Oram's Arbour: The Iron Age Enclosure at Winchester: Vol. 1: Investigations 1950-1999*. Winchester. Winchester Museums Service.

Rigold,S E, 1969 Recent investigations into the earliest defences of Carisbrooke Castle, Isle of Wight, *Chateau Gaillard* **3**, 128-138

Roberts, M R, 1995 Excavations at Park Farm, Binfield, Berkshire, 1990, in I Barnes, W A Boismier, R M J Cleal, A P Fitzpatrick and M R Roberts, *Early settlement in Berkshire*, Wessex Archaeology Report No **6**, Salisbury, 93-132

Sauer, E, 2000 Alchester, a Claudian 'Vexillation Fortress' near the western boundary of the Catuvellauni: new light on the Roman invasion of Britain, *Archaeol J* **157**, 1-78.

Sauer, E W, 2005 Inscriptions from Alchester: Vespasian's base of the Second Augustan Legion(?), *Britannia* **36**, 101-133.

Shaffrey, R, 2006 *Grinding and milling A study of Romano-British rotary querns and millstones made from Old Red Sandstone*, *Brit Archaeol Rep (Brit Ser)* **409**, Oxford.

Sherratt, A. 1981. Plough and Pastoralism: aspects of the secondary products revolution. In: I. Hodder, G. Isaac & N. Hammond (eds.), *Pattern of the Past: studies in honour of David Clark*, 261-305. Cambridge: Cambridge University Press. Reprinted in: A. Sherratt 1997, *Economy and Society in Prehistoric Europe: changing perspectives*. Edinburgh: Edinburgh University Press

- Spickernell, W., 1859 *The Roman Villa, Carisbrooke, Isle of Wight; with Ground Plan*, Kentfield, Newport
- Stevens C.J. 2003. An investigation of consumption and production models for prehistoric and Roman Britain. *Environmental Archaeology* 8, 61-67
- STEVENS, S. (2004) *An Archaeological Evaluation of Land at East Anton Manor Farm, East Anton, Andover, Hampshire*. Archaeology South East Report: Project No. 1760.
- Tingle, M., 1991 The Vale of the White Horse survey, Brit Archaeol Rep (Brit Ser) **218**, Oxford.
- Tomalin, D., 1987 *Roman Wight. A Guide Catalogue to "The Island of Vectis, very near to Britannia"*, Newport
- Tomlin, R S O, 1996 A five-acre wood in Roman Kent, in J Bird, M Hassall and H Sheldon (eds), *Interpreting Roman London: papers in memory of Hugh Chapman*, Oxbow Monograph **58**, 209-215.
- Trott, K., 1999. A Rescue Excavation at the Brading Roman Villa Coach Park, Isle of Wight. *Proceedings of the Hampshire Field Club & Archaeological Society* 54, 189-215
- TVAS, 1997 *Excavation of Iron Age and early Roman Features at Viking Way, Andover, Hampshire*,
- van der Veen, M. 1991. Charred grain assemblages from the Roman-Period corndriers in Britain. *Archaeological Journal* 146, 302-329
- van der Veen, M. & O'Connor, T.P. 1998. The expansion of agricultural production in late Iron Age and Roman Britain, in J. Bayley (ed.), *Science in Archaeology, an agenda for the future*, 127-144. London: English Heritage
1996, Thames Valley Archaeol Services Archaeol Rep, unpublished, Reading.
- WESSEX ARCHAEOLOGY (1990) *Area W, Brighton Hill South, Basingstoke, Hampshire*. Salisbury. Trust for Wessex Archaeology Rep.
- WESSEX ARCHAEOLOGY (1996) *Land Adjoining the Former Rookdown Hospital, Basingstoke, Hampshire: Excavations Undertaken in 1989 and 1995*. Wessex Arch. Project 33077. Salisbury.
- Williams, R J, and Zeepvat, R J, 1994 *Bancroft: a late Bronze Age/Early Iron Age settlement, Roman villa and temple-mausoleum* (2 vols), Buckinghamshire Archaeol. Soc. Monog. Ser. **7**, Aylesbury.

- Woodfield, C, 1977 A Roman military site at Magiovinium? *Rec. Buckinghamshire* **20.3**, 384-99.
- Yeoman, P.A. & Stewart, I.J. 1992. A Romano-British villa estate at Mantles Green, Amersham, Buckinghamshire. *Records of Buckinghamshire* 34, 107-182
- Young, C J, 1975 The defences of Roman Alchester, *Oxoniensia* **60**, 136-170.
- Young, C J, 1977 *The Roman pottery industry of the Oxford region*, Brit Archaeol Rep (Brit Ser) **43**, Oxford.
- Young, C J, 2000 *Excavations at Carisbrooke Castle Isle of Wight, 1921-1996*, Wessex Archaeology **18**
- Zeepvat, R J, 1988 Another Roman building at Wymbush? *Rec. Buckinghamshire* **30**, 111-16.