The Roman Period

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Resource Assessment

1. Introduction

The South-East is particularly rich in terms of Roman archaeology. It has benefited from sustained and substantial investigation, particularly in the decades since the introduction of PPG16 in 1990. A survey of Romano-British agriculture and industry in Kent, Surrey, Sussex (East and West) has recently been published (Bird 2017a). This volume provides an up-to-date synthesis of the region, with overview chapters covering the four counties as well as more specific themes such as farming, crafts and metalworking. This book is complemented by a chapter on the settlement archaeology of southern England in Volume One of the New Visions of the Countryside of Roman Britain series (Allen 2016). This chapter draws upon the wide range of excavated data from both published and unpublished 'grey literature', primarily from developer-funded work, to examine patterns of rural settlement, architecture and land-use. Previous overviews of Kent include work by Booth (2011) and Millett (2007), Surrey by Bird (2004; 2006), and Sussex by Russell (2006), Rudling (2003) and Cunliffe (1973). West Sussex has also been partly covered by a research framework concerning the Fishbourne/Chichester area (Manley 2008).

The Roman archaeology of the South-East now consists of a substantial body of data which is expanding every year. As these previous syntheses show, it is largely impossible to do justice to this dataset within a single paper with limited space. This work should be considered a summary of the available evidence that can be used as part of the overall resource assessment and research agenda to inform future project work and research.

2. The Iron Age/Romano-British transition

The South-East was part of the Roman world at least from the time of Caesar's two forays in 55 and 54 BC (Champion 2007, 131; Creighton 2006, 161). Certainly, the island, its peoples and products were mentioned by central Mediterranean authors of this time (e.g. Strabo, Geography IV.5 and Diodorus Siculus, Library of History V.21). Mediterranean products were being imported via Gaul in the 1st century BC, and were perhaps managed through places like Fishbourne, as suggested by remains relating to elite activities of this date (Manley and Rudkin 2005a). Equally, there is a growing body of evidence of increased trade and settlement activity in the late 1st century BC/early 1st century AD in east Kent (Champion 2007, 116 and 123), perhaps most notably by discoveries of later Iron Age remains found during excavations at the East Kent Access Road on the Isle of Thanet (Andrews *et al.* 2015). This location is also directly relevant to the University of Leicester's 'In the Footsteps of Caesar:

The Archaeology of the First Roman Invasions of Britain' project (see Current Archaeology 2018).

Current scholarship is divided on the location of the invasion landings in AD 43. Traditionally, the invasion fleet is thought to have landed in east Kent, close to where Caesar's forces landed about 100 years earlier and the army is thought to have made its way up to a crossing over the Thames after a bloody battle at the River Medway (Frere and Fulford 2001). Excavation of ditches and ovens to the west of the Medway at Dartford, Kent, have been suggested to be the site of an early marching camp (Simmonds *et al.* 2011, 194-5). However, several scholars have argued for a different version of events and have suggested that part, if not all, of the invading army arrived in the Solent on the south coast (D Bird 2002; Hind 1989; Sauer 2002). This version of events is also implicitly supported by Walton's regional coin analyses which suggest the possibility of a significant Roman military presence on the south coast (Walton 2012, 62-63). Unfortunately, there is still no convincing evidence for Roman fortifications of this period in the South-East. The date and function of the 1st century AD ditches at Richborough is open to question (Manley 2002, 93-100), and the possible fortlet at Reculver, Kent (Philp 2005, 98-102), may be neither military nor of Claudian date - the ditches are not characteristically military, none of the coins are pre-AD 54, and almost all the pottery is locally made (Philp 2005, Fig. 20 opp. 45 and 193; Reece 2005, 104; Bird 2005, 143). Equally, Creighton (2006, 54-61) has made a case against the presence of a Claudian military base at Fishbourne, West Sussex, citing the possibility that the granaries may even pre-date the conquest, while there is little evidence that Chichester, West Sussex, was a legionary base for Legio II Augusta, as was once thought (Down 1988, 6-16).

Nonetheless, it is widely accepted that a client kingdom was established in or soon after AD 43, perhaps including the whole of the south-east region (Fulford 2003, 96; cf. Creighton 2006, 31), with Togidubnus (or a predecessor) as *rex magnus* (Bogaers 1979). Royal centres may have been established with military help at Silchester, Hampshire, and Chichester (Wilson 2006, 20-29; Fulford 2003, 97-101), thus explaining the early rectangular buildings and military equipment, and perhaps Chichester's name (Noviomagus, 'new market'). Also emerging in the early Roman period, Richborough, Kent, has a pattern of Samian ware supply that closely matches that of Chichester (Dannell 2005). The settlement was initially more prosperous than Canterbury, Kent (Millett and Wilmott 2003, 185-7; cf. Fulford 2003, 97), and its role as an army 'supply base' has been questioned (Bird 1999, 333; Millett and Wilmott 2003, 186-7). Its amphitheatre may also be relevant in this regard, as Fulford suggests that the provision of amphitheatres to Silchester and Chichester may be connected to their early importance as political centres (2003, 102).

The client kingdom was probably absorbed into the Roman province by the end of the 1st century AD, possibly after the death of Togidubnus. In the 3rd century, the region was part of Britannia Superior and probably in Maxima Caesariensis in the 4th century, with a western boundary perhaps somewhere near that of our study area (Jones and Mattingly 1990, 143-8). None of the towns were ever recorded as having the status of *colonia* or *municipium*, and administration will have been managed through *civitates* following normal Roman practice. It is difficult to judge their degree of autonomy. Three *civitates* were probably created from the wider Atrebatic region: a core grouped around Silchester, the Belgae around Winchester, Hampshire, and the Regni or Regini (Rivet and Smith 1979, 445-6) around Chichester. Conversely, the Cantiaci seem to be an artificial grouping of several smaller units with a 'capital' at Canterbury, which appears to become more important (relative to Richborough) towards the end of the 1st century (Millett 2007, 156-7).

There is no agreement on the boundaries of the three south-eastern civitates. It is generally accepted that the Cantiaci were broadly in Kent and the Regni in Sussex, but some place the latter in Surrey as well, while others would prefer this to be Atrebatic territory (Bird 1987, 166). There are sufficient differences in the archaeological record north and south of the Weald before and during the Roman period to suggest that the second option is more likely. The relatively large area chosen for the Cantiaci is curious, in view of clear evidence for substantial differences between east and west, pre- and post-conquest (Champion 2007, 117; 124; 127; Pollard 1988, 198-200), so marked that it has been suggested that it was recognised in some way with an enhanced role for Rochester, Kent (Detsicas 1983, 10 and 59). In either case, the western boundary of the Cantiaci is a matter for conjecture, perhaps being as far west as the Mole/Eden watershed (Bird 2004, 29-31).

It is sometimes suggested that the central Weald was an imperial estate, based on the lack of settlement and the evidence for the involvement of the *Classis Britannica* in ironworking (e.g. Cleere and Crossley 1985, 66-9). The latter was, however, almost certainly restricted to a relatively small area, and the lack of settlement probably has a geographical explanation. A possible administrative link between the roadside settlement at Westhawk Farm, Kent, and the iron-producing sites to its south-west has been suggested (Booth *et al.* 2008, 390). Unfortunately, limited archaeological investigation due to restricted commercial development in this part of the region and modern land-use may mask the genuine pattern for this area (Allen 2016, 77-8). However, recent work at Wickhurst Green has provided evidence for continuity in land-use over the Iron Age/Romano-British transition with an apparent hiatus occurring in the 2nd and 3rd centuries AD (Margetts 2018a). Further work such as this would be very beneficial for our understanding of the Weald in the Roman period (see also Margetts 2018b).

3. Roads and transportation

Properly engineered main roads were introduced in the Roman period, perhaps at first for the client kingdom. They had a well-made base, often of large flints, probably side ditches for demarcation and drainage, and surfaces of gravel or other materials, although there are few modern excavations confirming these details in all instances. The basic alignments of the road network are reasonably well-known thanks to the work of I D Margary (1965), but there are a number of issues with these. Firstly, there are 'missing' roads, such as a supposed London–Winchester route. Secondly, the actual routes for much of the network have not been confirmed through survey or excavation. Recent geophysical survey in West Sussex has demonstrated significant variation from some of the proposed Margary routes (Staveley forthcoming).

Most of the region's roads focused on London or Canterbury but some extended across the region, such as the so-called Sussex Greensand Way. A number crossed and opened up the Weald, with those to the east likely to have been linked to the iron industry, as suggested by the stretches with iron slag surfacing (e.g. Cleere 1978, 59). Important bridges are implied by the place-names Durobrivae (Rochester) and Pontibus (Staines, Surrey) (Rivet and Smith 1979, 346-7, 441). The Bellicus document is of interest for the implied legal status of local ('vicinal') roads (Tomlin 1996, 214). Evidence for vehicles is poor though all kinds of wagons were probably pulled by pack animals. A range of carts were probably used, while an elaborate linchpin from Chelsham, Surrey, implies the presence of high-status coaches (Bird 1997).

Trackways are less archaeologically visible than the major roads but there must have been a considerable number of local routes. Aerial photography has identified trackways extending across the chalk of the South Downs, usually connecting Roman-period field-systems (e.g. Rudling 2017, 95, Fig. 5.3). Excavations are revealing an increasing number of ditched trackways associated with farming complexes, and notable examples have been discovered at Hengrove Farm, Surrey (Poulton *et al.* 2017) and North Bersted, West Sussex (Taylor *et al.* 2014). The increasing need to supply urban centres, particularly London, with livestock is likely to have seen the creation and use of droveways such as those seen in the Middle Thames Valley, just to the north of the study region at Heathrow Terminal 5 and Imperial College Sports Ground, Harlington, Greater London (Allen 2016, 133, Fig. 4.71).

It is likely that roads and trackways were more important for transport than the region's rivers, which are rarely suitable for navigation except in their lower courses, especially when linked to coastal transport (though see below concerning villas in Kent). The Medway was no doubt used for the movement

of Kentish Ragstone, as attested by the Blackfriars ship, and the distribution of pottery made in north Kent suggests shipping from this area (Millett 2007, 167-8). Other traces of maritime transportation from the region include the Dover pharos and the Pudding Pan wreck (Walsh 2017). Several likely ports are known. Many were probably used locally, but some would have had wider links, such as Richborough, Dover (if not mostly military) and probably the Rochester area. Some form of ferry service possibly existed across the Wantsum Channel to the Isle of Thanet, as a number of Roman roads run down to the channel.

4. Settlement

The expansion of developer-funded archaeology over the past 25 years has seen a massive increase in the scale of excavation in the region. This is exemplified by major infrastructure projects such as High Speed 1 (Booth 2011) and the East Kent Access Road (Andrews *et al.* 2015). These have revealed a wide range of sites and allow for an examination of changing settlement patterns over time. The increase in commercial work has contributed more excavated sites to the archaeological record than was known up to 1990 (Allen 2016). One area that has benefitted has been in the countryside, as elements of the landscape that were previously poorly understood, such as farmsteads, field systems and trackways, are now fairly numerous. This sea change has helped to redress the balance in Romano-British studies from discourse previously dominated by villas, towns and military sites.

Despite the increasing dataset, the evidence base remains uneven in terms of its geographic distribution. The known settlements are mainly concentrated around the periphery of the region, along the north Kent plain, North Downs, South Downs and the Sussex coastal plain (ibid., 79, Fig. 4.4). The Weald is comparatively poorly represented, a reflection of the relative lack of commercial development in this area and the fact that the Wealden clays are comparatively poor for arable farming. This area is known primarily for its iron-working sites and there is little evidence of domestic habitation; it seems likely that Wealden settlements may have focussed on pastoral farming, woodland management and hunting, rather than arable farming, which may mean that sites are more difficult to identify (ibid., 78). There also appears to be a genuine paucity of Roman settlements in the hinterland south of Londinium. This is in spite of considerable modern urban expansion and archaeological

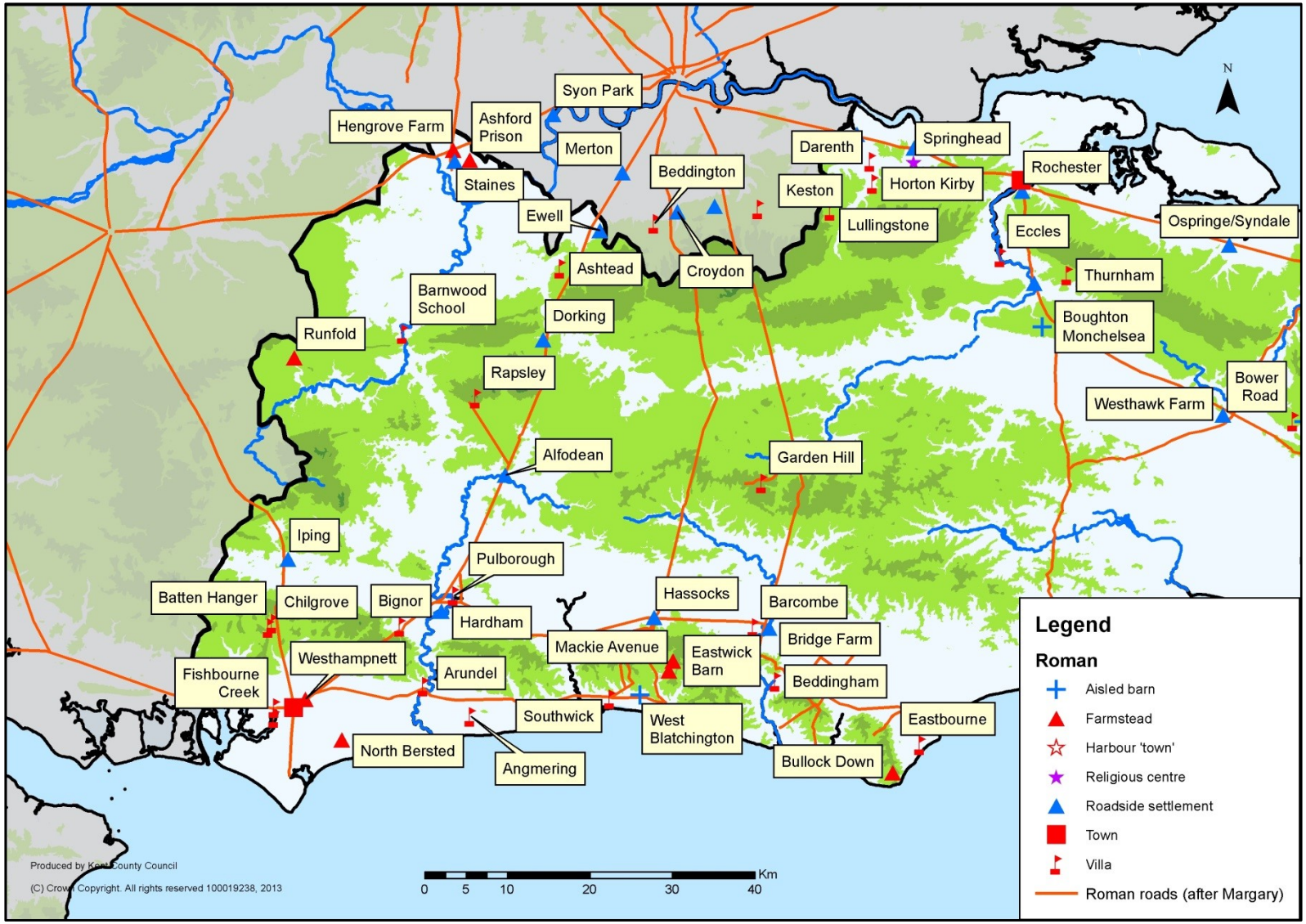

Figure 1 Map showing the location of settlement sites considered in the text (west)

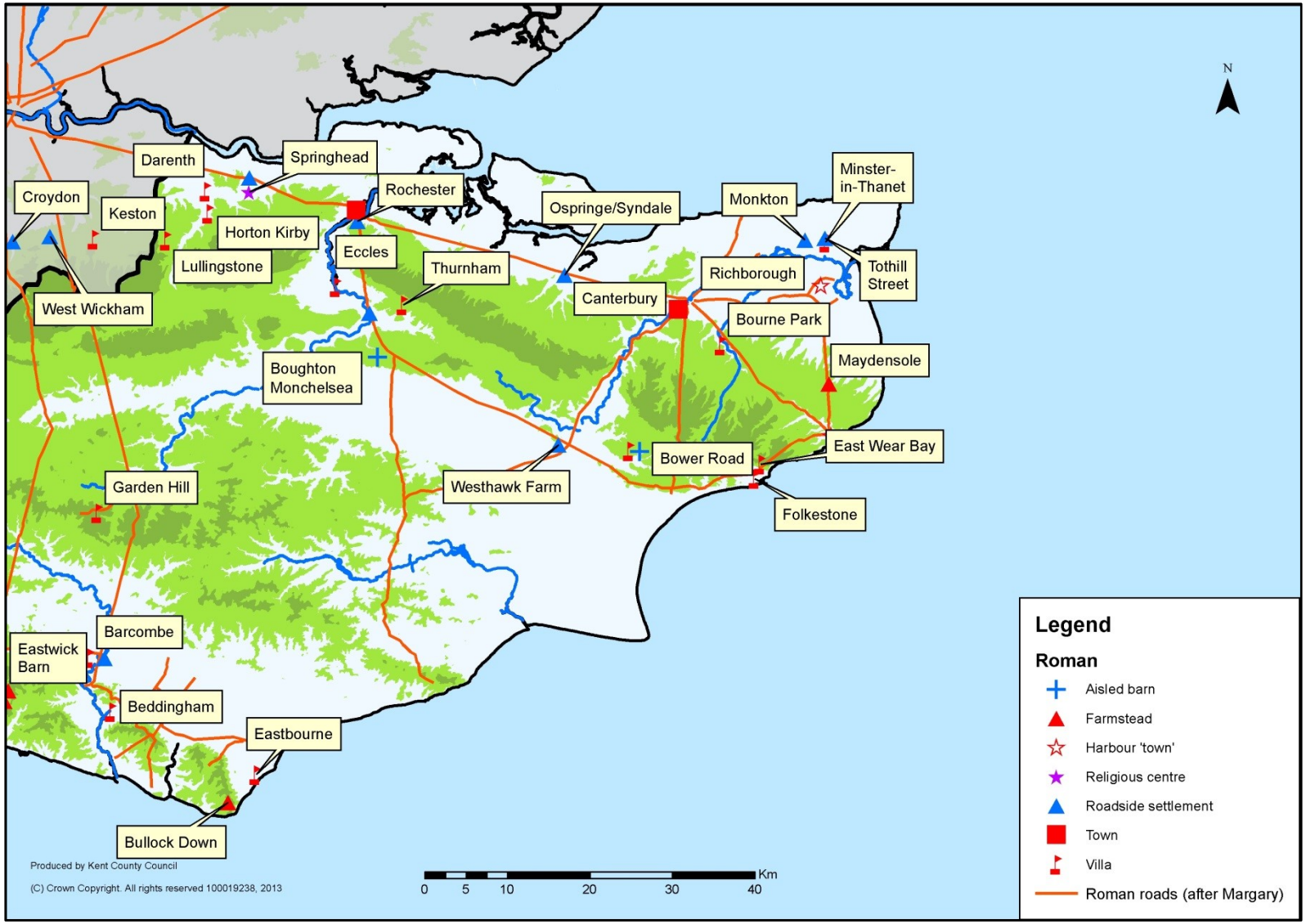

Figure 2 Map showing the location of settlement sites considered in the text (east)

investigation, and in some areas may reflect the low-lying, estuarine landscape.

The variation in the distribution and frequency of sites across the South-East is thus a consequence of both modern development and Roman rural settlement patterns. Excavations along the route of High Speed 1 have exposed numerous late Iron Age and Roman-British settlements on the Wealden Greensand in Kent (Booth 2011). These have added to several previously known settlements along this narrow geological strip that divides the heavy clays of the Weald from the surrounding chalk of the North and South Downs. This landscape zone has a relatively high proportion of villas, and it has been previously suggested that settlements here may have been located to exploit different environments (cf. Applebaum 1958; see 'Villas' section below). The North and South Downs both include a notable sample of Romano-British sites, consisting of farmsteads, villas and roadside settlements. Many of these have been identified by aerial photography, particularly in Sussex where the comparatively thin soils over the chalk aid crop and soil marks. It is also worth pointing out that many sites on the Downs were located on the slopes of the river valleys which were probably fairly easy to cultivate and close to water sources. Notable examples include the two villas at Chilgrove in West Sussex (Down 1979), while the pattern of villa settlement in the North Downs clearly indicates the use of rivers leading north to the Thames (Allen 2016, 116). To the north, the settlement pattern appears to have been quite different. Villas, for example, are comparatively rare in the London Basin, an area where complex farmsteads are much better represented (see below). Many of these appear to have been focussed on pastoral farming, though the majority occur outside the south-east study region (ibid., 85, 88).

In addition to the distinctive geographical settlement patterns that are beginning to emerge, there are also apparent differences in the timings of settlement establishment and abandonment across the region. Overall numbers of (excavated) settlements increase from the late Iron Age to the first half of the 2nd century AD (Fulford and Allen 2017, 3). The reasons behind this change are not clear. On the one hand, it may reflect increasing numbers of people, perhaps including immigrants looking to exploit new political and economic opportunities both pre- and post-conquest; on the other hand, it may represent an increasing demand for agricultural produce, particularly through arable expansion (see 'Arable farming' section below). This was probably driven by the state to supply the army and by the emerging urban centres. After the 2nd century peak, however, settlement numbers go into decline through to the end of the 4th century. The reduction is clearest in the eastern part of the region, particularly in Kent (ibid.). It is possible that this partly reflects increasing settlement nucleation. However, it is notable that roadside settlements in Kent, such as Westhawk Farm and Springhead, were also abandoned by the 4th century (Booth *et al.* 2008; Andrews *et al.* 2011). Traditional explanations have suggested an increasing threat from piracy in the region, though again this is difficult to substantiate from the archaeological evidence other than the construction of the Saxon Shore forts (Pearson 2003; see 'End of Roman rule' below). Nonetheless, it is worth pointing out that settlement

decline was far less marked further west in counties such as Berkshire, Hampshire and Oxfordshire.

While the number of excavated sites has increased understanding of the settlement pattern in the South-East, these should still be examined alongside other datasets, such as the Portable Antiquities Scheme (PAS) which records metal-detected finds. Comparison of the distribution of excavated sites against PAS finds in Kent has provided a useful means for observing wider land-use patterns (Booth 2017). Systematic studies of cropmark and LiDAR data will also provide additional information. One advantage of the larger dataset of excavated sites is the identification of different forms of settlements, particularly of farmsteads, which suggest variations in settlement organisation and local economy. The evidence base also now allows for a better understanding of the settlement hierarchy in the South-East.

4.1 Farmsteads

While it is probable that the Iron Age landscape continued to a large degree in respect of settlement location and farming practice (Champion 2007, 116, 120; Bird 2004, 27-9; Rudling 2003, 115-7), it is increasingly clear that farmsteads varied in size and complexity. The variation in settlement morphology ranges from unenclosed/open farmsteads, simple enclosed versions and more complex farmsteads. Categorisation of different farmsteads is less than straightforward, and many cannot be clearly identified as one type or another. Nonetheless, the morphological criteria for each has been outlined by Allen and Smith (2016). Complex farmsteads are usually seen as larger settlements than their unenclosed or enclosed counterparts, though this is often due to the presence of associated enclosures, trackways and fields. There are also sub-regional differences in the locations of these different farmstead types. For example, enclosed farmsteads are concentrated on the chalk downs, while complex farmsteads are more evident in low-lying areas such as the London Basin, most likely to exploit seasonal livestock resources (Allen 2016, 80, table 4.1).

Unenclosed settlements are difficult to identify owing to their lack of ditches, which limits the usefulness of non-intrusive techniques such as aerial photography and geophysical survey. Examples have been discovered during developer-funded excavations in low-lying areas, such as on the Thames gravels, e.g. Ashford Prison, Surrey (Carew *et al.* 2006), and the Sussex coastal plain, e.g. Westhampnett (Area 5), West Sussex (Fitzpatrick *et al.* 2008). These settlement forms tend to date to the late Iron Age, though whether this points to a distinctive pre-Roman type is unclear. At Ashford Prison, a rectilinear field-system cut across the preceding unenclosed farmstead, indicating a clear change in land-use in the later 1st century AD. Similarly, on the Sussex coastal plain, evidence for regular land division occurring in the decades after the AD 43 conquest is found at North Bersted, West Sussex (Taylor *et al.* 2014). Enclosed farmsteads dominate on the North and South Downs where today the overlying soils are relatively shallow, as at Eastwick Barn and Bullock Down, East

Sussex (Rudling 2003, 115-7), or Maydensole in Kent (Williams 2003, 234). This settlement pattern appears to have extended onto the Wealden Greensand, and to some extent the Low Weald, as at Mackie Avenue, West Sussex (Mullin *et al.* 2010). Elsewhere, there is some evidence for fields, enclosures and trackways, but mainly on sands and gravels, as for example in west Surrey in the Runfold area and at Hengrove Farm near Staines (Lambert 2009; Poulton *et al.* 2017) where settlement complexes developed in the early Roman period, though these tend to lack signs of regularity.

The lack of good evidence for structures and their function makes it very difficult to assess the nature of activity and the use of space at farmsteads. In the countryside, buildings are often difficult to identify at farmsteads (Bird 2000, 159-60). This is typically due to the poor survival of timber structures with shallow foundations, and excavators often rely on the presence of well-preserved post-holes, beam slots and/or drainage gullies. A recent survey shows that timber (and mass-walled) buildings from excavated farmsteads in southern England outnumber masonry-footed structures by almost five to one, though the ratio is far greater in the South-East, particularly in the London Basin, on the South Downs and the Sussex coastal plain (Allen 2016, 103, table 4.3, 105, Fig. 4.35). The number of circular and rectangular buildings is fairly similar, perhaps surprisingly, and this may also be due to poorer survival of the former. Rectangular buildings increase in number after the middle of the 1st century AD. Timber-built aisled buildings are becoming increasingly recognised, including examples at Bower Road near Smeeth and Boughton Monchelsea, Kent, though variations in construction technique may be evident (Booth 2011, 275). Masonry aisled buildings are rare at farmsteads and are more often associated with villas in this region (see below), though a good example was excavated at West Blatchington, East Sussex, which appears to have been a fairly high-status farmstead (Norris and Burstow 1950; 1952).

4.2 Villas

The distinction between a ‘villa’ and a ‘farmstead’ in Roman Britain is often arbitrary, and the two types of settlement are more likely to have been part of a spectrum rather than clearly defined categories (Allen and Smith 2016). Villas are here considered as structures having at least stone walls for rectangular buildings with evidence of luxuries such as tessellated floors, plastered and decorated walls, and bath suites or at least heated rooms. Recent surveys indicate that about 150 are known within the region (approximately 50 for Sussex, 30-40 for Surrey and some 65 for Kent), though relatively few have been adequately excavated (Allen 2016, 80, table 4.1). Their distribution has clearly been influenced by geology and topography: they largely avoid the central Weald and the gravels, and a significant percentage are found near a boundary with one of the clays (Bird 2000, 157-8; Allen, op. cit.). There are concentrations: in Sussex, on the coastal plain, in the valleys of the chalk downs and on the greensand (Rudling 1998, 51), in Surrey, south of the Downs, and, in Kent, along the Darent and the Medway valleys and the Watling Street corridor near

Faversham (Millett 2007, 149), though several of the Kent villas are in creeks giving access to the coast (see also Allen 2016, 116-7). The long-noted absence of villas near Canterbury (Blagg 1982, 51; Detsicas 1983, 83-4; Millett 2007, 169), thought to be explained by unsuitable local soils and topography, has recently begun to be challenged. Geophysical survey and small-scale excavation at Bourne Park, Bishopsbourne, Kent has revealed evidence of substantial masonry structures and enclosures of probable Roman date along the Canterbury–Dover road (Wallace *et al.* 2016).

The region has a number of early villas with elaborate plans, such as Pulborough, Southwick, Angmering, and Arundel in West Sussex, and Eastbourne in East Sussex, with the Fishbourne 'palace' pre-eminent among them (Rudling 2003, 112-4). Most are in Sussex, but Eccles, Kent, may be another (Millett 2007, 152), and perhaps Ashtead, Surrey (Walthew 1975, 196). It is probable that more villas were established in the 1st century than is currently known. Several have related evidence for continuity from the Iron Age either in the shape of industrial activity, e.g. quarrying at East Wear Bay, Folkestone, Kent (SAM KE82; NMR 465716), structures, e.g. Thurnham (Millett 2007, 154-5) and Keston, Kent (Philp *et al.* 1991, 17-38), or land-use, e.g. fields at Beddington, Surrey (Howell 2005, 20-1) and Bignor, West Sussex (Rudling 1988, 221) (see Allen 2016, 91, Fig. 4.18, for a survey of dating evidence from excavated villa sites). Evidence for pre-villa farmstead activity often includes pre- and post-Roman material. Recent excavations suggest that pre-villa phases were probably missed in older work, which usually only focussed on the villa buildings, for example at Barcombe, Sussex (Rudling 2003, 119-20) and the early timber building at Rapsley, Surrey (Hanworth 1968, 8). There are some indications that a few large villas, such as Bignor, West Sussex, developed in the later Roman period, perhaps at the expense of others which seem to have been abandoned (Rudling 1998, 51). Other examples might be Darenth and Folkestone in Kent; it is curious that the late, apparently rich villa at Lullingstone, Kent, seems to be much smaller (Detsicas 1983, 103-115; 135-8).

It is possible that villas had landholdings that covered and exploited different landscapes, and their frequent location near geological boundaries might support this suggestion (Bird 2000, 156-7; cf. Rudling 1998, 51). Applebaum (1958, 69-70) argued that villa owners may have preferred land at the margins of different soils, where arable, woodland, and other environments might be exploited together, a suggestion that was also forwarded by Frere (1987, 265) in relation to Bignor villa. Villas often seem to be carefully sited in the landscape, on south or east-facing slopes and frequently near rivers, and sometimes there is clear evidence for very formal planning including garden features, e.g. at Fishbourne, Bignor and Darenth (Rudling 1998, 52ff; Detsicas 1983, 103-5).

For most villas, consideration of plans and dating is compromised by the inadequacies of early excavation (e.g. 19th/early 20th century). It is best to place most attention on

those excavated at least from the 1960s onwards, for example at Beddingham, Barcombe, Fishbourne in Sussex; Thurnham, Minster in Thanet, Keston in Kent; Beddington and Rapsley in Surrey (Rudling 2003, 118-21; Cunliffe 1998; Millett 2007, 154-5; 170; Philp *et al.* 1991; 1999; Howell 2005; Hanworth 1968). It is becoming increasingly the case that while villas traditionally dominated discourse on the Romano-British countryside they are now comparatively rarely excavated through development-led archaeology, as many are scheduled and are protected through planning regulations, coupled with the fact villas are expensive sites to excavate, analyse and report, partly owing to the large quantities of finds they produce. This means that while current understanding of rural sites (except for villas) is increasing considerably through commercial archaeology, villas are becoming somewhat left behind, particularly in terms of environmental evidence and land-use patterns. Recent work on a few exceptions provide useful opportunities to examine areas of villa life that are poorly understood, such as at Snodland, Kent (Dawkes 2015).

There is enough evidence for the early 'palaces' to show that they employed ideas and indeed craftsmen from the Mediterranean world (Rudling 1998, 50-1). Others show much more gradual development within the tradition of the north-western Empire, starting from a few rooms, and then gaining additions over time, such as a winged portico front, baths and even courtyards (e.g. Rudling 2003, 118). Closer analysis hints that this standard picture may hide many oddities, such as the curved end wall at Beddingham and Rapsley's muddled winged corridor front. Standard ideas evidently received very local interpretations. Villas usually had flint or greensand walls, sometimes with bonding courses of tile or greensand. These are commonly interpreted as dwarf walls for timber superstructures although a complete end wall is known at Batten Hanger, West Sussex (Esmonde Cleary 1994, 289-90). Cellars are a notable feature of some Kent villas, of which Lullingstone is the best-known example (Perring 1989 280, 296-8). Tiles of all kinds are common at villas, for roofs, columns, and every type associated with heated rooms. Bath houses at Ashtead and Eccles include circular laconica (rooms in baths used for hot air or steam), a most unusual feature of non-military sites (Walthew 1975, 196). Some places have good evidence for glazed windows, including a complete pane from Garden Hill, East Sussex (Harden 1974). Although there is plenty of evidence for the use of tesserae, the common lack of surviving mosaics is noteworthy (see below).

Several excavations have added considerably to our knowledge of ancillary buildings at villas and elsewhere. Examples include aisled buildings at Fishbourne Creek, West Sussex (Rudkin 1986), and Barcombe, East Sussex (Rudling 1998, 49-50) and perhaps Barnwood School, Surrey, the latter probably with a tower (Poulton 2005, 41-4). Double lines of large post-holes at Beddington and Hengrove Farm, Surrey (Howell 2005, 32-5; Poulton *et al.* 2017) also probably represent aisled buildings that elsewhere might be expected to have stone outer walls, but some Kent sites have rectangular structures with post-holes on all sides and other evidence to suggest that these mark the line of the outer walls, e.g. Thurnham, Bower Road near Ashford, Kent,

several at Keston, Greater London, and the so-called 'kitchen' at Lullingstone (Millett 2007, 154-5; Booth 2011; Philp *et al.* 1991, 298-300; Meates 1979, 102-4). A large, possibly aisled building at Horton Kirby, Kent, has been interpreted as a granary because of its many internal sleeper walls, but similar interpretations of buildings at Darenth and Lullingstone seem less convincing (Philp and Mills 1991; Meates 1979, 111-8). A simple courtyard building found at Fishbourne, immediately east of the palace, with well-constructed stone foundations and flanking walls has so far defied interpretation. Possibly it stood at the rear of a courtyard and faced east, which might favour a religious interpretation (Manley and Rudkin 2005b, 132-3). It was built before the palace but probably not before AD 43 (note the tile in the foundations: Manley and Rudkin 2005b, 17-19), and it was not demolished until the end of the 2nd century or beginning of the 3rd.

4.3 Roadside settlements

Soon after the establishment of the road system in the South-East, nucleated settlements began to develop. Some may have been new foundations, such as at Alfoldean, West Sussex (Luke and Wells 2000, 93-4) and Westhawk Farm, Kent (Booth *et al.* 2008). Roadside settlements were mostly small, and some may be described by the traditional term of 'small town', although any definition based on size and function is made difficult by the limited evidence for extent, layout, building types and history for most sites. Where evidence exists, there seems to be a mixture of regular planning and organic development. The largest single excavations have been undertaken at Springhead (Andrews *et al.* 2011) and Westhawk Farm (Booth *et al.* 2008), Kent, and with these it is worth including Syon Park, Brentford, Greater London (Cowie *et al.* 2013), given its proximity to the region. Staines, Surrey, has also been subject to a number of useful excavations over the past 25 years (e.g. Crouch and Shanks 1984; McKinley 2004; Jones 2010). Elsewhere, roadside settlements have received little study and sometimes their interpretation as a nucleated settlement may rest more on their modern-day function than the reality of the evidence (e.g. Dorking, Surrey; and Croydon and West Wickham, Greater London, etc.). The majority seem to be logically placed in relation to the communications systems and possibly served as market centres for their surrounding area. It is worth highlighting recent excavations at Flexford, Surrey, and Bridge Farm, Upper Wellingham, East Sussex, though yet to be fully published (Callow 2017; Millum 2013), show that roadside settlements have been discovered in rural areas with no preceding indication that they existed.

Places to provide services for travellers may have been deliberately established at regular intervals on the new road system at an early stage. This is particularly likely in the case of Alfoldean, West Sussex, where there is a later earthwork enclosure on the south side of the River Arun. Fieldwalking, geophysical survey and limited excavation have shown evidence for extensive enclosures and trackways, with finds evidence pointing to domestic activity to the south of the enclosure alongside Stane Street (Luke and Wells 2000; Thompson 2006). Alfoldean had no post-Roman

successor settlement, and the local place-name, Dedisham, may have derived from *mutatio* (Coates 1981, 66-7), which suggests that it primarily functioned as an official posting station. A similar, double-ditched enclosure with a large timber-post building has been identified at Bridge Farm, Upper Wellingham, where two roads crossed at a point on the River Ouse (Millum 2013). Here, associated settlement evidence includes a tile-lined pit, a possible tile kiln, and a small post-hole structure, plus a range of coinage, pottery and other finds dating between the mid-1st century and the end of the 4th century. Other examples along Stane Street are also suggested at Hardham, West Sussex, near Dorking and Merton, Surrey, while Iping, West Sussex, was located on the Chichester–Silchester road, and Staines may have originated as a *mutatio* on the London–Silchester road (Rudling 2003, 114-5; Bird 2004, 43). Posting stations are also likely to have existed on the Canterbury–London road in Kent, with Ospringe/Syndale, Rochester and Dartford all being possible candidates (Millett 2007, 146, 162, 167). These places were often sited next to a river crossing or had a good water supply, with space for animal lines. Excavations at Syon Park, Brentford, Greater London have revealed probable livestock enclosures set back from the road, and a trackway leading from it to a palaeochannel (Cowie *et al.* 2013).

Whether or not official, other places probably also supplied the needs of road travellers, such as at Croydon and West Wickham (Bird 2000, 156), Maidstone (Blagg 1982, 54) and Westhawk Farm, Kent (Booth *et al.* 2008), and Hassocks, West Sussex (Rudling 2003, 115). These settlements probably provided a range of functions, though they no doubt varied in character and extent (cf. Millett 2007, 162-6, 182-3). The settlement at Springhead was primarily a ritual complex with services and accommodation for pilgrims (Andrews *et al.* 2011). Regular property boundaries have been discovered at Westhawk Farm (Booth *et al.* 2008), and perhaps at Alfoldean (Luke and Wells 2000, 94), and there are hints of focal points marked by religious sites and/or open spaces that may have served for congregations and markets.

As with farmsteads, evidence of buildings at roadside settlements is variable and reliant on surviving foundations. This difficulty has been illuminated by the discovery of later 1st-century clay floors set alongside the Roman road at the Prudential 1989 site in Staines, Surrey, suggesting the presence of box-framed timber buildings with no trace of post-holes or beam slots (Jones 2010). Substantial structures have been found, however, such as the large post-built structure mentioned above at Bridge Farm, Upper Wellingham (Millum 2013), and part of a stone-founded building in Staines (McKinley 2004, 35-43) and a probable aisled building in Ewell, Surrey (Stansbie and Score 2004, 194-5, 213). Slighter structures have been discovered at Westhawk Farm, Kent, in the form of simple, rectangular timber buildings characterised by beam slots or post-holes, and circular ones marked by drainage gullies (Booth *et al.* 2008). These latter were still being constructed in the early 3rd century and are known elsewhere, for example in Staines (Bird 2004: 56). A lack of roof tiles suggests that many buildings in these settlements had straw or wooden shingle roofs. There is some evidence of cellared buildings, or buildings with sunken

bases, in the region, particularly in eastern Kent. The recent discovery of 23 such buildings at Monkton (Bennett *et al.* 2008), with further examples coming to light at Tothill Street, Mount Pleasant (Birchenough 2010), and along the East Kent Access Road (Andrews *et al.* 2015) suggests a building tradition localised to the Isle of Thanet. Although these buildings are reminiscent of Anglo-Saxon grubenhäuser, there are notable distinctions in building style and the Thanet examples generally date to the 2nd and 3rd centuries AD.

4.4 Towns

Canterbury, Kent, and Chichester, West Sussex, were probably the only two major towns in the region, though Rochester, Kent, was important enough to be given walls in the first half of the 3rd century (Burnham and Wacher 1990, 77-9), perhaps owing to its coastal position. It is difficult to judge the true size and importance of harbour 'towns' like Richborough and Dover, though the character of these settlements was no doubt heavily influenced by the military at different points in time (Black 1995). This is exemplified by the 17ansion at Dover, perhaps best known for its 'painted house' (Philp 1989). Both Richborough and Dover would have been impacted by the construction and use of their respective Saxon shore forts from the mid–late 3rd century (Cunliffe 1968; Philp 1981). The lack of urban settlement in Surrey may owe much to a low population and the centralising effect of Southwark.

Only Canterbury and Chichester show signs of a formal street grid and associated monumental buildings (Millett 2007, 157; Wacher 1995, 258). Both had a central forum-basilica with nearby public baths. Recent developer-led work in Chichester re-exposed the town's bathhouse complex (Dawkes and Hart 2017). Although originally excavated by Down (1978), the structure has now been re-recorded using GPS which, alongside excavation of the nearby sewer ditch, has allowed for a rephasing of the structure and additional information on its use and form. The theatre at Canterbury is the only one known in the region. The first phase of this building, dating to the later 1st century, appears to have been elliptical, and thus possibly Gallo-Roman in design. It was later rebuilt in classical form and it has only one British parallel at Colchester, Essex (Blagg 1982, 51-2; Wacher 1995, 53). The theatre was probably associated with the adjacent religious site, and there is slight evidence to suggest that there were smaller theatres at Springhead and Wanborough, Wiltshire (Bird 1996, 228 n16; 2008a, 69). Chichester had an amphitheatre, similar in size to those at Cirencester, Gloucestershire and London (Wacher 1995, 50), and there was another at Richborough. The region had at least one prominent imperial monument in the shape of the great *quadrifons* arch at Richborough, probably erected around AD 80-90 (Millett 2007, 141). It has been convincingly argued that it symbolically marked the entrance to and from the province (Strong 1968, 72-3). The arch was marble-clad and probably constructed by Gaulish craftsmen (Blagg 1982, 54).

Evidence available for other towns suggests that development was largely organic, at for example Southwark (Cowan 2003; Cowan *et al.* 2009) and Richborough (Millett

2007, 143). There is some evidence to suggest the presence of extra-mural settlement outside the major towns, such as at the Cattle Market site in Chichester (Down 1989), which raises the question of how town boundaries were marked prior to walls being constructed. There are few plans of private buildings in towns. Patchy evidence from Canterbury suggests that there were several good quality houses built after the start of the 2nd century, with mosaics and tessellated floors being frequent (Blagg 1982, 54; Millett 2007, 157).

5. Production and consumption

The slow development of most villas in the region and the generally organic growth of roadside settlements tends to suggest economic progress encouraged by peace and improved communications. Expanding zooarchaeological and archaeobotanical datasets are increasing our understanding of arable and pastoral farming and trade in food products (Allen 2017; Campbell 2017; Lodwick 2017a; Maltby 2017), while pottery remains a good indicator of economic activity (Rayner 2017). It is difficult to assess change through time, but the collapse of low denomination coinage in the later period has implications for the state of the market economy (Rudling 1988, 179).

Towns and roadside settlements presumably acted as market centres: Rochester, for example, probably prospered on the back of a trade in salt, pottery, Kentish rag and the produce of the Medway villas (Millett 2007, 167). London, the other towns, and the army will have created a demand for food, drink, clothing, animals, salt, fuel, building materials (including timber), metalwork and pottery. Some of this was probably provided by specialist production centres. Many villas could have made use of different soil types, perhaps indicating mixed farming. Woodland produce is likely to have been a strong part of the economy near the towns, and particularly around London (Bird 1996, 226). Villas on the Sussex coastal plain and in the Darent valley and east Kent may have derived their wealth from the grain trade, the first and last perhaps mostly in export, while the Darent supplied London (Bird 1996, 223, 227). The East Sussex villas perhaps fed personnel in the iron industry (Rudling 1998, 51) and some sites are likely to have been involved with production of pottery, tile, stone and even iron, such as at Borough Farm in Pulborough, Ashtead, Eccles and Garden Hill, Hartfield.

5.1 Arable farming

Farming in the South-East was essentially mixed, involving integrated systems of arable cultivation and livestock husbandry. However, the ever-expanding environmental dataset is beginning to show some regional distinctiveness in the types of plants and animals exploited. There is also a growing awareness that an expansion in agriculture occurred in the 100 years or so after the Claudian invasion of AD 43,

presumably to meet the demands of the state and to some extent the developing urban centres, the impact of the latter perhaps being more localised.

Spelt wheat and hulled six-row barley were the principal arable crops in the South-East (Campbell 2017). Lodwick's (2017a, 22-3) recent study of archaeobotanical assemblages from rural sites in Kent shows that spelt wheat dominated throughout the period from the late Iron Age to the end of the Roman period. However, there is clear evidence that barley and emmer wheat were far more common in pre-conquest assemblages, and only in Roman assemblages did spelt wheat come to overwhelmingly dominate. The relative frequency of emmer wheat in late Iron Age assemblages from Kent is notable and highlights a difference from other regions in southern England (ibid.). This may be due to favourable soil conditions on the Wealden Greensand and in the alluvial river valleys that flow through the North Downs. It is possible that spelt wheat, emmer and barley were deliberately grown together in fields as a maslin crop (cf. Jones and Halstead 1995). Campbell (2017, 137-8), however, proposes that emmer may have been grown on its own throughout the Iron Age and suggests that the presence of significant quantities in some early Roman assemblages (e.g. Saltwood Tunnel, Kent; Springhead sanctuary, etc.) highlights the continuation of a cultural tradition in cereal farming.

The apparent increase in spelt wheat remains over other arable crops in the Roman period is also seen in other regions, such as Wessex (Lodwick 2017a, 24-6), and is partly due to the recovery of charred cereal assemblages from corn-drying ovens which nearly always feature spelt. Corn-drying ovens are routinely sampled for environmental remains on Roman sites at the expense of other features that may have evidence for the processing or deposition of remains from other cereal types (Campbell 2017, 136). Nonetheless, the proportions of spelt in archaeobotanical assemblages from the South-East is overwhelming and points to a cultivation strategy that became focused on a single crop type. Lodwick (2017a, 32) argues that the shift from mixed assemblages to a spelt-wheat 'monoculture' represents more extensive arable-farming regimes. This argument is based upon the idea that greater areas of land were being turned over to arable cultivation without an associated increase in manuring, which in turn led to a reduction in soil fertility favouring spelt wheat over barley and emmer (cf. van der Veen and O'Connor 1998).

The evidence of more extensive arable cultivation in the region is accompanied by signs that large-scale processing may have become centralised to some degree. This is partially indicated by the presence of water mills at Ickham, Kent (Millett 2007, 166, 182; Bennett *et al.* 2010) and the increasing number of millstone discoveries, which often provide the only evidence for such centralisation (Shaffrey 2015). Water mills were introduced to Britain during the Roman period as a means of processing greater quantities of grain, possibly for the urban market or to supply the army. However, structural remains of water and animal-powered mills are not well known, and this is an area requiring further investigation.

5.2 Animal husbandry

As with arable farming, the zooarchaeological dataset for the South-East is beginning to show evidence for significant changes in the pastoral economy, most notably a shift from fairly mixed cattle and sheep husbandry to predominantly cattle-based farming. This change is most clearly marked in the Thames Estuary and London Basin region, which includes north Kent and much of Surrey, as well as areas to the north of the Thames (Allen 2017: 89-91). The majority of faunal assemblages dating to the late Iron Age and early Roman period in this region include around 30-40 per cent cattle remains (by NISP), and a similar frequency of sheep/goat bones. By the mid-Roman and late Roman periods, a much higher proportion of assemblages include 60 per cent or more of cattle remains, while sheep/goat bones are often present at around 20-30 per cent. A similar pattern was also observed in the south-central region which includes the South Downs, the Sussex coastal plain and the Hampshire Downs, though the shift towards higher cattle percentages was less marked in this region, perhaps due to a continuing sheep farming tradition on the chalk downs (ibid., 87-9).

Nonetheless, cattle largely came to dominate the pastoral economy of southern England in the Roman period. This was partly due to the importance of supplying the major towns, particularly London, with beef and other cattle by-products (Maltby 2017, 190-4). Cattle-dominated assemblages became common from the beginning of the 2nd century AD, around the time that mixed arable-farming regimes shifted towards spelt wheat (see above), and it is possible that these changes were linked. Extensive arable-farming would have required more cattle to plough larger areas of land. Rather than breeding cattle primarily for the urban market, much of the beef that was supplied to towns may have been from cattle that had already served as plough or dairy animals. This is supported by Maltby's (ibid., 193) observation that peaks in urban cattle slaughter occurred around five–seven years old. A predominance of female cattle in urban assemblages also suggests that this was the case, as retired dairy cows may have been targeted (ibid., 194). There is also increasing evidence that some larger cattle were present in southern and eastern England from the 2nd century, perhaps signalling improvements in breed/type and/or an increasing number of oxen (Albarella *et al.* 2008; Allen 2017, 100-1).

Large-scale movement of cattle in the Middle Thames Valley is indicated by the establishment of wide droveways (see above), presumably to supply the major urban markets at London (Allen 2016, 133-4; see also Bird 1996, 224). This implies that livestock supply had become more organised. Hay meadow cultivation is one indicator of more intensive livestock management. The production of hay requires grassland protected from livestock in order to grow for longer periods. The grass is then harvested as a nutritious fodder crop and is important for maintaining herds over winter. Archaeologically, hay meadows are difficult to detect and require the identification of key grassland species such as yellow rattle (*Rhinanthus minor*), meadowsweet (*Filipendula ulmaria*) and common knapweed (*Centurea nigra*) (Greig

1984). The earliest conclusive archaeobotanical evidence of hay meadows in Britain comes from the latest Iron Age phase at Silchester, Hampshire (Lodwick 2017b), just outside the study region. Possible early-Roman environmental evidence for hay has been identified on the Sussex coastal plain at Penfold Lane, Rustington Bypass, West Sussex (Gilkes and Rudling 1999). Further work is crucial for establishing whether hay production was occurring in other lowland areas, such as the Middle Thames Valley.

While cattle were central to the Romano-British pastoral economy, sheep continued to play an important role, primarily for wool. Sheep bones are difficult to separate from goat bones, but the majority of those found on Roman sites are often assumed to be from sheep. Maltby (2017, 195) found that bones diagnostic of goats contributed less than 5 per cent of the total ovicaprid remains from Romano-British towns. Sheep bones are frequently recovered in high percentages from Iron Age sites in southern Britain, representing a long tradition of sheep farming on the chalk downs (Hambleton 1999). This largely continued into the Roman period, though as seen above cattle became relatively more common. It is traditionally thought that late Roman Britain witnessed an intensification in wool production, mostly for high-quality garments and furnishings, such as the *Birrus Britannicus* and the *Tapete Britannicum* (Frere 1987, 272). There is little evidence from animal remains at rural settlements, however, of sheep management practices that were geared towards intensive wool production, as slaughter patterns largely remained similar to those seen in the Iron Age (Allen 2017, 114). It is more likely that intensive wool production would have been focussed around urban settlements, providing access to processing equipment and markets. For example, the *Notitia Dignitatum* notes the presence of a *gynaecium* (a woollen mill) at 'Venta', and Winchester is perhaps the most likely candidate for this building (Wild 1967). Wool combs are also a useful indicator of textile processing and such finds have been discovered at roadside settlements as well as towns (e.g. at Ewell (Wild 1970, 25)). It is possible that intensive sheep breeding around Roman towns was linked to wool exploitation; at Chichester, West Sussex, sheep increased in shoulder height by c. 200mm between the 1st and 4th centuries (Levitan 1989, 253). There is also some evidence that a larger, hornless type of sheep was present at later Roman sites in southern England, and may represent a new, imported breed (Maltby 1994, 94; 2016, 5).

5.3 Food and drink

For the most part, and particularly in the countryside, people's diet remained largely unchanged from the later Iron Age to the Roman period. Cereals likely formed the bulk of the staple foods and were probably accompanied to a lesser extent by fruits, vegetables and dairy products. Remains of fruits and vegetables are difficult to find on archaeological sites, since they tend not to become charred in the same way as cereals. Fruit remains, particularly stones/seeds are perhaps most often identified as

mineralised remains (usually formed in cess pits); apples/pears, plums and cherries appear to have been increasingly consumed through the Roman period (van der Veen *et al.* 2008). In the South-East, mineralised remains of plums are known from several roadside settlements, villas and farmsteads (Campbell 2017, 146). Cherries also appear to have been relatively common, as remains have been found at sites in Kent, including Westhawk Farm, Lullingstone, Springhead, Northumberland Bottom and Northfleet (ibid.). Evidence for grapes is less common and is restricted to mineralised seeds found at Beddington villa, Surrey (de Moulins 2005, 106), the roadside settlement at Springhead and in a cremation burial at Pepper Hill, Kent (see Campbell 2017, 145). Excavations in the South-East have yet to establish evidence for vine-growing, as has been found in Northamptonshire (Brown *et al.* 2001). Vegetables are even more difficult to find than fruits, and some, such as carrots and parsnips, may represent the remains of wild plants rather than cultivated examples (Campbell 2017, 148). More exotic and imported plant foods are known from the region, such as figs from Pepper Hill and Springhead, Kent, and Staines, Surrey (ibid.).

Meat consumption is indicated by the recovery of animal bones from all types of site, though meat was probably eaten comparatively sparingly. Only in towns (and perhaps villas), where there was a near constant supply of livestock and the presence of professional, full-time butchers (Maltby 2007), was meat available on a more regular basis. Cattle bones overwhelmingly dominated the Roman-period assemblages at Chichester (Levitan 1989), though sheep and pigs are better represented at Canterbury (King 1982). There are a number of factors that may explain these differences, such as local preference/demand or local availability. The variation is more likely, however, to be due to the locations of the excavations in the towns. The Canterbury excavations were undertaken at a central location, while the Chichester Cattlemarket assemblages were excavated outside the eastern town boundary. Several large towns have produced massive dumps of butchered cattle bones in peripheral locations, indicative of organised waste disposal (Maltby 2017).

Pig bones tend to be recovered in greater quantities on late Iron Age and early Roman sites with evidence for high-status and long-distance trade links, such as at Fishbourne, West Sussex (Allen and Sykes 2011), and the late Iron Age oppidum-phase at Silchester (Grant 2000). This may reflect a continental preference for pork at these settlements. Clear evidence for pork consumption has been found at Hayling Island temple, Hampshire, where the selection of specific body parts suggests that pig joints were taken to the site for religious feasting events (King 2005).

There is only limited evidence for hunting, usually finds of deer bones at villa sites, such as Fishbourne, West Sussex and Keston, Kent (Allen 2014). At Fishbourne, in particular, there is evidence that not only was hunting a well-practiced past-time, but that wild animals were actively managed near the site (Allen and Sykes 2011). Remains of red deer, roe deer, fallow deer (a continental import), wild boar, bear, hare, as well as a wide range of wildfowl species including common crane, were all

identified. Several fish species were recovered from an early Roman ditch at the site, all of which were probably caught in local estuarine or coastal waters, and no doubt represent the remains of a feast (ibid., 13). In a wide-ranging survey of fish bones from Roman sites, Locker (2007) notes that nearly half of those recovered in the South-East derive from villas, while about 40 per cent derive from the major towns, and only 11 per cent come from other rural sites. This may suggest that fish consumption was a cultural marker, perhaps reflecting social status, partly driven by fish marketing at major centres. Eel, herring and plaice/flounder were the main fish species found in at sites in the region (ibid., 150). Bones from a late Roman well at Beddington villa included ray, herring, bullhead, and stickleback (Pipe and Locker 2005), while fish are increasingly being found on lower-status sites where environmental floatation has been undertaken (e.g. Booth 2011, 297). Marine molluscs, including oysters, cockles, mussels, whelks and winkles were also fairly commonly consumed in the region.

The distribution of mortaria, which was concentrated in the north-western provinces, may serve to indicate the degree to which particular dietary practices were taken up in the Roman period. The specific function of mortaria, however, remains unclear and they should not be simply taken to be a representation of 'Roman' cultural practice (e.g. Cramp *et al.* 2011). Amphorae may have had secondary uses beyond the transport of foodstuffs, though evidence for their contents is occasionally found, for instance *garum* at Beddingham, East Sussex (D Rudling, pers. Comm.). An inscription on a vessel in Southwark records 24lbs of honey, the only available sweetener; a large Alice Holt pottery vessel with prepared holes has been interpreted as a beehive, although this is disputed (cf. Bird 1996, 225). Honey bees are recorded in waterlogged deposits in a late Roman well at Thurnham, Kent (Booth 2011, 297-8) and may suggest that bee-keeping was being practiced at the villa.

5.4 Pottery production

Probably more than 100 pottery kilns are known in the region, the majority in Kent (Swan 1984, 139-141; 148-9). Pottery production centres of more than local significance were the Alice-Holt/Farnham/Overwey complex on the Surrey-Hampshire border (Clark 1950; Lyne and Jefferies 1979), the North Kent kilns, in particular Upchurch, Cliffe and Cooling (Monaghan 1987) producing Black Burnished Ware (BB2) and fine black wares, and the Wiggonholt/Pulborough area in Sussex, for whitewares and mortaria (Evans 1974) and even Samian ware (Webster 1996, 100). In all cases, these kilns were supplying London and other sites in the South-East. Other rural industries such as that producing Patchgrove ware and urban-based kilns at Canterbury and Chichester appear to be of more local significance (Pollard 1988). The BB2 industry seems to have considerably retracted around AD 300, though Alice Holt products were widespread throughout the 4th century, at which time the Oxfordshire industry monopolised mortaria and colour-coat supply (Tyers 1996). Kilns at Farnham and Overwey, Surrey, were comparatively unusual in form (Falkner 1907; Clark 1950). Small kilns with permanent domes are recorded in the North Kent

industry (see Swan 1984, plate 1 for a remarkably well-preserved example excavated in 1932 at Bromhey Farm, Cooling, Kent).

Some of the pottery produced suggests that continental potters may have migrated to serve developing markets. The so-called Aldgate-Pulborough potter was responsible for Samian ware production requiring special kilns in the Sussex region. Claudian-period potteries at Eccles and Canterbury included the production of flagons and mortaria (Pollard 1982, 61), while continental-style butt beakers were made at Chichester (Down 1978, 56-7; 204-11). It is also worth noting the influence of Gallo-Belgic forms on Upchurch ware (Booth pers. Comm.). The products of the main pottery industries suggest that the Weald may have been something of a barrier to trade: production centres to the west can serve either side (e.g. Alice Holt; New Forest; Oxfordshire), but those to the north apparently do not (e.g. Nene Valley, Northamptonshire; *Verulamium*, Essex), except from coastal locations (Tyers 1996; cf. supply to Beddingham: Rudling 1998, 58, and the seemingly isolated conservative East Sussex Ware industry (Green 1981)). If Stane Street (the Roman road from Chichester to London) was intended to bridge the barrier, it may not have been very successful.

5.5 Tile production

Several tile kilns are known with relatively modern, excavated examples known at Hartfield, Sussex (Rudling 1986), Reigate, Surrey (Jones 2004) and Ashtead, Surrey (Bird 2016). Apart from those at Canterbury (Jenkins 1956), most kilns were well away from towns, which raises interesting questions about the nature of the industry. They often seem to produce specialist products including relief-patterned box tiles, particularly a Surrey and Sussex phenomenon, and several groups have been identified (Betts *et al.* 1994). Also, the production area for the *Classis Britannica* tiles is well known (Peacock 1977, 237-42).

33Hartfield and Ashtead tile kilns have unusually good evidence for the way airflow was controlled from the stokehole and through the kiln. Some tile production also suggests experimentation, such as the box-flue tiles with cut-outs and clay holdfasts (for bonding to the wall) at Ashtead (Lowther 1927, 151-2), and the ceramic spacers at Garden Hill (Money 1974). The nearby Hartfield kiln had associated buildings (Rudling 1986, 199-200), a workshop is suggested at Itchingfield, Sussex (Green 1979) and a surfaced ‘brickyard’ at Wykehurst Farm, Surrey (Goodchild 1937), whose kiln had a good example of a long, tile-built stokehole drain (cf. Reigate: Jones 2004, 4-5). Graffiti on a tile at Wiggonholt, West Sussex, refer to tile products (Tomlin 1979, 233).

5.6 Stone quarrying and manufacturing

The region has only one reasonable building stone, Kentish Rag, used for example in London’s defences and the temple of Claudius at Colchester (Blagg 1982, 58), although Reigate stone has been recorded in a pre-Boudican context in Southwark

(Drummond-Murray and Thompson 2002, 25-6). Some other stone was imported, for example oolite from the south-west for Richborough, Eccles and Farningham, Kent, and various marbles. There is some evidence for the use of Wealden 'marble'. The different stone types used throughout the region were last studied as a whole by Williams (1971). More detailed recent work for the Saxon Shore forts, together with other evidence, is taken to suggest a south and east England coastal trade including movement of Wealden stone (Allen and Fulford 1999; but note also Allen *et al.* 2001; Pearson 2003). Stone artefacts were mostly imported to the region because of a lack of suitable stone types, but querns were produced in the Lodsworth area, Sussex (Peacock 1987; Shaffrey and Roe 2011), at Folkestone, Kent (Keller 1989) and early on at Worms Heath, Surrey (Green 2017). One of the most common whetstone materials, formerly and widely misidentified as Kentish Ragstone, is now thought to have a source in the Wealden sandstone, although the precise provenance remains unknown (Allen and Scott 2014). Chalk was also widely exploited across the region for spindle whorls, weights, vessels and other artefacts, as well as in construction, and perhaps for agricultural marling (though this still needs to be demonstrated for the Roman period).

5.7 Iron production

The Wealden iron industry was one of the most important in Britain (Cleere and Crossley 1985, 57-86; Hodgkinson 2008). The evidence strongly suggests that there was large-scale production at a few sites, with local production at many more (Hodgkinson 1999; 2008). The known large-scale production sites are all near Beauport Park, Sussex, which has iron production and a bathhouse linked to the *Classis Britannica* by stamped tiles, implying fleet-controlled production for transport by sea to military consumers. Although this interpretation can be challenged (Millett

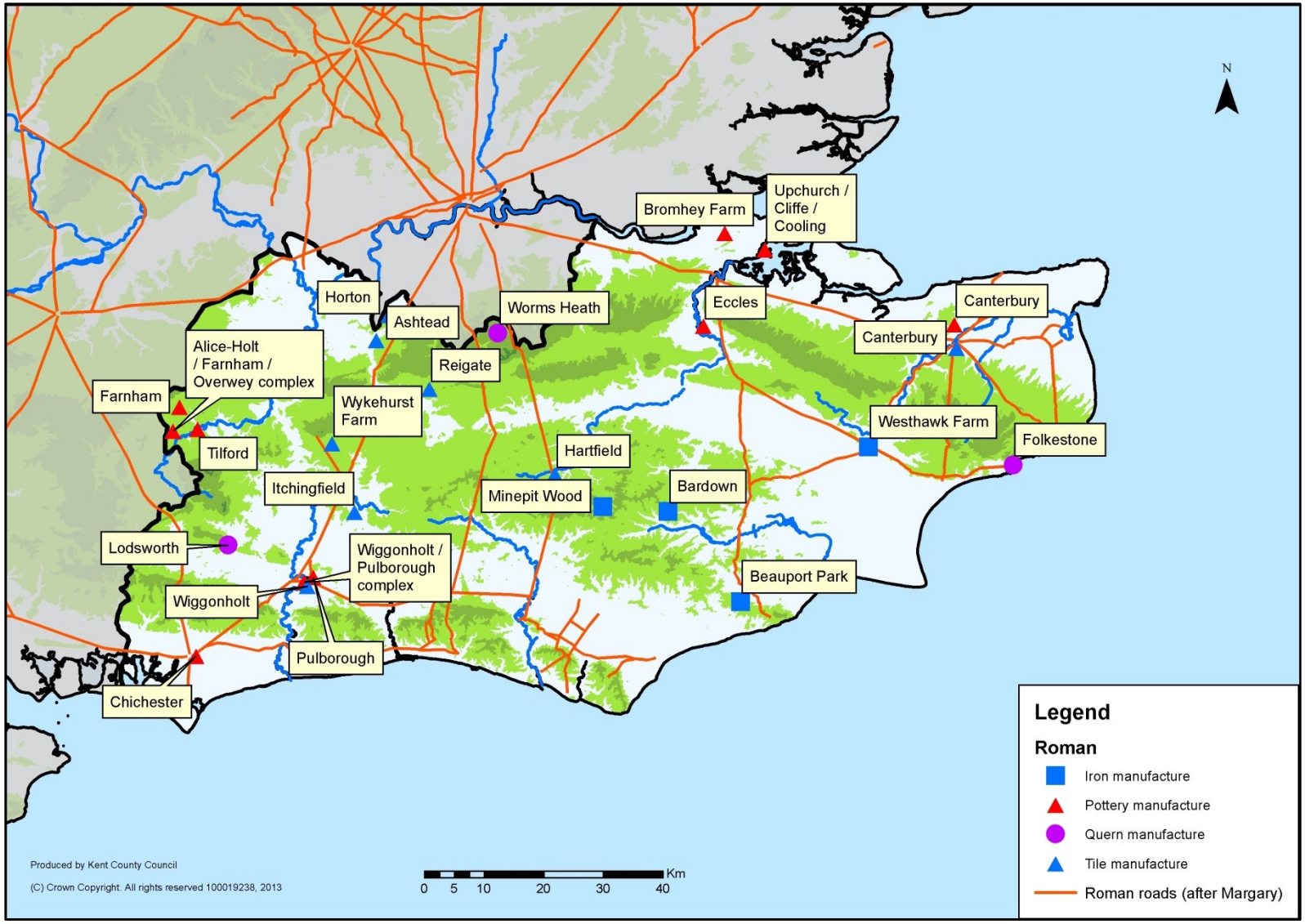

Figure 3 Map showing the location of industrial sites considered in the text

2007, 178), the baths and other buildings (Rudling 1988, 239) imply an imperial/state-influenced workforce at these sites (note also the rare medallion of Antoninus Pius and a statuette of Vulcan at Bardown, Sussex (Rudling 2008, 128-9)). The sites flourished c. AD 125-250, while production at other sites (perhaps in 'private' hands) has continuity from the late Iron Age through to the late Roman period (Cleere and Crossley 1985, 52-86).

The Wealden iron industry has been well studied. Siderite ore was dug out from pits and roasted in hearths to break it into smaller pieces and drive off water (e.g. at Bardown); the resultant ferric oxide was then treated in smelting furnaces (built of clay) fired with charcoal. These were slag-tapping furnaces, prehistoric domed examples probably continuing into the early Roman period and then being replaced by shaft furnaces (a good example was found at Minepit Wood, Sussex). The product was then worked up in a forging hearth into a worked bloom, which could be exported to workshops elsewhere to be turned into implements (Cleere and Crossley 1985, 29-50). These workshops may have been nearby as at Westhawk Farm (Booth *et al.* 2008) or further afield as at the long-lasting industrial area of north-west Southwark (Hammer 2003, 166-7). Recent work on the Bexhill–Hastings Link Road has revealed the substantial remains of a Roman bloomery site with evidence for ore-roasting, smelting, storage and working structures and smithing; this site is, at the time of writing, undergoing post-excavation analysis and will be published in the near future (OA 2019).

5.8 Woodland management

Woodland was almost certainly for the most part carefully managed, at least in the areas around London and other major towns and to supply the fuel for the Wealden ironworks (Bird 1996, 226). Woodland was certainly owned and sold, as evidenced by a writing tablet from the Walbrook Valley in London relating to a five-acre wood in the civitas Cantiacorum, presumably somewhere in Kent (Tomlin 1996). There may also have been considerable use for transhumance, but as always, far more evidence is required (cf. Williams 2003, 234-5). The same applies to the likelihood that there were extensive Roman-period heathlands on the poorer sands (Bird 2004, 76, 84-9).

5.9 Sculpture, mosaics and other building furnishings

Relatively little sculpture has survived, though most of the available evidence has been reviewed by Coombe *et al.* (2015). The Lullingstone busts are fairly enigmatic, most likely representing individuals of 2nd-century date in spite of other suggestions (Toynbee 1964, 59-63; Henig 2007). Similarly, the early bust from Fishbourne may have been a member of the owner's family (Cunliffe 1998, 108). Other sculptured material includes a headless draped figure from Dover, one-third life size (Frere 1977, 425); full size hands with spear and shield from the Worth temple (Blagg 1982, 59) and fragments from a presumably high-status site at Frindsbury near Rochester (Detsicas 1983, 94). The sculpture on the Richborough *quadrifons* would have been

the largest and most complex piece in the region. This dearth of evidence is in marked contrast to other areas of Britain and suggests no significant cross-channel trade in raw materials or finished products, along with apparently no local sculptural habit (Croxford 2007). Pieces such as the Ickham wooden figurine (Clark 2010) may have been more common, making up the shortfall in stone and metal sculpture; issues of preservation could account for their current scarcity.

Fishbourne has evidence for very rich internal decoration, of several different periods, often unparalleled in Britain (Cunliffe 1998, 39-44, 54-89, 111-33). Otherwise, the region has relatively few mosaics (see Neal and Cosh 2009). Scraps from a simple villa like Titsey, Surrey (Leveson-Gower 1869, plate 3) suggest that they might have been far more common than now appears, with failure to survive perhaps partly attributable to being poorly laid, as at Rapsley (Hanworth 1968, 26-7). Evidence from Canterbury suggests that the Butchery Lane mosaic was not an isolated example (Blagg 1982, 54), and there are justly famous mosaics at Fishbourne, Bignor and Lullingstone (Toynbee 1964, 260-5). Fishbourne's mosaics include very early black and white and later polychrome examples like the cupid on a dolphin, with perhaps a bird motif signature (Cunliffe 1998, 129). At Bignor, where the superb late 3rd/early 4th century mosaics show up the poorer quality of an earlier Medusa, there may be another mosaicist's signature, and as well as the fine Europa and Bellerophon mosaics, Lullingstone is particularly of interest for the mosaic motto with a Virgilian reference. Coincidently, the Darent valley has an earlier reference to the Aeneid, on wall-plaster from Otford (Ling 2007, 64-5, 76-9, 84). The curious mosaic pattern in Room 7 of Building 2 at Chilgrove II remains unexplained (Smith 1979, 111-2 and colour plate II; Neal and Cosh 2009, 524-5).

There is very important decorated wall-plaster from Lullingstone, mostly surviving like the portrait busts because of collapse into the cellar, itself preserving a niche with painted water nymphs. Most came from a room above that had been decorated with Christian motifs such as the chi-rho and figures in the attitude of prayer (Meates 1987, 5-46). Wall-plaster from the 'Painted House' at Dover is also very important (Philp 1989) and the scheme of a ceiling painted with a geometric pattern has been recovered at Beddington (Howell 2005, 31, 47). Exterior plastering should also be noted: thus, the Keston tower-tomb was plastered red outside, another tower at Langley, Berkshire, had red-painted pilasters with blue bases against a green background (Blagg 1982, 58-9) and a building at East Farleigh, near Maidstone, Kent, also had external painted plaster (Daniels 2012). A decorative effect achieved by the different-coloured stone found at Batten Hanger is noted (Esmonde Cleary 1994, 289-90) and is suggested for the Titsey temple (Bird 2008a, 67-8); such effects may have been common.

6. Ritual practice

6.1 Treatment of the dead

A review of the burial evidence in the countryside of Roman Britain has been undertaken as part of the *Roman Rural Settlement* project and any future discoveries of burial sites should refer to the third volume (Smith *et al.* 2018). Most of the burial evidence in the countryside is for cremations, though this varies depending on landscape zone (ibid., Fig. 6.9). The comparative lack of inhumations is partly the result of burial in acidic soils.

Developer-led archaeological projects are beginning to significantly enhance our understanding of burial practice in the region. In the northern part of the A2 widening scheme, east of Springhead, a late 1st-century enclosure was found with a cemetery with one cremation within a $2m^2$ burial pit, richly furnished with items including imported pottery, bronze vessels and a gaming board (Allen *et al.* 2012). In a separate enclosure were seven more cremations and burials, one being a female cremation with pottery and metalwork of similar date. The cemetery contained six further graves dating up to the mid-3rd century or beyond, and presumably represents the long-lasting graveyard of a well-off family. Further burials remains were discovered approximately 1km east of this site at the A2 Activity Park, where a small 1st-century AD inhumation cemetery was located on the site of a Middle Iron Age enclosure and may have been related to it, while early Roman cremations were also discovered close to Watling Street (Dawkes 2017). It is becoming increasingly clear that burials provided a key means of demonstrating not only status, but cultural identity as well, which appears to have been particularly important throughout the Roman period (Pearce 2016).

There is a general lack of evidence for villa-related cemeteries, partly because a definite link can rarely be established unless the burials are actually close to villa buildings, as for example around the tower tomb at Keston (Philp *et al.* 1999, 45-59, 76-9) and in the so-called temple-mausoleum at Lullingstone (Millett 2007, 172-3), whereas they were probably usually further away. Recent work at sites such as Snodland, Kent (Dawkes 2015) and Preston East Sussex James (2018), are beginning to shed more light on burial practices at villas. Some of the walled cemeteries and some of the barrows known particularly in Kent (Blagg 1982, 58-9) may have been related to nearby villas.

Several Romano-British barrow cemeteries are known including that related to Canterbury (Millett 2007, 162). The best known is probably that at Holborough, near Snodland, Kent (Jessup 1955), which had evidence for a pyre and grave goods including a folding stool and an amphora suggesting a date in the early 3rd century. There was a secondary burial of a child in a lead-lined coffin. Several other lead coffins are known from Kent while Surrey examples include finds at Southwark, Beddington, Croydon, and most recently at North Park Quarry, Bletchingly, where two lead-coffined burials were found in a small enclosure with four other inhumations—

decoration on the coffins suggest a 2nd-century AD date (Coombe *et al.* 2018, 224-9). Very few lead coffins have been discovered in Sussex (Toller 1977, 35-7, 40).

Large cemeteries have been found at Canterbury, Chichester, Ospringe, Dartford and Springhead; note also recent finds in Southwark (Rudling 1988, 234-7; Millett 2007, 157, 162; Frere 1990, 363-4; Sheldon 2000, 142; Ridgeway *et al.* 2013). Both cremations and inhumations are recorded, and *busta* are now known at Staines, Southwark, Canterbury, and no less than seven at Pepper Hill, Springhead (Booth 2011). Busta have also been reported from Surrey Archaeological Society excavations at Flexford, though the site remains to be fully published (cf. Bird 2016b, 129; Booth 2012, 350). Although many burials at larger settlements were often located in formal cemeteries, there are several instances of apparent 'family' plots. Scattered burials were found at Westhawk Farm as well as a small, mixed inhumation and cremation cemetery (Booth *et al.* 2008). So-called deviant burials are poorly represented in the region; two flexed burials were discovered at Pepper Hill, though these represented a tiny proportion of the total number of inhumations in the cemetery (Biddulph 2006). Infant burials may occur in ritual contexts, e.g. under villas (Rudling 2008, 101) and temples, as at Springhead.

6.2 Religious sites

There is important evidence for belief and ritual from the region (Rudling 2008). Monumental temples used to house the deity seem to be Roman-period introductions. There may have been classical temples at Canterbury and Chichester, but in neither case is the evidence sufficient for certainty. At the latter the dedication to Neptune and Minerva and use of the word *templum* implies a classical structure, but a Romano-Celtic temple cannot be ruled out (Fulford 2003, 97). Debris including marble mouldings and veneers, Corinthian column capitals, and a fluted column shaft from the area north-west of the theatre in Canterbury have been thought to indicate a classical temple (Millett 2007, 158), but the probable precinct includes a Romano-Celtic temple in one corner and it is not impossible that the central position had only a Jupiter column (Creighton 2006, 145-6). The nature of the Dover shrine to the Mother Goddess of Italy is also unknown (Hassall and Tomlin 1977, 426-7), although the word *aedes* suggests a simple structure. Romano-Celtic temples have a general and well-known form, and important excavated examples in the region include Chanctonbury, West Sussex; Lancing, West Sussex; and Wanborough and Farley Heath, Surrey (Rudling 2001; Bedwin 1981; O'Connell and Bird 1994; Williams 2007; Poulton 2007). Although these temples are usually fairly standardised, some variation in construction and plan is known; for example, the shape of the *temenos* at Farley Heath is a good example of an irregular temple enclosure (Poulton 2007, 133).

Religious structures of non-Romano-Celtic form were probably far more common, though these often suffer from a lack of interpretative vigour. Separate religious structures are known at some villas, such as at Rapsley and Beddingham (Hanworth 1968, 17; Rudling 1998, 55-6). Every nucleated settlement possibly had its own shrine

of some type, as for example at Westhawk Farm (Booth *et al.* 2011) and Monkton (Bennett *et al.* 2008). Springhead was a large sanctuary complex and related settlement, with ritual buildings around the main water source, several Romano-Celtic temples nearby and evidence for terraces overlooking the sanctuary with ovens, evidence for feasting, and ritual deposits (Millett 2007, 160-1; Andrews *et al.* 2011). Ewell may prove to have been a similar place, with offerings at the spring, a possible central ritual site, plus numerous ovens and ritual shafts on higher ground overlooking the settlement (Bird 2008a, 66-7). Groups of finds may indicate sacred sites without temples, for example at Frensham Common, Surrey, where numerous coins, miniature pots and a sceptre handle indicate an early Roman ritual site (Graham and Graham 2017). Ritual deposition is possibly represented by semi-complete vessels found at the edge of the Weald at Stepstile Meadows, Reigate (Margetts 2015). Sometimes older monuments like Bronze Age barrows might be venerated (Rudling 2003, 122-3). Ritual deposits in pits, shafts and wells are frequently documented, some with infant burials or other human remains, e.g. Keston, Ewell, Beddington (Bird 2000, 161). It is possible that this practice had its origins in the Surrey/Kent area in the Iron Age (Woodward 1992, 53).

Apart from Neptune and Minerva at Chichester and Italian mother goddesses at Dover there is little specific evidence for deities. Perhaps the most widespread evidence for deities comes from figurines, which are fairly common, such as Mercury at Bodiam, East Sussex (Lemmon and Hill 1966) and the Dea Nutrix at East Kent Access Road (Andrews *et al.* 2015). Figurines of deities and the Lullingstone water nymphs are presumably relevant in this respect (e.g. Blagg 1982, 59) and many figurines were of animals that were representative of gods. In addition, there may have been a boar-related cult in Sussex (Rudling 2008, 128), while dogs and stags were favoured in Surrey (Bird 2008a, 79-80). Possible Jupiter columns are suggested at Springhead (Blagg 1982, 59) and Canterbury. Curiously, Springhead is apparently named for the locality: *Vagniacis*, ‘marshy place’ (Rivet and Smith 1979, 485) and not a deity. Interpretation in the light of evidence from elsewhere needs caution, as deities will have been first and foremost local (Bird 2008a, 80).

Continuity of ritual activity from the Iron Age has been clearly demonstrated at Springhead, Kent (Andrews et al. 2011) and is probable at a number of other sites, e.g. Farley Heath, Surrey (Poulton 2007, 127-9); Lancing, East Sussex; and Worth, Kent (Rudling 1988, 228-9). There is clear evidence for continuity of some rituals, most notably of animal sacrifices, which go back well into prehistory (King 2005, 363-4). Many finds demonstrate offerings, such as sites with fossil sea urchins (Bird 2008a, 79). Care is needed in this context, as there is a lack of organic evidence and more excavations of *temene* are required. Different types of offerings were probably important at each shrine, like the evidence for pigs at Chanctonbury. Animal bone evidence also suggests regular annual festivals with animal sacrifices (King 2005; Allen 2108). Regalia worn at the festivals (chain head-dresses and sceptres) are

known especially from Wanborough and other Surrey sites; some ceremonies may have involved nearby theatres or amphitheatres (see above).

Eastern religions are suggested by finds such as the terracotta pine cones and mural crown pot from Rapsley; similar pots from Chiddingfold (Surrey), Alfoldean, Fishbourne and Beddingham hint at some sort of local link (J Bird 2002). There is not much evidence for Christianity; a ring from Bagshot, Surrey, and lead tanks from near Wiggonholt, West Sussex (Graham 2002; Rudling 2008, 106-7) and at Ickham, Kent (Bennett *et al.* 2010, 217) may be noted, and of course the 'chapel' at Lullingstone, formed out of part of the villa in the 4th century. The fact that there the significant evidence is on wall-plaster is a reminder of how much might have been lost elsewhere. Continuing veneration of the portrait busts shows a somewhat inclusive approach to the new religion (Meates 1979). A late Roman period church is postulated at Richborough, Kent (Brown 1971).

7. Military and defence

For much of the Roman period the only military unit known to have been based in the South-East was the *Classis Britannica*, apart from soldiers at the fort in London and on police and administrative duties, such as the *strator consularis* at Dover (Hassall and Tomlin 1977: 426-7). Although its headquarters was in Boulogne, France, it probably had an early 2nd century fort at Dover, replaced by a larger one around AD 130-140 (Philp 1981). There may have been other places associated with the fleet, indicated by an altar at Lympne, Kent dedicated by the Fleet Prefect, and the use of tiles with CLBR stamps, although the latter might not prove an official link (Millett 2007, 175-6; Peacock 1977). A fleet involvement with Wealden iron production is likely. The two *pharoi* at Dover may be related to the Fleet base, although Blagg (1982, 56) points out that the construction of the surviving example (tile bonding and small blocks) is similar to some of the so-called Shore Forts.

Over a period from the mid- to late-3rd century new forts were built along the coast. The earliest was at Reculver, an old-pattern fort with playing card corners and internal turrets. Its original garrison was a standard unit, *Cohors I Baetasiorum*, possibly chosen for its experience of coastal signalling systems. At around the same time a watch tower was made at Richborough out of the *quadrifons*, with a surrounding earthwork defence (Millett 2007, 142-3, 180). A link to another tower at Shadwell, near London, has been postulated (Bird 2008b, 98-9). Richborough soon gained a stone fort of a newer rectangular pattern, with others in the South-East at Dover and Lympne in Kent, and Pevensey in East Sussex the latest in the series

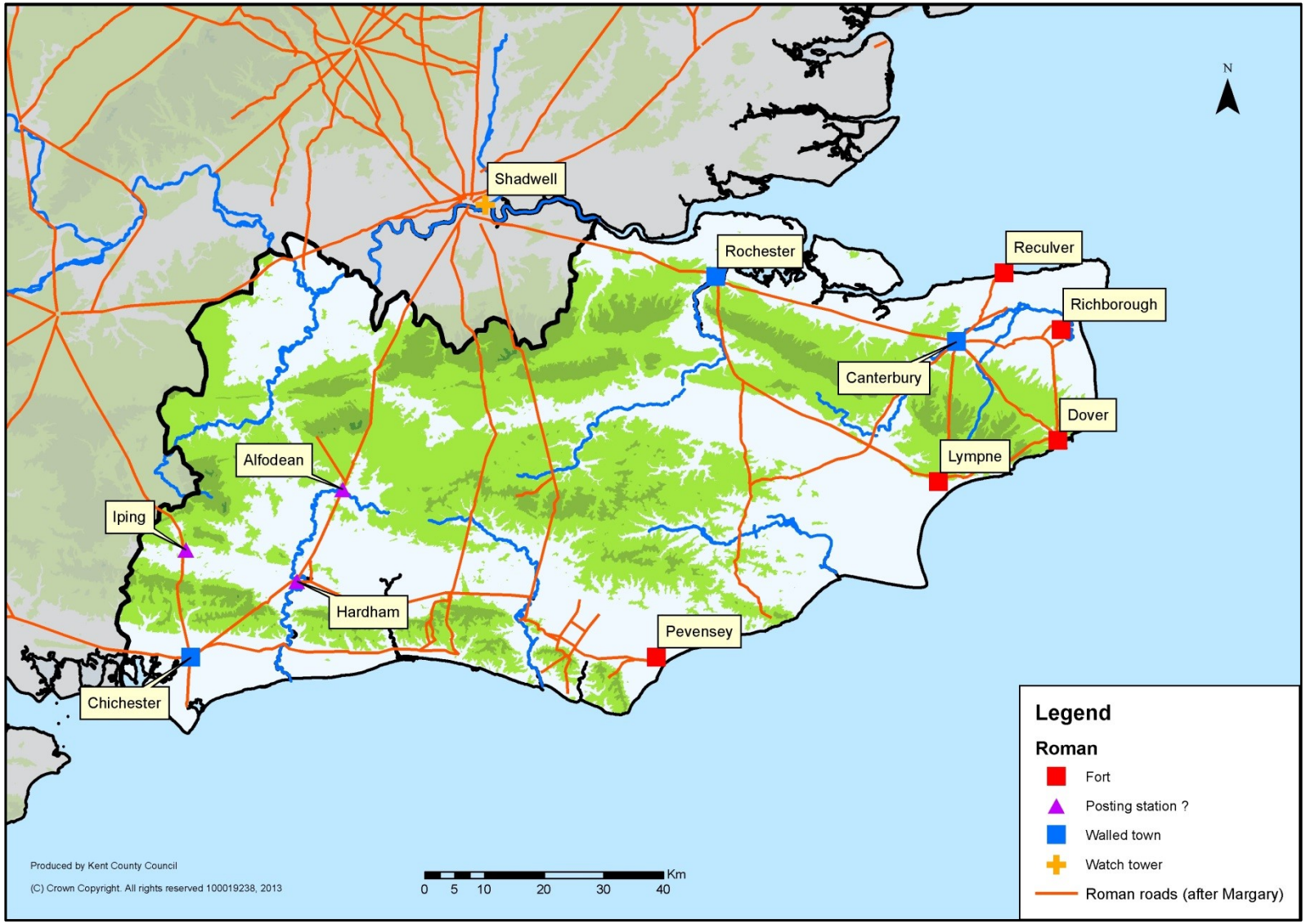

Figure 4 Map showing the location of military sites considered in the text

and the most irregular. Except for the earlier examples, the forts are mostly built of locally available stone (Allen and Fulford 1999), and the later ones have external drum bastions and greensand or tile bonding courses. The purpose of these large defended enclosures is still not clear. They seem to be mostly empty, although garrisons are named in the *Notitia Dignitatum*, which also places them in the frontier section under the command of the Count of the Saxon Shore (Johnson 1976, 63-71). Pearson (2002, 130-8) has argued that the forts were intended as bases for the storage and control of supplies between Britain and the continent, though this theory has yet to gain widespread approval. Nonetheless, the Saxon Shore's association with a successor (or successors) to the *Classis Britannica*, last attested in the mid-3rd century, remains unclear, and more work is needed on related harbours (Pearson 2002, 99-124).

Rochester received a town wall (of flint) at some time around AD 200, yet only 9.5ha was enclosed, probably as a matter of urban status (Esmonde Cleary 2003, 81-2). It is not clear why there is such a contrast to Canterbury and Chichester, which continued undefended probably until the later 3rd century, but then gained large enclosed areas (53ha and about 40ha) with some open space. Both had walls fronting ramparts, with internal and later external towers at Canterbury, and external drum bastions added later at Chichester (Magilton 2003, 162-5). The 'empty' areas may have been intended to provide protected food supplies for man and beast or a refuge for country dwellers (Wacher 1995, 78-81); there could be some parallel here to the 'empty' Shore Forts.

There is little evidence for the defence of other settlements, with the exception of the so-called posting stations, earthwork enclosures being known at Hardham, Alfoldean and Iping (Rudling 2003, 114-5), and more recently at Bridge Farm, Upper Wellingham, which, along with evidence from Neatham, Hampshire (near Alice Holt, Surrey), suggests that defensive roadside circuits were being constructed around the late 2nd/early 3rd century AD and may not have lasted into the 4th (Millum 2013; Millett and Graham 1986). It is uncertain, however, exactly what these circuits were defending as it appears that settlement remains occurred beyond their limits.

8. The end of Roman rule

The region is a key area for the transition from Roman Britain to Saxon England. There is considerable evidence for decline at many rural sites well before the end of the 4th century; along the HS1 transect in Kent most had apparently ceased occupation before the mid-3rd century, while others saw a marked contraction (Booth, 2011, 334-338). Sussex villas, especially on the coastal plain, also saw early decline, as did some Surrey villas (e.g. Rapsley and Ashtead). On the other hand, there is evidence for some large late villas, as at Bignor or Darenth, and non-villa rural sites in Sussex may be less affected (Rudling 1988, 51). Some evidence hints at raiding or imperial in-fighting (as with the Carausian episode), for instance the fire

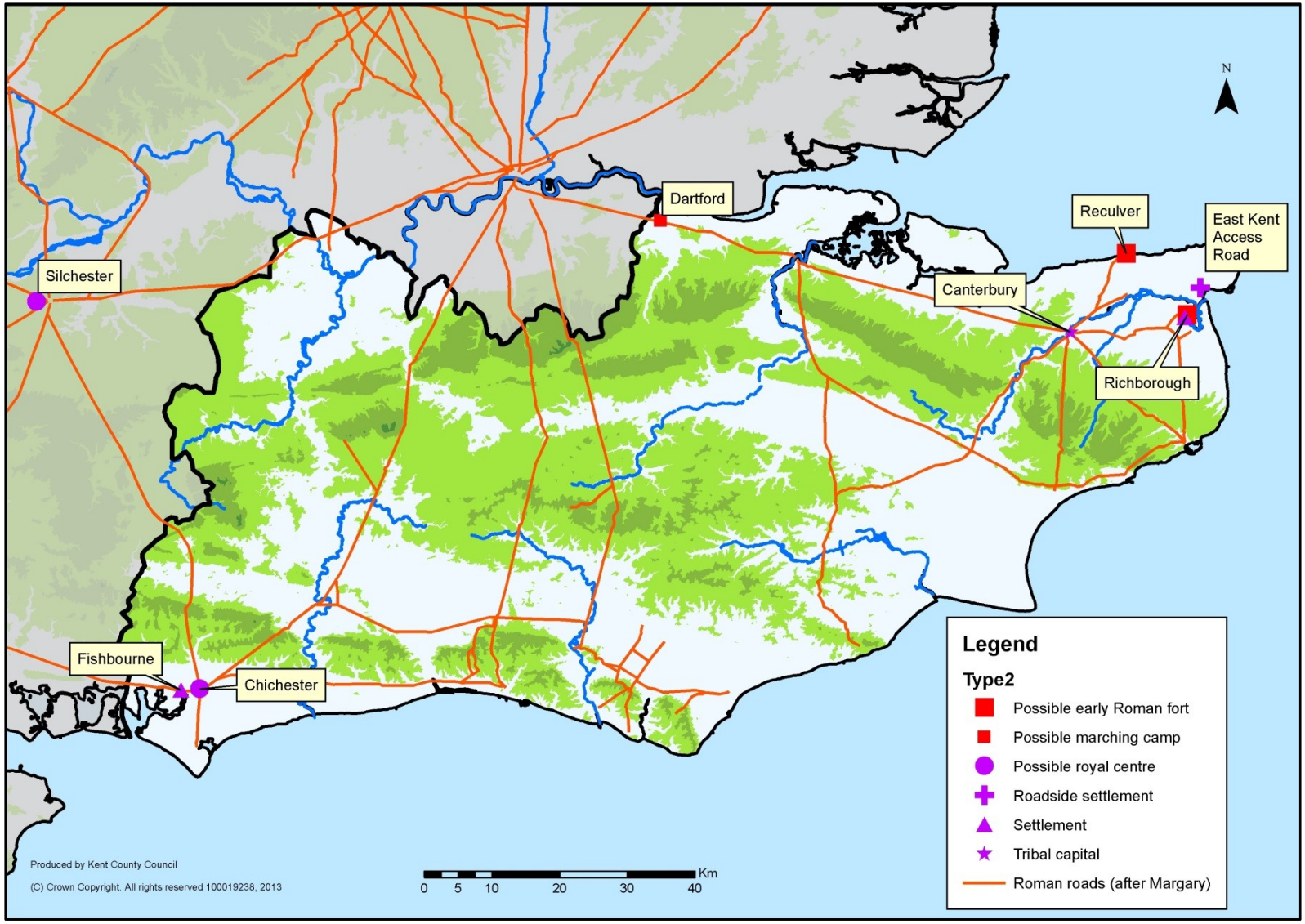

Figure 5 Map showing the location of transition period sites considered in the text

*a*t Fishbourne around AD 280-290, and it is possible that a combination of greater insecurity and the creation of larger land-holdings, even different land use, is the explanation: change as much as decline. The poor quality of the surround to the Lullingstone mosaics (Millett 2007, 173) highlights a general decline in interior decoration services (Rudling 1988, 217), though also demonstrates their continuation at least in some form. The relief patterns on tiles from this site otherwise unrecorded north of the Weald implies that it was necessary to scour the region for reusable tiles; the situation is paralleled at Chatley Farm, Surrey (Betts *et al.* 1994, 27-8), where it has been suggested that there were difficulties in making the late bath house function (Frere 1949, 88-90). Lewit (2003) explores the possibility of continuing occupation of elite rural sites (with some regional relevance), but in very different form.

Although the evidence is patchy, it is clear that some form of town life continued into the late Roman period and perhaps beyond. There are late cemeteries at Chichester and Canterbury, and plentiful late coinage at Rochester. The first two only received their walls relatively late within the period. Roman Ickham, known for its mill, appears to have survived into the early 5th century (Bennett *et al.* 2010), while a successor settlement at Wickhambreaux, Kent (note the place-name), is only a short way upstream along the Roman road to Canterbury. Continuity of a sort is implied by the recent discovery of a late Roman-type burial on the edge of the Saxon-period burial ground in Croydon, which has early Saxon material, including elements from a mid-5th century Roman officer's belt set. This and similar material links a line of cemeteries from the Croydon area round to Mucking, Essex, several of them close to villas, although there is little evidence to show that this proximity is significant (McKinley 2003, 12-13, 104-11). Occasional sites like Bishopstone suggest the possibility of continuing occupation (Rudling 1998, 51), as do the place-names in *wealh* and other possibly significant words, which in Surrey for example seem to occur in proximity to the Saxon cemeteries (Bird 2004, 171-4).

Germanic troops and other outsiders had been present in the region at least from the later 3rd century (Allectus' Franks and the Shore Fort garrisons). High-ranking late 'Roman' officers were often Germanic, probably including Nectaridus, 'Count of the maritime tract' killed in the disaster of AD 367, whose command presumably included the 'Saxon Shore' (Birley 2005, 428-429). It is surely most likely that the earliest 'Saxons' were employed in the same way by the surviving 'Roman' authorities in the 5th century. How this relates to the Shore Forts is unclear; some are thought to have been abandoned in the 4th century (e.g. Lympne), whereas others like Richborough continued until the early 5th (Millett 2007, 181), and Pevensey (*Andredesceaster*) was supposedly still in use in AD 491 (*Anglo-Saxon Chronicle*).

Research Agenda

1. Introduction

Despite the number of Roman sites known from the region surprisingly little is collectively known or understood about key issues relating to the period. The existence of substantial unpublished backlogs is a fundamental issue that must be addressed. Additionally, key sites require revisiting to enhance data gained through previous investigations. Other limitations on available knowledge have been somewhat addressed through the more systematic approach to excavation brought about through developer-funded archaeology.

2. From the Iron Age to Roman Britain

The period between Caesar's raids and the Claudian conquest needs to be better understood. The influence of Gallic or Roman contacts on all aspects of society and material culture must be identified. The structure of society, nature of trade and examples of continuity or change, pre- and post-conquest, need mapping out.

Specifically: were there instances of early contact or Roman presence in Britain pre-conquest? Did the native elite remain in place post-conquest; did they adopt, adapt or resist? Can the impact of conquest be detected in settlement changes in this period? Is the dearth of evidence of military presence genuine, and if so, what does it signify?

3. Military activity

There were three significant early instances of Roman military contact with the South-East; Caesar's two incursions and the Claudian conquest. Despite the historicity of these events, little evidence for them is known at present. Greater work is necessary on all instances of early Roman presence.

Are there any physical traces of Caesar's troops' in the region, either direct or indirect? For example, are there definable changes in late Iron Age sites (abandonment, fortification or intensification) that might evidence stress of or response to conflict/contact? Are there objects (weapons, equipment, personal items) that could relate to troops? Are there any fortifications, or even siege works, built by the Roman troops?

Debate still continues concerning the landing place(s) for the Claudian troops. Is there any potential for identifying direct evidence of the Claudian conquest?

Following the period of conquest, is there evidence for continued military presence, besides the Classis Britannica? Can our understanding of the Classis Britannica, and its relationship with inland sites, be enhanced? Is there evidence for military presence or involvement in other sites?

What form did the late Roman military activity take in the region? Can our understanding of the Shore Forts be enhanced via evidence from external sites?

4. Roads and transport

The road network requires re-examination. Recent work in West Sussex, and a pilot project in Kent, suggests significant revisions are possible. This enhanced understanding of the network permits identification of new sites and new site types. Beyond basics such as route, the network needs to be examined for insights concerning construction techniques, maintenance and dating of these, plus final use.

Bridges and fords are of importance, particularly in light of any re-examination of the road network. The possible use of ferries to cross the rivers Medway and Stour in Kent as integral parts of the road network needs further research.

All elements of ports need further investigation, from wharf and mole construction (dating and techniques) to waterside structures. Any trace of vessels (whether wrecks or reused timbers found elsewhere) is of great interest.

5. Rural settlement

Examples of continuity and change in rural settlement patterns and types throughout the Roman period are important. All instances of rural settlement sites are valuable resources that require mapping, phasing, dating and comparison with other known examples in order to determine patterns of change or regionality.

What building types are used on rural settlements? How common are roundhouses and how late do they remain in use?

Villa sites remain over-represented in terms of known rural settlement sites but conversely are not well-understood in terms of function, layout, phasing, origins or end of use. Particular attention needs to be focused on ancillary buildings forming part of the villa complex, especially ‘detached bath houses’ and aisled buildings. Sites which have been excavated but not properly published must be resolved. An emphasis should be placed on non-intrusive means of investigating such sites where there is no pressing threat of development or on-going damage from agriculture. The villas’ position within the wider landscape also needs investigation, potentially identifying new examples from ‘gaps’ in known distributions, while a much greater emphasis on environmental evidence from these sites would be very beneficial.

6. Urban settlement

Urban centres within the region remain poorly understood, individually and collectively. Existing datasets need to be consolidated and re-examined in order to gain a better understanding and to assist in targeted investigation of specific areas, buildings, features or questions as sites become available within modern cities and towns. Even sites previously excavated and heavily developed since the Second World War can be highly informative when re-excavated under modern conditions (as shown in examples from Exeter).

The development of town defences needs to be better understood, and opportunities to date and characterise this phenomenon across the region need to be pursued.

Suburban sites require greater investigation, being tied into the development of their associated urban centres.

The so-called 'small towns' and roadside settlements are not well understood, in terms of development, function, plan and organisation. Lesser nucleated settlements, such as Westhawk Farm, Kent, need to be placed in their wider surroundings, in terms of how they interrelate with other rural and urban settlements.

7. Beliefs, burials and the population

Religious activity is not well understood in general. There has been too great a focus on temple sites and elite modes of expression. Greater attention is necessary on smaller less-monumental sites; these were likely to have been the more common foci of experience for the majority of the population on a daily basis. Instances of structured deposition, both on and off site, need to be catalogued and compared on a regional scale. Attempts to fit this small-scale belief activity into known cultic practices and to assign names to deities should be avoided in preference for a focus on the means of expression and the choice of site for this action type.

There exists a growing body of evidence relating to small scale rural cemeteries, down to isolated clusters of cremations or inhumations, located within field systems. This data requires consolidation and cross-site analysis. Burial practices in general need detailed analysis, specifically in light of information gained from recently published cemeteries (Pepper Hill, Kent (Booth 2011)), but also looking in more detail at individual burials and cemeteries as a whole. Variations in deposition, inclusions (food offerings in particular) and distribution all need analysis on a regional scale, though frequently they also need better recording in the first instance.

Existing and newly discovered burials would benefit from isotope and DNA analysis. The movement of peoples within and from without the Roman empire is an emerging area of potential. Given the South-East's position in relation to the provincial capital and role as a route of transit to and from the continent, it is possible that rural and urban populations were more diverse than has been realised. Such analysis also

potentially enables identification of under-represented social groups. Isotope analysis has the potential to shed important light on diet, differentiating between urban, rural, coastal, rich and poor. Further research is necessary on the demographics of the Roman population in general.

Dating remains a major shortcoming in relation to burial evidence. Radiocarbon samples need to be collected as a matter of routine. It is thought that there are more earlier inhumations, but these have largely gone unnoticed. Such dating is also especially valuable as it may shed light on phasing and ultimately the end of use of cemeteries.

8. Craft, industry and domestic consumption

Field systems, and their relationship to preceding and succeeding systems, need to be better understood. Areas of widespread development present an opportunity to collate evidence of the scale of systems, both via re-examination of excavated evidence and through future targeted intervention. A consideration of areas that were not utilised for arable production should also be approached, with attention given to areas of pasture and of woodland that could be identified through targeted environmental analyses.

There is a need to examine the evidence of crop assemblages collectively, both in terms of types of crop grown and practices of processing and storage. Regional patterning may exist within this data. Likely circumstances for preservation need to be identified so as to permit targeted investigation to be included in specifications for developer funded excavations. Environmental evidence in general needs to feature more prominently in such work, and to be subjected to synthesis.

The introduction of new crop types, technologies and agricultural practices needs to be better considered. It is possible that viticulture was common across the region. The apparent absence to date may stem from differences in planting practices, with the methods employed in Northamptonshire not used in the South-East.

Faunal remains need to be consistently examined and published. A regional synthesis may be possible, indicating variations in production practices and also in butchery and processing (salting for instance). The presence and significance of unusual faunal remains needs greater analyses: deer, fish and fowl principally. In relation to fishing, and shellfish cultivation, any evidence is of great interest. In general, there needs to be a dedicated research effort starting with on-site sampling to recover the important faunal evidence.

Sites spanning the Iron Age and Roman period are of particular interest in relation to rural production in terms of what evidence they may provide for continuity or improvements. The same is also true for related technology.

Any evidence relating to watermills is of importance. A key question is simply how common they were. Details of the technology used in the mills is also of interest.

A review of coin evidence from the region should be conducted, in order to plot change over time and space, to test whether there is a late collapse in low denomination coinage and in an effort to potentially identify centres of activity on the regional scale. The data collated by the Portable Antiquities Scheme offers a rich resource enabling such questions to be tackled now. On site coin recovery also needs careful consideration. Anecdotal evidence suggests that coin size and the use/non-use of metal detectors can significantly impact on recovery rates from excavations, potentially creating false impressions of coin frequency and use. There is a need to re-evaluate methodology on Roman excavations.

All elements of the Wealden iron industry are deserving of further investigation. Identifying distinctions from later phases of extraction and processing would be of value. Is it possible to determine the level of official involvement in the industry?

Salt production in the region needs further examination, particularly in relation to associated activities on saltern sites and dating in general.

Stone extraction sites need further research, in terms of likely quantities removed and where this material was sourced from.

The evidence for the pottery industry needs re-evaluating. Any opportunity to investigate production sites is an important one. The same holds true of tile manufacture. Relationships between production sites also need to be explored.

9. Landscape

The landscape is poorly understood in terms of vegetation (specifically woodland and whether or not it was significantly managed—see above) and coastline. More work is necessary on pollen and soil samples to determine basic characteristics of areas during the period.

The existence, or non-existence, of centuriation needs to be conclusively determined via targeted investigation of elements claimed to form part of such systems.

10. Late Roman Britain and the Anglo-Saxon period

How do the urban sites change in the late Roman period? Is activity concentrated in certain sites or parts of sites? Do activity types change within and immediately around urban sites in the later part of the period?

What impacts on the landscape came about during the later period and into the sub-Roman phase? Are there discernible changes in agricultural practices and re-forestation?

The relationship between early Anglo-Saxon sites and Roman sites needs further exploration. Older excavations could be reviewed for evidence of continuity or reuse of sites. Instances of 5th and 6th century activity on such sites warrants careful scrutiny.

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