Landscape, Settlement and Materiality

Aspects of Rural Life in Kent during the Roman Period

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6 "Things Called Villas"[i] and other buildings of the Roman era in the Kentish countryside

6.1 Introduction

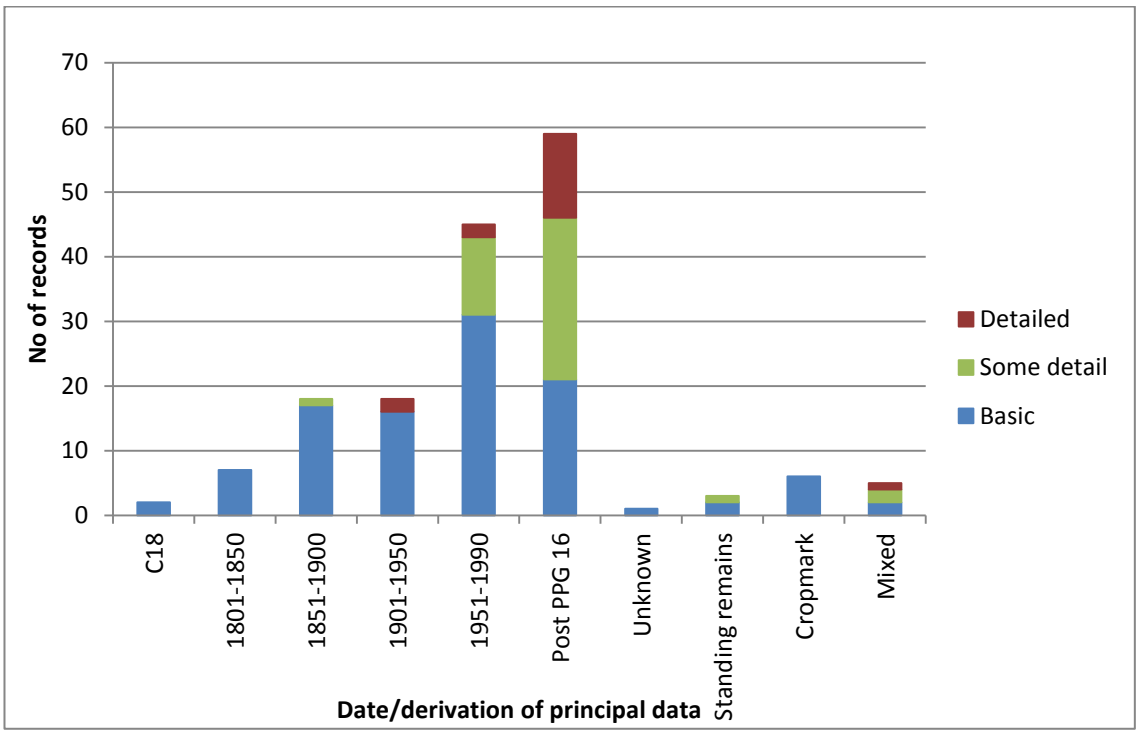
Buildings are one of the ways in which humans inscribe meaning upon the landscape and the advent of permanent, brick- and stone-built structures must have reflected fundamental changes in the way in which the inhabitants of Kent perceived their place within it. Fortifications at the ports in the east of the county would remind all entering or leaving of the new order and the power of the military organisation which enforced it. Official buildings in Canterbury required new modes of behaviour when relating to the authorities, whether to pay taxes or to participate in the administration of government in the canton. *Mansiones* facilitated the passage of long-distance visitors through the region and together with the road system were a physical manifestation of Kent's connectedness to the wider Roman world. Large private properties spoke of the enduring prerogatives of specific families or individuals to land-rights and held a raft of implications depending on whether one was owner, dependent, client, employee or slave. Successful farmers or businessmen of more modest means could likewise proclaim their position in society by erecting a house in the new style.

The buildings of Romano-British Kent are thus more than a simple index of 'Romanization' or competitive emulation amongst the elite as they formed new, enduring, visible foci in the transformed landscapes of life, leisure and of work.

Discussion of the rural buildings of Roman Kent has tended, unsurprisingly, to focus on villas and villa estates (Detsicas 1983; Millett 2007): a number of these are well known, if not well understood, whereas other types of settlement have proved more elusive and even less easy to characterise. Other types of building and settlement exist, however, and our knowledge and awareness of these has increased significantly over the last two decades. This chapter aims to consider aspects of the chronology, distribution and morphology of these better known sites within the context of their settings and the broader settlement pattern.

6.2 The nature of the dataset

The dataset utilised for this chapter comprises records from 165 sites, not including those likely to represent roadside settlements (Appendix 4). Some of these, particularly the villa estates, have multiple buildings. In common with all other areas of rural settlement evidence, the data are of highly variable quality. Over 90 records derive solely or in part from discoveries made prior to 1990 and although on paper the number of discoveries is biased strongly to the latter part of the 20th century and more recent work, the number of sites which at present yield detailed information is very small (Fig. 6.1).



33Fig. 6.1 Dates/derivation of data and level of detail recorded

This is due in part to the comprehensive nature of the dataset which includes a wide range of evidence, from scatters of building materials to full excavations. Older excavations frequently have scant recorded details, whereas a significant number of post-PPG 16 interventions have yet to come to publication. A number of recent excavations have been circumscribed through the nature of planning and project briefs and thereby restricted to the constraints of key-hole interventions and/or the requirements for preservation in situ: a newly-discovered small villa at Fairlawn, Plaxtol (Wessex Archaeology 2010), for instance, was only partially revealed and planned with no excavation of the interior undertaken. Dating of the evidence is a persistent

problem, not confined to older discoveries: although the phasing of the villa at Minster is comparatively well-understood, for example, a lack of well-stratified material directly associated with use of the buildings hampered the dating of these phases (Parfitt et al., 2008. 331).

The sites can be broken down in terms of building character as follows (Table 6.1):

Character of site	**No of sites**
Villa complex	20
Villa	21
Probable villa	8
Bath house only	3
Multiple buildings (not recognisable villa complex)	14
Rectilinear masonry building only	6
Rectilinear timber building only	7
Roundhouse only	5
Sunken-featured structure only	8
Temple/shrine only	2
Mausoleum only	1
Other/unknown*	70

*including building materials only

Table 6.1 Character of sites

As indicated by Reece's (1988) term "Things Called Villas", the definition of the word 'villa' is perennially problematic. Here it is used generically to indicate a rural, stone-founded,[ii] rectilinear domestic building with or without accompanying buildings. The figure here is conservative and it is probable that the actual number of buildings answering to this description was much larger and the divisions between the categories above are sometimes a little hazy owing to both the incomplete nature of the evidence and the need for subjective judgement.

As there are a significant number of sites with multiple buildings, the data can be analysed again by the occurrence of individual building types (where known) (Table 6.2). These categories overlap: shrines, or possible shrines, for example, may be discrete sites or elements of villa houses.

Building type	Definite examples (no of sites)	Cropmarks (no of sites)	Possible examples (no of sites)
Villa house	31	4	13
Aisled building or granary	15		
Masonry rectilinear (other)	18	2	
Timber rectilinear (other)	11		
Roundhouse	7	1	1
Sunken-featured structure	8		2
Cellared building	10		
Bath house/wing	20		2
Masonry other	37		2
Timber other	5		
Temple/shrine	5		3
Mausoleum	3		

Table 6.2 Types of Roman period building found in Kent (overlapping categories)

The data can also be analysed to show which types of ancillary buildings of recognisable form are most associated with villas and villa complexes (Fig. 6.2). These are most frequently bath houses and wings, followed closely by aisled buildings and granaries. The only category which appears never to be associated with villa sites is that of sunken-featured structures.

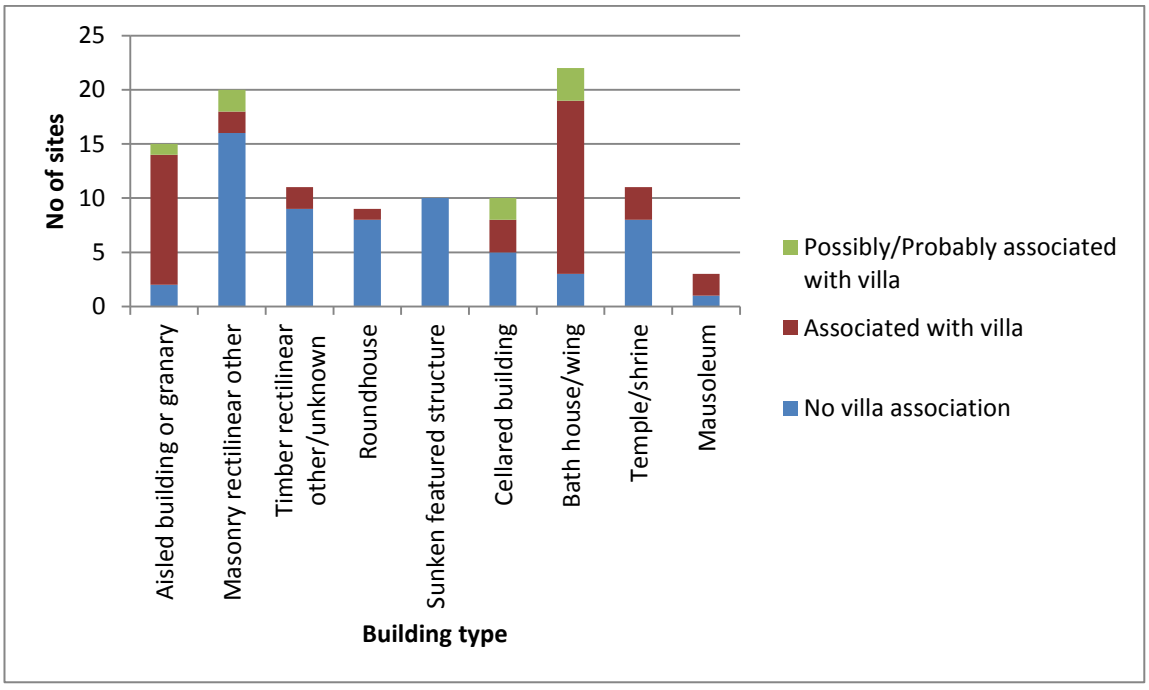


Fig 6.2 Buildings and their association with villas

6.3 Timber buildings

Although the stone-founded villas and their associated buildings dominate the known archaeological record, timber structures must have been at least as common and were almost certainly the norm prior to the Early Roman period. Only a handful of these timber buildings had been recorded prior to the 1990s, however, and it is only in the last couple of decades that the potential extent of this varied class of structure has begun to be appreciated.

6.3.1 Roundhouses

It is reasonable to assume that roundhouses were a common feature of (particularly earlier) Romano-British rural settlements in Kent, but we have little evidence for them; in fact we have little evidence for roundhouses in the preceding period, either. Information on the few roundhouses of potentially Roman date known from rural sites is summarised in Table 6.3. These examples are widely, but thinly distributed (Fig, 6.3) and can be supplemented by further examples from the nucleated settlements of Canterbury, Westhawk Farm and Springhead.

Although post-holes have been found, the evidence is predominantly of eaves-drip gullies; the same is true also of the roundhouses found at Canterbury (Blockley et al. 1995, 32-36), Westhawk Farm (Booth et al. 2008) and for a group of three Early Roman circular structures at Springhead (Andrews et al. 2011, 37-41) where although there were floors, some indications of internal roof supports and in one case a section of drip gully, there was no evidence of external post- or stake-holes. A further circular structure at Springhead Property 11 (Andrews et al. 2011, 125) was evidenced by a clearly defined clay floor but only a short arc of stake-holes. These, along with the lack of any further examples from the HS1 sites may suggest that Late Iron Age and Roman roundhouses in Kent in general left somewhat ephemeral remains. Booth (2011, 274) consequently suggests that they were of above-ground construction, possibly using internal post-pads and wattle or cob exterior walls. Nevertheless, post-built roundhouses were a feature of Late Iron Age settlement on Thanet as witnessed at the Late Iron Age "village" at East Kent Access Zone 6 (Oxford Wessex Archaeology 2011).

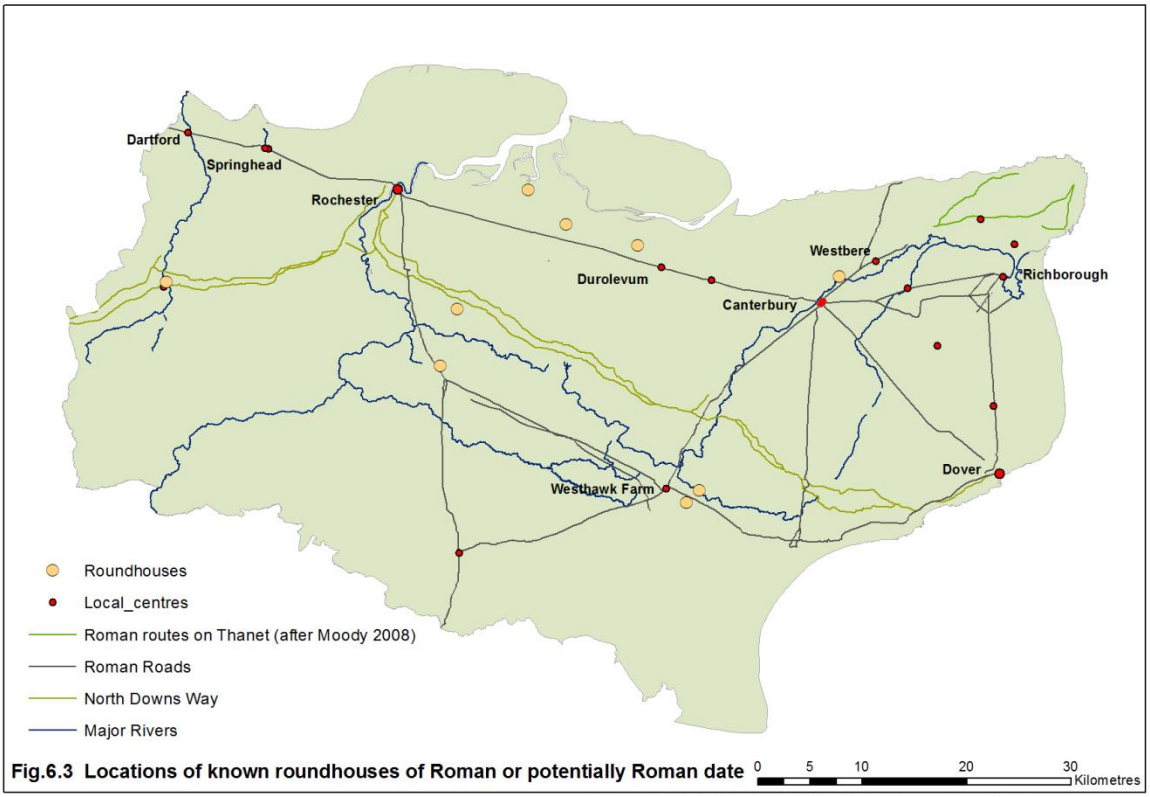


Fig.6.3 Locations of known roundhouses of Roman or potentially Roman date

HER No	Site name/location	Summary	Type of Site	Range	Notes
None	North of Deerton Street Farm	Two eaves drip gullies	Occupation site with possible quarry and hollow way	70-100	
TQ 55 NW 6	North of Otford	Hut circle with chalk floor & traces of posts	Unknown	"Romano-British"	Observed by G.W. Meates
TQ 75 NE 374	Thurnham Roman Villa	Two eaves drip gullies	Villa complex	60-70	associated with 4-post structures
TQ 75 SE 141	East Field, Furfield Quarry	Eavesdrip gully and entrance postholes	Multiple	c. AD 45-100	
TQ 86 NE 4	Lower Halstow	Roundhouse floor with preserved withies	Roundhouse	Unknown	Site produced later C2 pie dishes, but also grooved & furrowed wares.
TQ 96 NW 23	Swale	4 smallish ring ditch cropmarks	Roundhouse	Unknown	Close to Roman tile & pot findspot
TR 03 NW 16	Waterbrook Farm	Eavesdrip gully	Constantly evolving settlement with multiple structures	Mid-late 1st century	
TR 03 NW 90	Park Farm East, Ashford	Curvilinear and ring ditches indicating 12 roundhouses	LIA-ER transitional rural site with evidence of metal working	LIA-Early Roman	Roundhouses not necessarily all contemporaneous
TR 16 SE 88	Shelford Farm Estate, Canterbury	Possible eavesdrip gully	Possible LIA-Roman farmstead	LIA - early Roman	

Table 6.3 Roundhouses of potentially Roman date

Although evidence of Late Iron Age occupation not uncommonly underlies the villas of Kent, Thurnham (Booth 2011, 279-283; Lawrence 2006) is the only site at present known where a direct development from roundhouse to villa can be seen. Evidence of roundhouses was also found adjacent to Sedgebrook Villa, Plaxtol in the 1980s (T. Connell pers. comm.; it is not clear whether there was a gap in occupation or not) and, less certainly, at the Progress Villa, Otford.[iii] Where dated, Kent's rural Roman-period roundhouses are mostly from the later 1st century AD. This is also the case for roundhouses from larger settlements: at Westhawk Farm, they mostly dated from Phases 3 and 4 (AD 70-200), at Canterbury from the late 1st century BC to AD 70/80 and at Springhead from the late 1st to early 2nd century AD.

6.3.2 Timber rectilinear buildings

If rectilinear buildings are marginally better represented, it may be only because the majority of known examples are fairly substantial and of post-built construction. A handful of more ambiguous timber building remains indicates the likely existence of further, less substantial structures: it is only reasonable to expect that timber buildings existed in large numbers, but perhaps, like roundhouses, constructed without earth-fast posts (to avoid rotting).

Just one of Kent's aisled buildings (Furfield Quarry Building 6; Mackinder 2006a) seems to have been entirely constructed from timber, although a rather irregular rectangular arrangement of post-pits and holes at Waterbrook Farm (Rady 1999) has been suggested to represent the internal posts of an aisled building. Both these examples are early, being dated between the early 1st and early 2nd century. The aisled building at The Mount Villa, Maidstone (Houliston 1999) is dated to c. AD 175-225 and is its earliest known structure. Only the southern end of the building plus what is assumed to be the north (short) wall were excavated. The north wall was of masonry construction and faced a small hexagonal water basin (a possible shrine) leading to conjecture that this end of the building was domestic in nature (Fig. 6.4). Otherwise the evidence points towards grain storage and possible brewing. This building, or at least its southern end, was replaced by a second timber post built building on a different alignment somewhere within the same time frame.

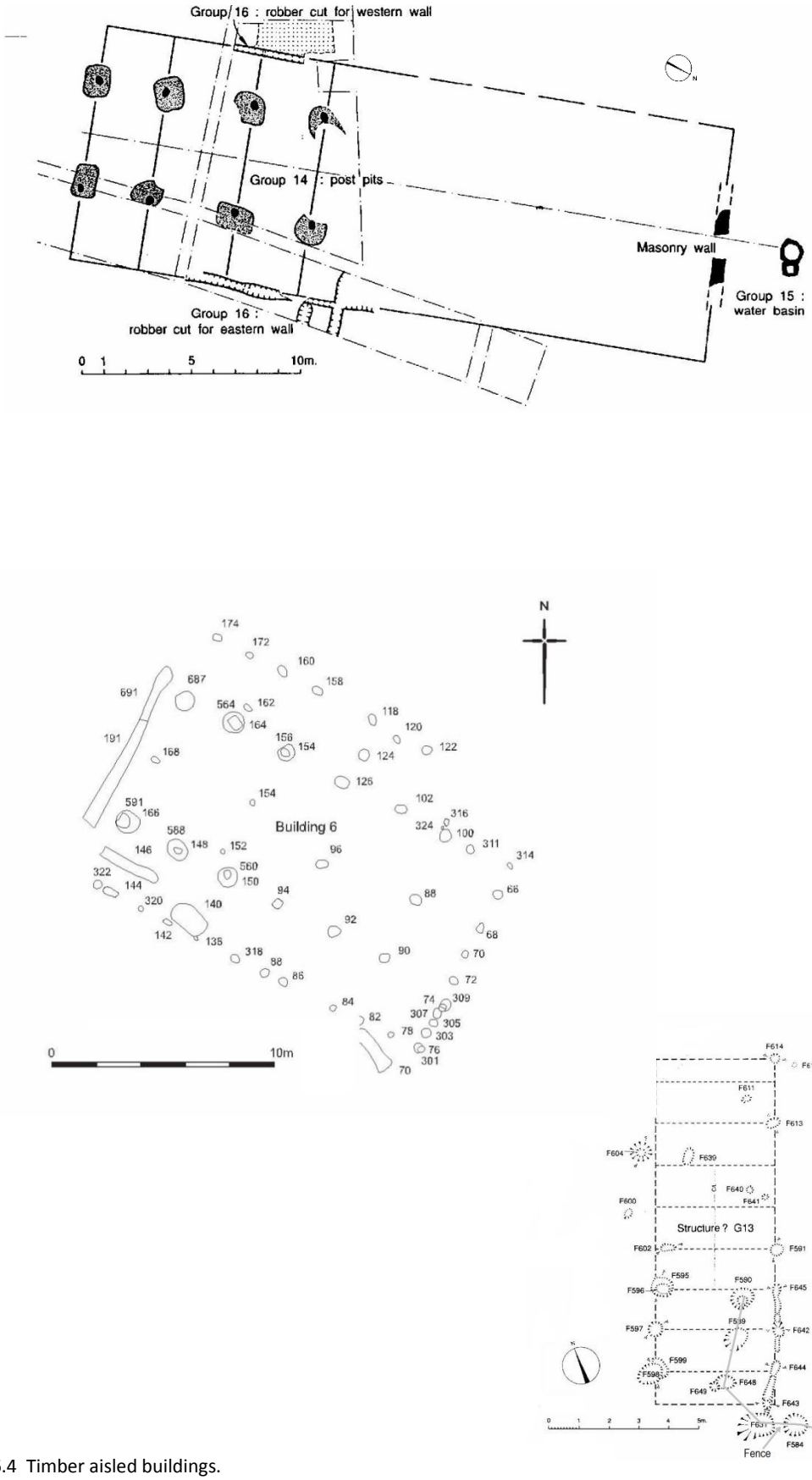
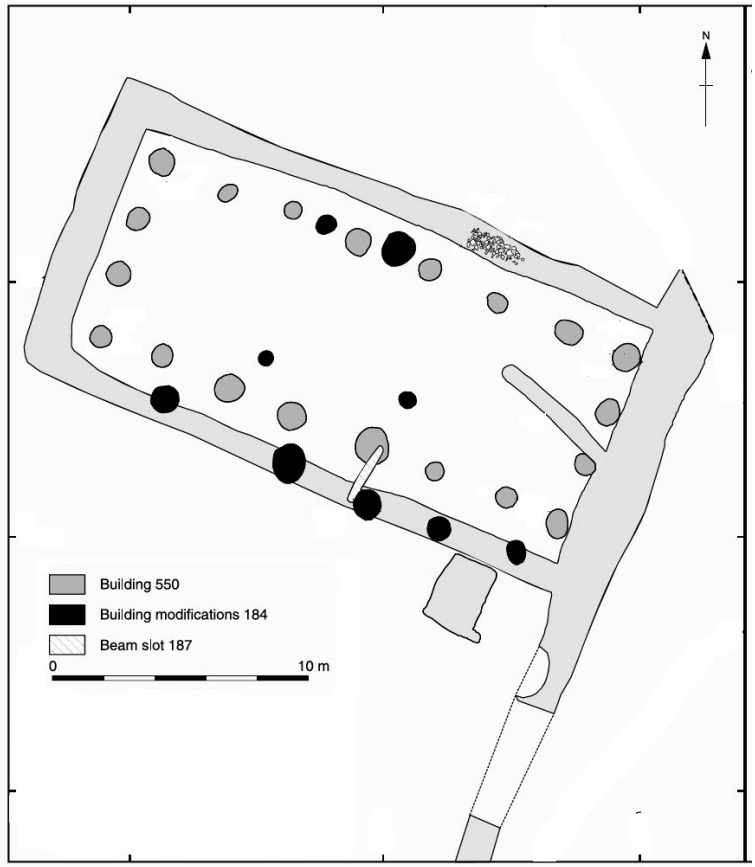


Fig. 6.4 Timber aisled buildings.

The Mount (top; adapted from Houliston 1999, Fig. 4)
Furfield Quarry, Building 6 (centre; adapted from Mackinder 2006a, Fig. 10)
Waterbrook Farm structure G 13 (bottom; adapted from Rady 1999, Fig. 14)



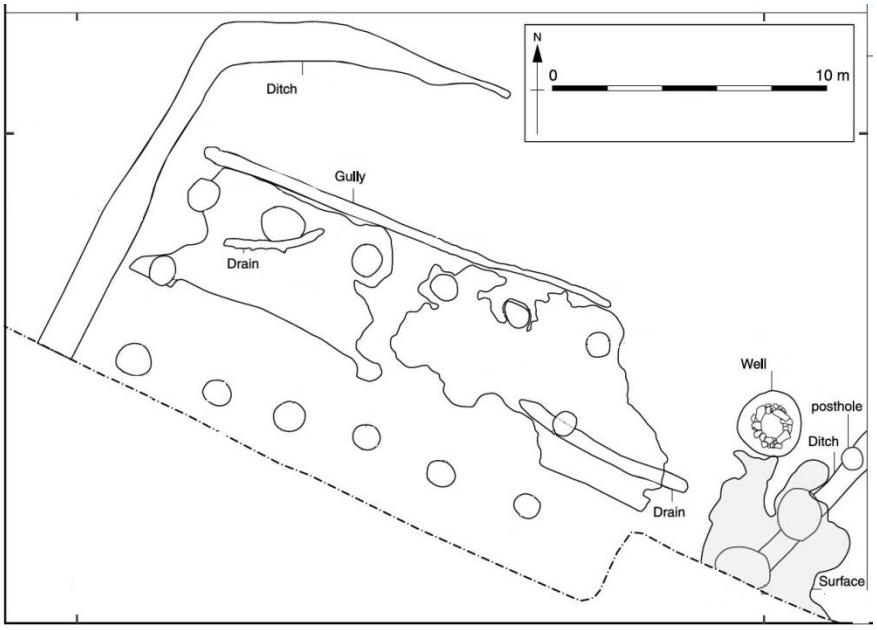


Fig. 6.5 Paired-post buildings with additional post-holes in the short sides:

Bower Road, (top; adapted from Diez 2006b, Fig. 9)
Thurnham (bottom; adapted from Lawrence 2006, Fig. 43)

Among the substantial rectilinear buildings are a group that Booth (2011, 275) has recognised as belonging to a distinct, regional tradition (Fig.6.5) The buildings are characterised by carefully paired post settings (as found in aisled buildings) but with no aisles and distinguished from other simple rectilinear post-built structures by the presence of an additional post setting or two on each of the short sides. Such buildings exist at Thurnham (Building 11250) and Bower Road, Smeeth (Building 550; Diez 2006b, 14-17) with further examples from Westhawk Farm (Structure D; Booth et al. 2008, 77-79) and, just outside the modern county, Keston Villa, where two buildings conformed to this arrangement (Philp et al. 1991, 59-61, 81-7). Although there were some domestic associations to the buildings at Thurnham and Westhawk Farm, these buildings seem primarily to have been associated with crop processing and storage and dated to the later 2nd to 3rd centuries. They are thus not early buildings but an indigenous development during the Middle Roman Period.

The remaining rectilinear timber buildings are disparate in nature. One is the timber hall which formed the earliest known phase of the working complex at Northfleet Villa (Biddulph 2011a, 138). This building, dated c. AD 70-AD 120, was less well defined than later structures on the site but environmental evidence again suggested that the storage of malted grain or indeed malting itself was undertaken within it (Andrews and Smith 2011, 216). At East Kent Access Zone 11 (Oxford Wessex Archaeology 2011) an unusual structure comprising three rows of postholes (thus somewhat reminiscent of the Alphen-Eckeren tradition of the Low Countries) was also conjectured to be an agricultural building. At the Charne, Otford, Meates (1954) found a building with a cobbled floor, a deep internal gully and features which he interpreted as Ragstone and brick post-bases. This may have been a byre; there was certainly evidence of animal husbandry in the form of bones and horn cores, whilst large quernstones which Meates considered to be too large for hand-operation suggested significant grain processing in the vicinity. A large Late Roman building at Area B2 of the Grain-Shorne pipeline (Dawkes 2009b) was rectangular with rounded corners, appeared to have been constructed entirely of timber, possibly without earth-fast posts and may, on the evidence of a forge bottom, have been used as a workshop.

Multiple timber buildings have been found at several sites. Furfield Quarry (Mackinder 2006a), a non-villa settlement occupied from the Late Iron Age until the mid-2nd century AD comprised two enclosures with associated buildings. The first of these was associated with both a roundhouse and a masonry building. The second had two aisled buildings (the timber one mentioned above and another, partly of masonry), an unusually long and narrow post-hole

structure, 31.4m long by 5.5m wide,[iv] a further post and sill-beam structure and a further, enigmatic, masonry structure.

A second timber building (Structure 686) at Bower Road was possibly a lean-to structure, but also related by Booth (2011, 279) to an apparently three-sided building at the farmstead and iron working site at Runhams Farm (Philp 1994, 11-13). At Ulcombe (Aldridge 2005a, 11), three timber buildings were apparently associated with some evidence of iron working, although these are not published in any detail. At least two timber structures seem to have been associated with the aisled buildings at Snodland (Dawkes 2009a).

The largest timber buildings (Fig. 6.6) are associated with the early phases of villas, at The Mount, Maidstone and Northfleet. Although these are of quite different dates and of different form, both are likely to have been concerned with the production of ale or at least the production and/or storage of malted spelt wheat (Houliston 1999, 82-83; Andrews and Smith 2011, 216). The most modest are associated with the iron working sites at Runhams Farm, Lenham (Philp 1994) and Ulcombe in the Weald (Aldridge 2005a).

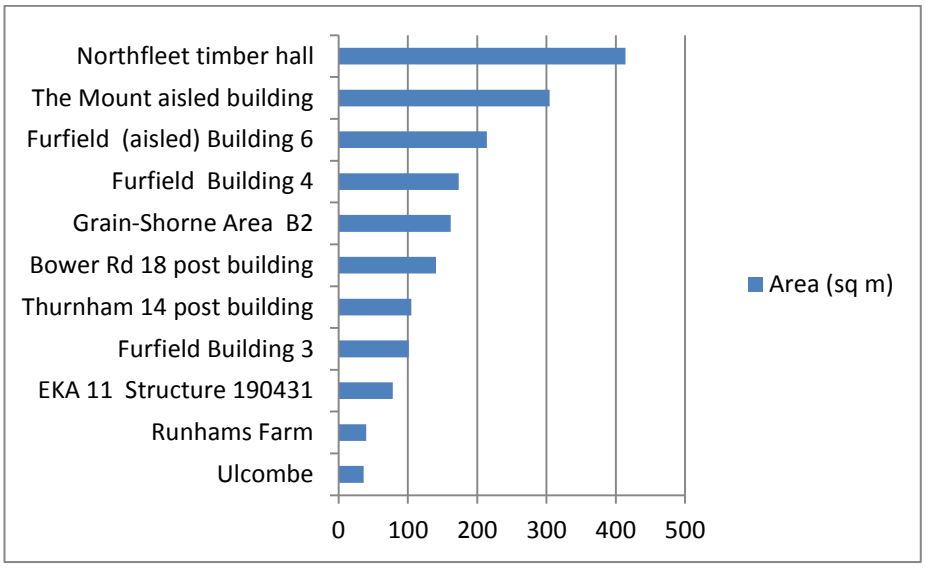


Fig. 6.6 Areas of timber rectilinear buildings

The dates of the majority these timber buildings span from shortly after the conquest to (potentially) c. AD 250 (Table 6.4). As we are dealing with a small number of sites and the dates given are ranges within which the buildings were constructed or used, not absolute spans of use, little can be made of this, other than to say that some fairly substantial timber rectilinear buildings were constructed not long after the Conquest and that we have evidence

of at least one timber aisled building from the Early Roman period. Aisled buildings are a particularly British form of structure during the Roman period [v] but relatively unusual at this early date. The sub-rectangular building on the Grain-Shorne pipeline is unusual in being of later Roman date and relatively short duration, suffering destruction in a fire.

	Period within which occupied (possible ranges)							
Site	50	75	100	125	150	175	200	225
Bower Rd 18-post building 550								
Bower Rd building 686								
EKA 11								
Furfield (aisled) Building 6								
Furfield Building 4								
Furfield Building 3								
Grain-Shorne Area B2					(late 3rd to early 4th century)			
Northfleet								
Runham's Farm				Constructed between				
The Mount aisled building								
Thurnham 14-post building								
The Charne								
Waterbrook								
East of Tollgate								

Table 6.4 Date ranges of timber rectilinear buildings

There is some evidence for the existence of rectilinear buildings during the Later Iron Age in Kent: recent excavations beneath the villa at East Wear Bay, Folkestone found the floors of two separate timber buildings (Parfitt 2012, 5), whilst rectilinear buildings of Late Iron Age date have also been found in Canterbury (Frere et al. 1987, 47; 81).

The styles of the buildings in this small sample are very varied and presumably designed with specific purposes in mind. Where known, these purposes seem to be primarily agricultural and/or industrial.

6.3.3 Sunken-featured structures

Before turning to masonry buildings it is perhaps fitting to consider a further category of building that seems to be particularly associated with Kent: sunken-featured structures.

These are best represented at Monkton in Thanet (Hicks 2008) where 23 such structures formed part of a settlement situated on a trackway of prehistoric origin. The structures spanned the late 1st/early 2nd century to the 4th or even early 5th, with a suggested peak in use during the mid-2nd to early 3rd centuries.[vi] It has been suggested that the construction of sunken-featured structures was a response to what can sometimes be a somewhat bleak environment on this elevated site overlooking the Wantsum (ibid., 278).

The structures were regular in shape, the majority being rectangular or sub-rectangular although varying in size, depth and design. As well as having internal features such as pits, post- and stake-holes and hearths, many showed means of access via ramps or steps, confirming that the bases were floor levels, not sub-floor voids. Some had evidence of porches, annexes or spatially differentiated areas including (in two cases) interconnected rooms. It is suggested that the walls were most likely of chalk and clay cob or turf (ibid., 275). A variety of uses for the structures was suggested by their designs, presence of features, artefacts and environmental evidence. As well as dwellings, functions appear to have included light industrial/agricultural activities, storage and the provision of a possible privy. More conventional structures also existed on the site in the forms of two granaries and a shrine (ibid., 102; 107).

Although Roman-period sunken-featured structures at present seem to cluster on Thanet (with further examples found on the East Kent Access and Thanet Earth schemes amongst others) the recognition of this form has alerted excavators to its possible presence in other parts of Kent, notably during HS1 works at Northumberland Bottom (Askew 2006) and at East Malling (Ward et al. n.d.). At present there are few parallels to these structures, although Hicks cites examples from Gorhambury, Verulamium and Collinton Park, Dorchester. Nearer to home, sunken 'huts' of Late Iron Age date have been found at Canterbury (Frere et al. 1987, 50-52; Blockley et al. 1995).

6.4 Villas

The 'villas' of Kent run the gamut of sizes from modest single buildings to extensive, multi-building complexes and of degrees of luxury ranging from a state of minimal or no embellishment to the provision of elaborate wall painting, mosaics and heated rooms. Where plans are known, most villa houses, at least at some point in their development, bear some

resemblance to that commonest of Roman-British villa forms, the winged corridor house, although in some cases this resemblance is superficial and few appear originally to have been conceived as such.

In order to reduce tedious repetition, a concordance of principal sources for the sites discussed here has been provided at the end of the chapter (Table 6.13).

6.4.1 Chronology

Despite proximity to the continent, the development of villas in Kent was not particularly precocious; Millett indeed expresses some surprise that there are not more 1st century foundations given that the area was amongst the earliest annexed (2007, 152). If we accept the view that the south east of Britain was to all intents and purposes brought under Roman control and administered by client rulers in the period between the Julian and Claudian invasions the observation seems even more pertinent. Taylor (2011, 181) finds that in south-eastern Britain more generally the foundation of villas was principally a phenomenon of the late 1st and 2nd centuries, with the winged corridor form only coming to prominence from the mid-2nd century. This trajectory, however, is contemporary with developments in Picardy and other parts of northern France and Belgium and thus mirrors that of areas brought under direct Roman control at an even earlier date, (ibid.). The contemporaneous spread of villas in the late 1st and 2nd centuries in areas formally annexed at different points of time is reminiscent of the spread of a common material culture during the earlier "Roman cultural revolution" under Augustus (Woolf 1995, 13; 2001). Woolf notes that an initial time lag between acquiring new cultural aspirations and the capacity to realise these is very common and indeed cites building in masonry as an example (1995, 9).

A number of factors must have pertained in the case of villas. In the first place there was the issue of land ownership. We do not know how many of the villas of Kent were built by those who previously held rights to the land on which they are built, but in the immediate post-conquest period there must inevitably have been some disruption to land holding patterns and possible reallocation of land.

Secondly there were practical considerations in terms of the skills and materials needed to build in masonry. At least initially, this is likely to have involved the importation of migrant workers and certainly involved the sourcing of suitable stone, the opening of quarries and the

founding of new industries (e.g. tile making). It is instructive that perhaps the earliest known Kent villa (Eccles) had its own tilery.

Thirdly, suitable finance would be needed for what must have been a costly undertaking. It is possible that this might have required - or been facilitated by - integration into a monetary economy; it may have taken some time for even the wealthy to have acquired the *right kind* of wealth. The necessity for such finance is suggested by the fact that loans were made to the British by speculators such as Seneca (Dio Cassius 62, 2.1).

Finally, but importantly, although it seems only a small conceptual step from roundhouse to stone hall, few villas in Kent seem to have been conceived as such. Where plans are known, the majority of villas seem to have started out as row houses; these represent a radical change in the modelling of domestic space with a greater emphasis on privacy and/or specialised room use and a reduction in communal space. It is unlikely that the adoption of such forms of architecture represent simple emulation: they must reflect and/or have reinforced changes in both domestic relationships and in relationships between the domestic unit and the outside world. As such, it is unlikely that such buildings would be founded in great number in the immediate post-conquest period: only with the adoption of Roman mores and modes of social transaction - these themselves perhaps partially consequent to an understanding of how one behaved in that new institution, the town - would the architectural form become relevant.

In this context the fact that over a third of the 27 villas in Kent with some kind of dating evidence appear to belong to the latter part of the 1st century does hint at a relatively early uptake of the concept.[vii] Eleven further villas date back to at least the early 2nd century with just two believed to have been founded in the mid-2nd century. No villas are known to have been founded later than the 2nd century (Table 6.5). The earliest appear to be Eccles,

established on a pre-existing site in c. AD 65 and Thurnham where the move from roundhouse to the early "proto-villa"[viii] seems to date to c. AD 60-70. If the house at Northfleet is contemporary with its timber hall (see below), this too should date to c. AD 70. These are followed by Faversham and Farningham II (c. AD 75 and 80), with two modest buildings at Plaxtol (Allens Farm and Sedgebrook) less closely dated within the 1st century.

Kent claims several of the South East's earliest well-appointed villas (c.f. Todd 1978). These include Folkestone, Eccles and Wingham. Of these, the earliest appears to have been Eccles. Re-excavation at Folkestone confirms that the first house was probably erected c. AD 90/100 (Parfitt, 2013, 41). In the absence of excavation of the villa building, Wingham's presence in

HER No	Villa name	Founded
TR 36 NW 51	Acol	Unknown
TQ 65 SW 4	Allens Farm	Mid C1
TQ 66 NW 15	Ash-Cum-Ridley	Mid C2
TQ 75 SW 22	Barming	Unknown
TQ 96 SW 191	Bax Farm	Bath house earlier C4; other buildings undated
TR 15 SE 326	Bourne Park	Unknown
TQ 86 NE 18	Boxted	Early? (VCH 109)
TR 26 NE 71	Brooksend	Unknown
TQ 76 SW 13	Burham	Unknown; channelled hypocaust = 2nd 1/2 C2 or later
TQ 84 NW 6	Chart Sutton	Unknown
TQ 66 NE 23	Cobham	c. AD 100
TQ 57 SE 30	Darenth Court	before AD 150, possibly late C1 (Black 1981)
TQ 96 SE 22 & SE 1055	Deerton St & Hog Brook	Aisled building said to be C1; possible late 1st-2nd C mosaic from winged corridor building (Neal et al. 2009)
TQ 75 NW 6	East Malling	C1; Flavian
TQ 75 SW 8	East Farleigh	C2
TQ 76 SW 10	Eccles	c. AD 65
TQ 65 SW 162	Fairlawn	Late C2
TQ 56 NW 15 & 14	Farningham I & II	c. AD 80
TR 06 SW 41	Faversham	c. AD 75
TR 23 NW 11	Folkestone East Wear Bay	c. AD 90-100
TQ 56 NE 4	Franks Hall	2nd 1/2 C1; c. 100 according to Black 1987.
TQ 76 NE 401, NE 425	Grange Farm	120-250 (granary)
TQ 86 SW 1	Hartlip	Unknown
TQ 56 NW 7	Lullingstone	c. AD 100 (Millett 2007, 171; c.f. Walthew 1975, 196-17)
TQ 75 SE 18	Maidstone II	Unknown
TR 26 NW 102	Millbank	Unknown
TR 36 SW 67	Minster	Not before last 1/4 of C1
TQ 67 SW 38	Northfleet	c. AD 70
TQ 55 NW 3	Otford "Progress"	c. AD 100 (Detsicas 1983, 90)
TQ 95 NW 23	Rodmersham	Unknown
TR 35 NW 91	Sandwich	Late C1-C2
TQ 65 SW 20	Sedgebrook	C1
TR 05 NW 181	Sheldwich	Unknown
TR 35 SE 4	Sholden	Early C2
TQ 76 SW 23 & 454	Snodland	Main villa dated to C2, but detached bath house dated 2nd 1/2 C1; A further building also probably predated the main villa building (A. Daniels pers. comm.)
TQ 57 SW 11	Tenter's Field	Unknown
TQ 65 SE 19 & SE 76	Teston	Unknown
TQ 75 NE 28	The Mount	c. AD 150
TQ 75 NE 374	Thurnham	AD 60-70 (proto villa)
TR 37 SE 9	Tivoli	Unknown
TQ 66 SW 49	Trottiscliffe	Unknown
TQ 57 SW 12	Wilmington	Unknown
TR 25 NW 14	Wingham	Bath house mosaic C1-Early C2 (Neal et al. 2009)
TR 04 NW 19	Wye	Unknown

Table 6.5 Dates of foundation of villas/possible villas (dates from excavation reports unless otherwise stated; table does not include a number of buildings implied by more fragmentary evidence which are included in Appendix 4.)

the list stems from its detached bath house mosaics, dated to the late 1st or early 2nd centuries (Neal et al. 2009, 391). Further candidates are East Malling, also possibly in possession of an early bath house mosaic (ibid., 369) and Northfleet, where finds made during recent excavations of the working complex suggest that the poorly understood main house had some unusually luxurious features including *opus sectile* floor- or wall-veneers and columns of oolitic limestone and bath-stone (Andrews et al. 2011, 228). In Britain *opus sectile*, also probably present at Folkestone (Winbolt 1925, 109), seems to date exclusively from the Flavian or Trajanic periods (Clarke et al. 1982, 210). Nevertheless, Kent possesses nothing to rival the scale or luxury of the 'palace' at Fishbourne.

At the other end of the time-scale it is noticeable that in contrast to the more general trends outlined in Chapter 5, a large proportion of villas were still occupied in the 4th century. Less than 30% of all Class A sites (Activity Foci including Roadside Settlements) were still in existence during the first half of the 4th century, and only approximately 20% in the second half. Where villas are concerned, the most conservative estimate suggested by the present data is that at least 46% remained in use into the 4th century; if the villas with unknown abandonment dates are excluded, the figure potentially rises to as much as 87% (Table 6.6).

	No	% All villas/probable villas (n = 50)	% Villas with known late phase/ abandonment dates (n = 31)
Known to be abandoned prior to C4	4	8%	12.9%
C4 occupation	23	46%	74.2%
Possible C4 occupation	4	8%	12.9%
Total for C4	27	54%	87.1%
Possible C5 occupation	6	12%	19.4%
Unknown abandonment date	18	36%	

Table 6.6 Percentages of villas occupied in the 4th century and beyond

What this means is another matter: the fabric of villas meant they could endure physically even if their importance waned. Whilst some, such as Eccles or Bax Farm, seem to have continued to thrive into the 4th century with the construction of elaborate bath houses, more commonly the villas of Kent seem to be less prosperous in their later years. Some villas were re-occupied after a phase of abandonment, for instance at Folkestone, Lullingstone and Minster. Fourth century occupation is often on a reduced scale and/or involves repurposing of buildings with the bringing of industrial or agricultural processes into former living areas. This is a widespread trend: even Eccles, with its palatial bathing complex, incorporated agricultural facilities within its main building. The 3rd century was a time of political and economic upheaval

throughout the Roman Empire (although see discussion in Chapter 13.5): it is possible that the economic bases of some villas were strong enough to see them survive these difficulties with no diminution (or even an enhancement) of status, whilst others may have changed hands and become reinvented foci within a landscape that had seen shrinkage of settlement and possibly population.

6.4.2 Distribution

The distribution of villas in Kent has caused comment on a number of occasions (e.g. Black 1987; Andrews 2001; Butler 2010). Even within the already uneven distribution of Roman-period settlements and sites in Kent, villas have a restricted distribution, being confined largely to the Holmesdale, Thanet and (particularly) the Foothills and showing a distinct tendency towards the centre and west of the (mainland) county at the expense of the east (Fig. 6.7). This is more generally a feature of stone-founded buildings of the period, others of which may indeed have been villas. As noted in Chapter 5, Kent's Roman-period buildings tend to cluster within the core areas of Roman settlement, with the exception of the Isle of Grain.

In particular there is an absence of villas in the region surrounding Canterbury despite the tendency of villas in some other areas of England to cluster around *civitas* capitals and other large towns (Rivet 1955, Hodder and Millett 1980). The relationship between villa distribution and towns is complex: Rivet later observed (1966) that clusters of villas sometimes focussed on the second town of a *civitas* rather than its capital[ix] and indeed Burnham and Wacher (1990, 44) cite Rochester as a case in point. A number of explanations for this distribution have been offered.

Andrews (2001) makes two suggestions. Following Millett's arguments for the militarised zones in the north and west of the country (Millett 1990a, 100-102) he posits that that the military presence in the east of the county may have undermined the status of the local elite. Andrews would take this argument further back into the Late Pre-Roman Iron Age, suggesting that Kent's elite may have been undermined by the effects of rule by (or effectively by) the Eastern Dynasty and by the possible state of political disarray in Kent caused by (or reflected in) the exile and flight of Amminius in AD 39/40[x] (Suetonius, *Caligula* 44). Mattingly (2008, 386) in an argument similar to one proposed by Frere (1987, 266-8) suggests that parts of Kent (e.g. Ickham) may have been run as imperial estates.

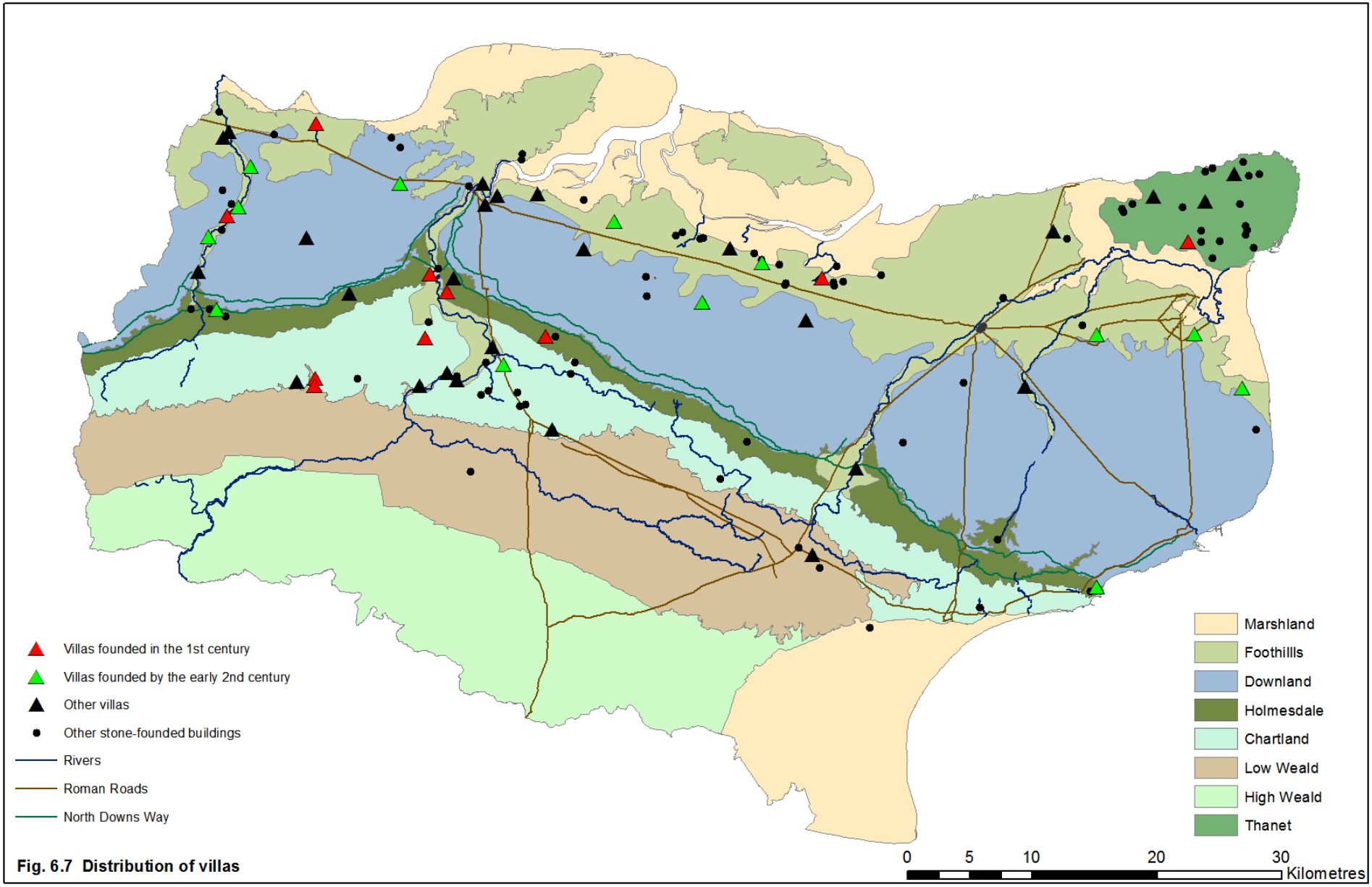


Fig. 6.7 Distribution of villas

Black, on the other hand suggests that differential attitudes to the Roman annexation may have influenced the pattern. He posits that the eastern elite may have already surrendered on favourable terms prior to the decisive battle commonly generally thought to have taken place on the Medway in AD 43.[xi] In the west, the seat of resistance, therefore, lands were confiscated and subsequently taken over by Gaulish immigrants who introduced the villa to the Kentish countryside; in the east, there was little disruption to land-holding and little interest in the construction of villas (1987, 9,25, 82). These arguments focus on the lack of evidence in the east of the county; in the process, most implicitly suggest that what happened in the west was 'normal'.

It is possible that chronological factors are important. Although Millet (1990a, 142 and Fig. 33) demonstrates a steady growth in the number of villas in Britain until the earlier 4th century, the majority of Kent's villas appear to have earlier rather than later foundation dates. In the later 3rd century, when there is perceived to be a relative decline in the vitality of towns and a resurgence of activity, including villa-building, in the countryside (ibid., 133), rural settlement in Kent appears to be distinctly past its peak. Perhaps there was no movement from Canterbury to villas in the surrounding countryside because villas were simply not (or very rarely) being constructed at this point in this part of the province.

Whatever the reason for this larger pattern and whether villa owners were the indigenous elite, opportunistic members of a lower stratum of society or Gaulish incomers, they must have had reasons for choosing specific locations for the investment that these buildings involved. Within the areas characterised by the presence of villas, other patterns emerge which suggest why some locations were deemed more favourable than others.

In a paper published in 1993, Sheldon et al. surveyed the distribution of villas in Kent, Surrey and Sussex. Their preliminary findings included the following statistics:

1. over 80% of villas were sited within 5km of an identifiable river
2. nearly 50% were within 10km of the coast and two thirds within 20km
3. villas were on average nearly 7km from the nearest known major road
4. nearly 50% of villas lay within 10km of a roadside settlement or major town
5. nearly 90% were within 25km of a roadside settlement or major town
6. the average villa lay at 52m above OD, with two-thirds below the 61m contour line, situated along river valleys or close to the coast

7. there was an absence of villas on the Hastings Beds of the central Weald, the Wealden Clay and London Clay
8. approximately 60% of villas lay on well-drained loamy soils or fine, silty soils.
9. a number (unspecified) were near to soil type boundaries

Whilst a number of these findings appear to be significant and indeed, on the whole accord well with the locations of villas in Kent collated for this study, twenty years on (Table 6.7), they must be treated with a degree of caution as no comparative data were collected for non-villa sites. In Kent, 86% of villas[xii] are sited within 5km of a river, but this must be seen in the context of 76% of the Class A evidence fulfilling the same criterion. As a maritime county with a long seaboard, it is hardly surprising to find 60% of Kent's villas within 10km of the (projected Roman) coast. Similarly, although 68% of Kent's villas lie within 5km of a known Roman road, this is only marginally higher than a figure of 64% for the entire Core Dataset. Indeed Watling Street, almost certainly the earliest and definitely the busiest of Kent's Roman roads, is the only one with a significant number of associated villas. Although villas are commonly perceived as hubs of agricultural activity, in Kent they have no significantly greater association with the Brown Earth Soils or easily cultivated soils than do other activity foci. Clearly a more nuanced approach is needed if we are to pick out particular topographical factors as influences on the location of villas.

Chronologically, it is tempting to connect the river valleys with the earliest phase of villa-building since seven of Kent's ten confirmed 1st century villas are located within 1km of a river, and all ten within 3km. This might make some sense as riverine routes would have had even greater importance prior to the development of the road system. Certain rivers clearly had a greater gravitational pull than others. Nine villas are situated within 1km of the Medway and seven of the Darent whereas the Great and Little Stour only have one known villa apiece. The fact that the Darent and the Medway gave easier access to the Thames as well as intersecting with Watling St at a more westerly point perhaps gave them an advantage over the Stour for trade with London and with the military, both in the north of Britain and the Rhineland. When these riverine settings are examined, however, it is clear that it is not simply the rivers themselves that are the attractants as villas cluster at certain points along the valleys and are largely absent from those areas cutting the Downland.

HER no	Villa name	*Pays*	Bedrock	Within 500/600m of Change in Bedrock?	Within 1km of most easily cultivated soils	Within 1km of Brown Earth Soils (N Kent)	River	Within 1km of Roman road/ prehistoric route
TR 36 NW 51	Acol	Thanet	Chalk		✓	✓		
TQ 65 SW 4	Allens Farm*	Weald	Weald Clay	500m		✓	North-bourne	LIA trackway
TQ 66 NW 15	Ash-Cum-Ridley	Downland (west)	Chalk		✓			
TQ 75 SW 22	Barming	Chartland	Lower Green-sand				Medway	
TQ 96 SW 191	Bax Farm	Foothills (central)	Thanet Sands	600m		✓	Creek (Swale)	
TR 15 SE 326	Bourne Park	Foothills (east)	Chalk		✓		Little Stour	Road
TQ 86 NE 18	Boxted†	Foothills (central)	Thanet Sands		✓	✓	Creek (Swale)	
TR 26 NE 71	Brooksend	Thanet	Chalk		✓	✓	Wantsum Channel	Road
TQ 76 SW 13	Burham	Holmes-dale	Chalk	500m			Medway	North Downs Way
TQ 84 NW 6	Chart Sutton	Chartland	Lower Green-sand	600m				Road
TQ 66 NE 23	Cobham†	Downland (west)	Harwich Formation	600m	✓	✓		Road
TQ 57 SE 30	Darenth Court†	Foothills (west)	Chalk	500m	✓	✓	Darent	
TQ 96 SE 22 & SE 1055	Deerton St and Hog Brook†	Foothills (central)	Thanet Sands	500m		✓	Creek (Swale)	
TQ 75 NW 6	East Malling*	Chartland	Lower Green-sand				Tributary of Medway	
TQ 75 SW 8	East Farleigh	Foothills (central)	Lower Green-sand				Medway	
TQ 76 SW 10	Eccles*	Holmes-dale	Chalk	600m	✓		Medway	
TQ 65 SW 162	Fairlawn	Chartland	Lower Green-sand	500m				
TQ 56 NW 15 & 14	Farningham I & II*	Foothills (west)	Chalk	500m	✓	✓	Darent	
TR 06 SW 41	Faversham*	Foothills (central)	Thanet Sands	500m		✓	Creek (Swale)	
TR 23 NW 11	Folkestone East Wear Bay†	Holmes-dale	Chalk	500m			Maritime	
TQ 56 NE 4	Franks Hall†	Foothills (west)	Chalk	500m	✓	✓	Darent	
TQ 76 NE 401, NE 425	Grange Farm	Foothills (central)	Thanet Sands	500m	✓	✓		
TQ 86 SW 1	Hartlip	Downland (mid)	Chalk	500m		✓		

Table 6.7 Locations of villas (continued overleaf)

HER no	Villa name	*Pays*	Bedrock	Within 500/600m of Change in Bedrock?	Within 1km of most easily cultivated soils	Within 1km of Brown Earth Soils (N Kent)	River	Within 1km of Roman road/ prehistoric route
TQ 56 NW 7	Lullingstone†	Foothills (west)	Chalk	600m	✓		Darent	
TQ 75 SE 18	Maidstone II†	Chartland	Lower Green-sand				Medway, Len, Loose	Road
TR 26 NW 102	Millbank	Foothills (east)	Weald Clay		✓	✓	Wantsum Channel	Road
TR 36 SW 67	Minster*	Thanet	Thanet Sands	500m	✓	✓	Wantsum	
TQ 67 SW 38	Northfleet*	Foothills (west)	Chalk	500m	✓	✓	Ebbsfleet	
TQ 55 NW 3	Otford "Progress"†	Holmes-dale	Chalk	500m	✓	✓	Darent	North Downs Way
TQ 95 NW 23	Rodmersham†	Downland (mid)	Chalk	500m	✓	✓		
TR 35 NW 91	Sandwich	Foothills (east)	Chalk	500m		✓	Wantsum Channel	Road
TQ 65 SW 20	Sedgebrook*	Chartland	Weald Clay	500m			North-bourne	
TR 05 NW 181	Sheldwich	Downland (mid)	Chalk		✓	✓		
TR 35 SE 4	Sholden†	Foothills (east)	Chalk		✓		Wantsum	
TQ 76 SW 23 & 454	Snodland *	Holmes-dale	Lower Green-sand	600m	✓		Medway	
TQ 57 SW 11	Tenter's Field	Foothills (west)	Chalk	500m		✓	Darent	Road
TQ 65 SE 19 & SE 76	Teston	Chartland	Lower Green-sand	500m			Medway	
TQ 75 NE 28	The Mount	Foothills (central)		500m			Medway	Road
TQ 75 NE 374	Thurnham*	Holmes-dale	Lower Green-sand	500m	✓			North Downs Way
TR 37 SE 9	Tivoli	Thanet	Chalk					
TQ 66 SW 49	Trottiscliffe	Holmes-dale	Chalk	500m				North Downs Way
TQ 57 SW 12	Wilmington	Foothills (west)	Chalk	500m			Darent	
TR 25 NW 14	Wingham†	Foothills (east)	Chalk	500m	✓	✓	Wingham	Road
TR 04 NW 19	Wye	Foothills (Stour valley)	Gault	500m		✓	Stour	North Downs Way
			Totals (C1-C2 villas only)	**19/23**	**15/23**	**13/23**	**19/23**	**4+3/23**
			Totals (all)	**31/44**	**22/44**	**24/45**	**32/44**	**10+6/44**

Table 6.7 Locations of villas (continued)

* Villa founded in 1st century
† Villa in existence by the earlier 2nd century

The majority of villas in Kent (68%) are situated at elevations below 50m OD; this figure is a little lower than the figure for Activity Foci and Roadside Settlements more generally (75%). Although there are no villas situated higher than 150m above OD, four (8%) are situated between 100 and 149m above OD; this is rather higher than one might expect as only 4% of Activity Foci and Roadside Settlements fall within this range. All four fall outside the general distribution pattern of villas (Fig. 6.8), but two (Cobham and Chart Sutton) have closer than average relationships to main Roman roads; Chart Sutton is directly on Margary's Route 131, not far from the junction with Route 13, leading to speculation that it may have been a *mansio*. The villa at Ash-cum-Ridley is rather unusual and not well-understood; like the trial-excavated sit at Rodmersham, it lies on the clay-with-flints, perhaps suggesting the priority of a different sort of economic activity over farming. The fourth is one of the outlying group at Plaxtol.

Of potentially greater significance is a point touched upon by Sheldon et al. and picked up also by Bird (2004, 83) and Taylor (2011, 184): that of soil type boundaries. As noted more generally (Chapter 5), there does seem to be some tendency towards the margins of the Brown Earth Soils rather than the interiors of those areas. More specifically, however, there seems to be a real association between the location of villas and the boundaries of different underlying bedrock geologies. The percentage of villas lying within 500m of a change in bedrock is consistently greater than the percentage of other categories of evidence. Nearly 80% of villas lie within 1km of such a change, as opposed to 54% of all Activity Foci (Fig. 6.9). Figures are particularly high for the earlier villas: 19 out of 23 villas founded by the earlier 2nd century lie within 600m of a change in underlying geology. As different bedrocks will give rise to differing topographic settings and vegetation, this would be advantageous to mixed farming, allowing for instance for sheep grazing on the chalk grasslands and cereal production on the rich Brown Earth Soils overlying the Thanet Sands, as well as giving access to a variety of natural resources.

It has already been noted (Chapter 5) that in terms of *pays* the Foothills and the Holmesdale have a high density of evidence in comparison to area. This is particularly so in relation to villas. Although the Foothills comprise just 15% of the area of the county we have already seen that 28% of the core Dataset and 31% of Activity Foci are located within them. Nearly half (46.9%) of villas are located in the Foothills, however. The narrow strip of the Holmesdale, covering just 4.4% of the county and having 5% of the Core Dataset and 8% of Activity Foci, has 17% of the county's villas. It may be noted that the greater part of the Holmesdale and large

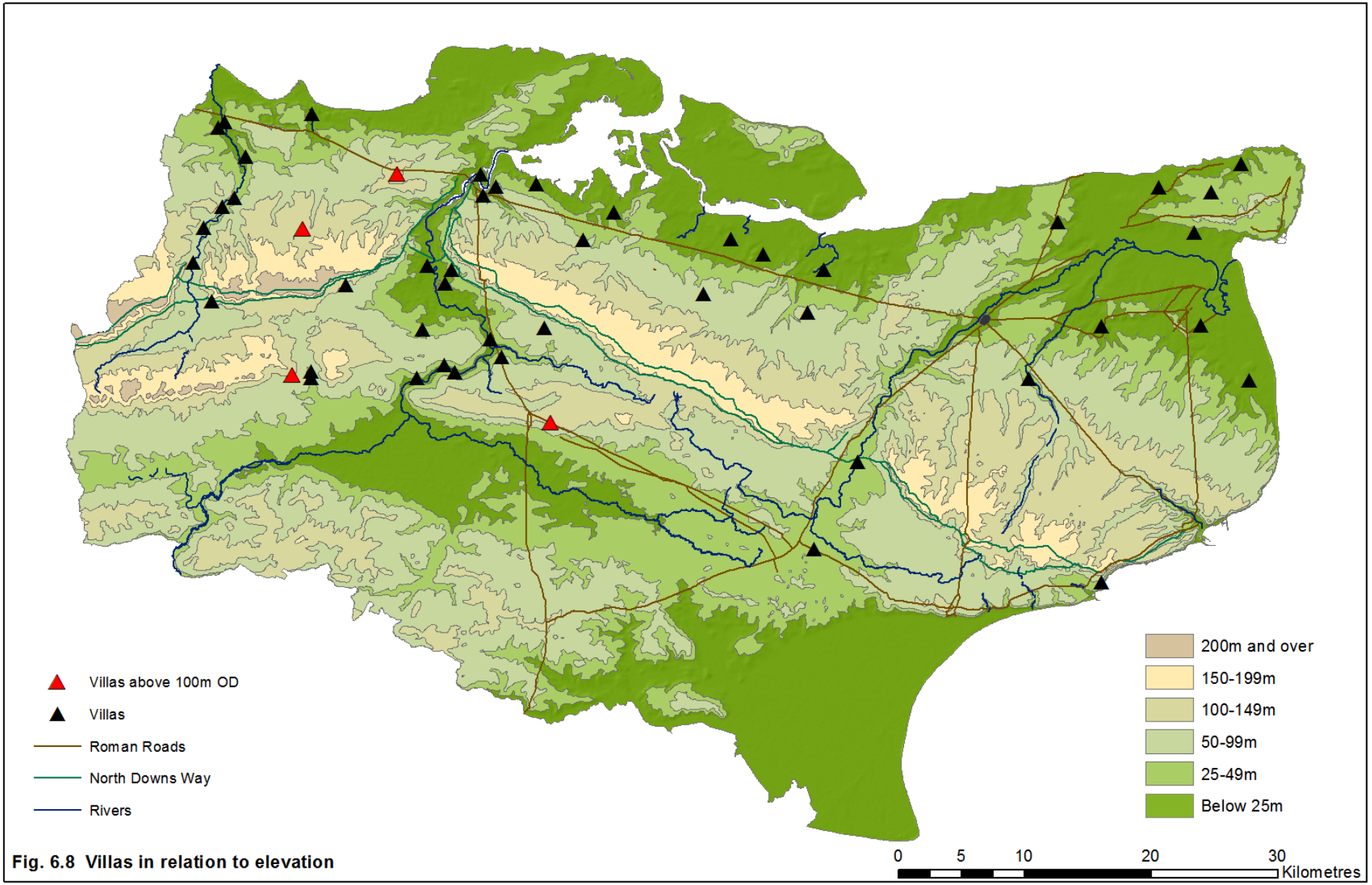


Fig. 6.8 Villas in relation to elevation

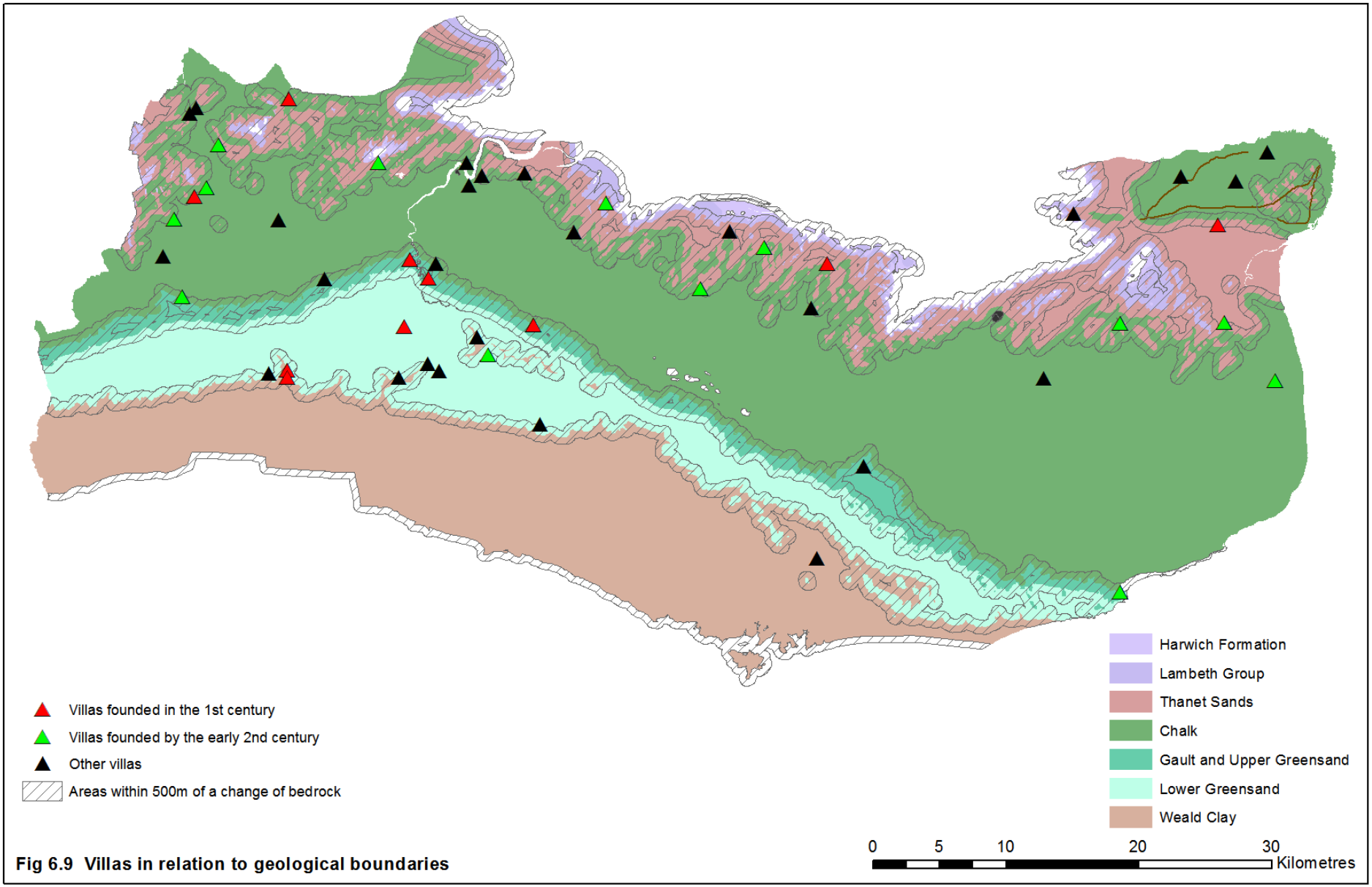


Fig 6.9 Villas in relation to geological boundaries

tracts of the Foothills lie within 500m of changes in underlying geology, this no doubt contributing greatly to the general attractiveness of these areas for settlement.

This phenomenon appears largely to underpin the positioning of villas in the river valleys, certainly in the west of the county. In the case of the Darent and the Medway, villas are virtually absent from those sections of the rivers that do not flow through areas on the margins of different bedrocks (Fig. 6.10): only the presumed villas at Shoreham on the Darent and at Frindsbury and Fort Pitt on the Medway are not within 600m of a change in bedrock. The location of latter two may be perhaps instead be explained by their proximity to Rochester. The margins of the chalk seem particularly important. Just 13% of the county is within 500m of a boundary of the chalk with bedrock, yet that 13% contains nearly 45% of Kent's villas. Chalk would of course be a desirable commodity not only for the manufacture of mortar for construction, but for marling the adjacent land, either to break up heavy clay soils and assist with drainage or to neutralise and 'sweeten' acidic soils overlying the Thanet Sands. The margin of the chalk is also associated with the spring line (although few springs on the modern OS map seem to be directly associated with known villas). The spring line on its own does not seem to have been an attractant as that on the margin of the Lower Greensand and the Weald Clay is associated with only the group of modest villas at Plaxtol.[xiii]

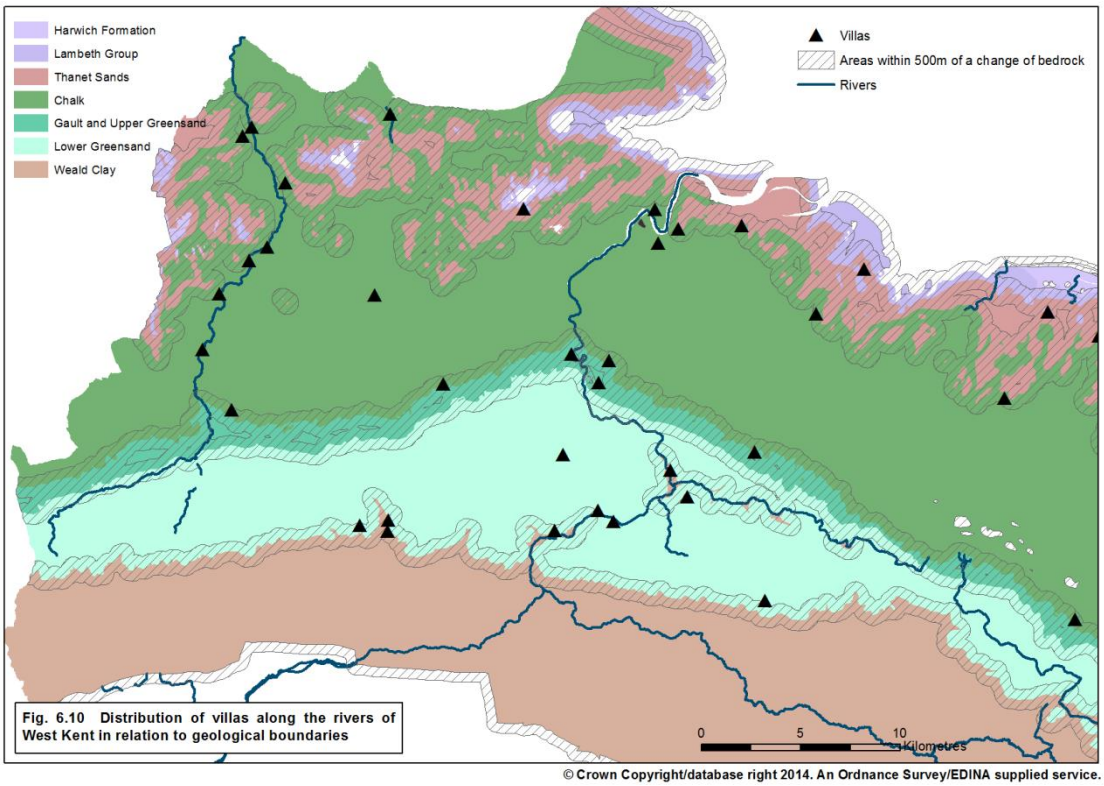


Fig. 6.10 Distribution of villas along the rivers of West Kent in relation to geological boundaries

6.4.3 Continuity from the Late Iron Age

Although Taylor (2011, 183) states that the majority of villas in the South East subject to modern excavation are located on sites already occupied in the Late Iron Age, this seems to be attested at only half of the sixteen villa sites in Kent subject to some degree of excavation since 1990; indeed securely attested Late Iron Age occupation directly preceding the construction of a villa can only be demonstrated at perhaps seven sites all told (Table 6.8). Further, a number of recent excavations of Roman villa sites in Kent noted no significant Late Iron Age occupation. At The Mount, Maidstone (Houliston 1999) pre-mid-2nd century activity was witnessed by only flint artefacts and a small quantity of typologically Late Iron Age and Early Roman potsherds, whilst at Northfleet, there had been no significant occupation for some 1500 years (Biddulph 2011, 213). At Snodland, although a phase of formal land use was broadly dated to the Late Bronze Age-Late Iron Age, these features had fallen out of use before a new land division of Transitional date heralded further development in the mid-1st century (Dawkes 2009a, 5-6). A scatter of small sherds of c. 300-50 BC provides the only Late Iron Age evidence from Darenth Court Villa (Philp 1984, 89) and whilst there is evidence of Late Iron Age land division at East Farleigh, there is little in the way of occupation material and no clear continuity from the Late Iron Age into the Roman period (site known to author). At Grange Farm, the site was noted as being only sparsely used during the Late Iron Age, the only evidence being field ditches (Seddon 2008, 5). Iron Age material appears to be absent from Sandwich (Parfitt 1980) and from those parts of Wingham investigated by Jenkins (1984) and Philp (2000).

The degree of attested continuity from the Later Iron Age in Kent's villas ties in with the evidence presented in Chapter 5 which similarly suggested that approximately half of dated Class A sites were in existence in the first half of the 1st century. This proportion is considerably below the 27 out of 30 sites found to have had Late Iron Age origins on the HS1 route (Booth 2011, 262). Although there are signs of continuity at a number of villas, these are rarely explicit in terms of an unequivocal Late Iron Age domestic site being replaced by a villa, as observed at Faversham or Thurnham and (less certainly) at Eccles and East Malling. This may suggest a degree of settlement dislocation or that the requirements for a villa site were in many cases different from those for a Late Iron Age farmstead. Indeed, although the broad distribution patterns of Late Iron Age and Roman Class A evidence are similar, it is noticeable that a significant number of villas lie outside the main Late Iron Age distribution, being particularly associated with a shift of emphasis towards the river valleys of West Kent (Fig.

6.11). Nevertheless, it is possible that, particularly in older excavations, where villa buildings were focused upon to the exclusion of their immediate surroundings, earlier evidence was overlooked.

HER No	Summary	Date of pre-villa occupation	Nature of pre-villa occupation
TQ 66 NW 15	Ash-Cum-Ridley	Mid C1	Kiln/oven
TQ 96 SW 191	Bax Farm	LIA	Ditches
TQ 66 NE 23	Cobham	Mid-Late C1	Floor level predating villa
TQ 96 SE 22 & SE 1055	Deerton St Villa & Hog Brook aisled barn	LIA	Ditches under aisled barn
TQ 75 NW 6	E Malling	Transitional	Enclosure
TQ 75 SW 8	East Farleigh	LIA	Ditch (but no clear evidence of continuity)
TQ 76 SW 10	Eccles	LIA	Linear boundaries and pits
TR 06 SW 41	Faversham	LIA	Ditched domestic enclosure adjacent to and field ditches under villa building
TR 23 NW 11	Folkestone	LIA	Significant LIA settlement; possible entrepot
TQ 56 NE 4	Franks Hall	?LIA	Gullies of later C1 building contained quantities of 'Belgic' pottery and 3 potins
TQ 76 NE 401 & NE 425	Grange Farm	LIA	Field ditches; evidence otherwise sparse. Buildings only known from C2 onwards
TQ 55 NW 3	Otford "Progress"	Uncertain	Possible roundhouse
TQ 65 SW 20	Sedgebrook	Uncertain	Roundhouse
TR 35 SE 4	Sholden	LIA	Features and finds suggesting farmstead (but villa buildings C2)
TQ 75 NE 374	Thurnham Villa	LIA	Enclosed settlement with roundhouses

Table 6.8 Late Iron Age and potential Late Iron Age evidence associated with villa sites

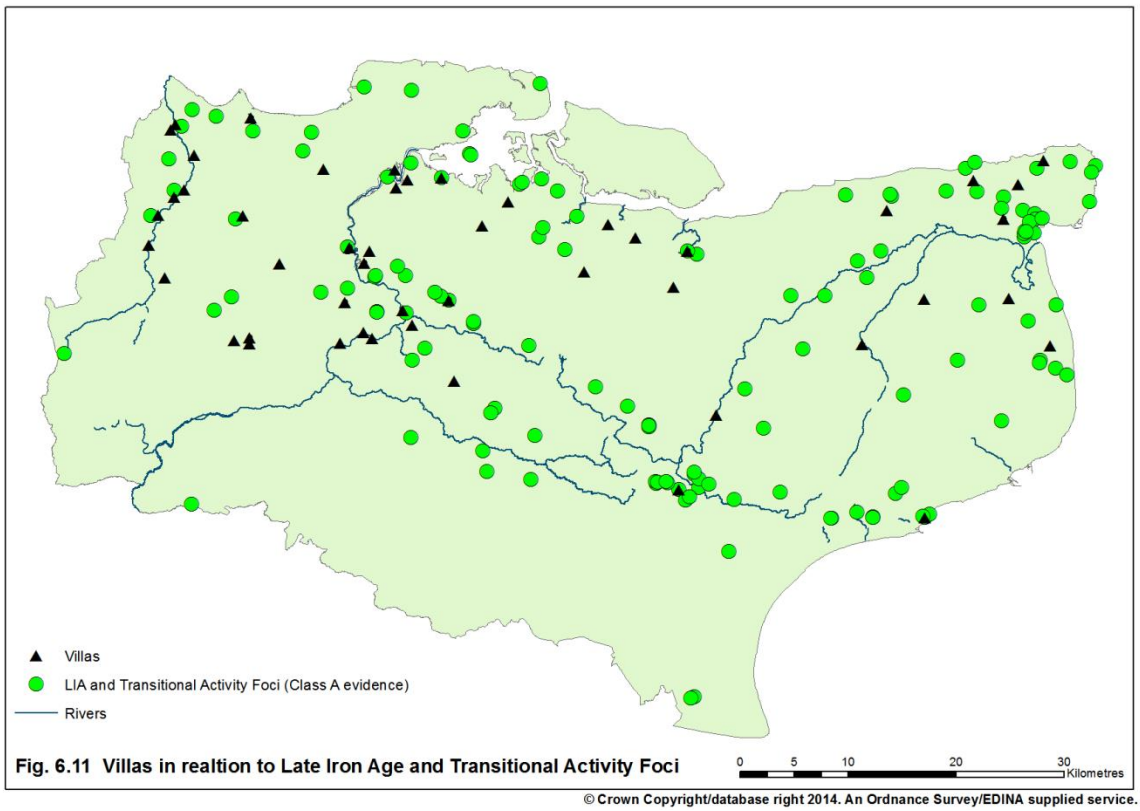
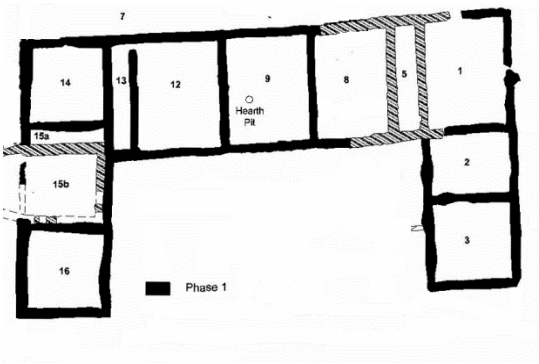


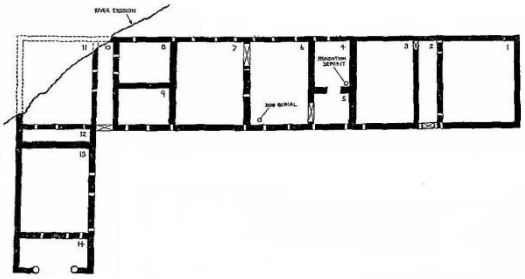
Fig. 6.11 Villas in realtion to Late Iron Age and Transitional Activity Foci

6.4.4 Morphology and development of villa houses

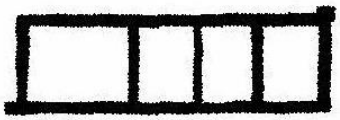
Plans, or part plans, are known for the first phases of just seven of the confirmed 1st century villas (Fig. 6.12; Table 6.9). Only one of these, Minster, appears to have commenced as a winged house (although without portico); Farningham II appears to have had just one wing. The core of each of these houses was a row house. Sedgebrook, which remained throughout its life at the more modest end of the villa scale started life as a hall (as, possibly, did the perhaps later slightly Franks Hall, Farningham [Table 6.10]). The remaining six buildings were row houses; of these only Eccles and the proto-villa at Thurnham were provided with porticos. For the most part at this stage the rooms seem largely to have been undivided. Eccles is exceptional for a number of reasons and military connections have been suggested to explain the design both of the main house and of the earliest phase of the bath house with its circular laconicum (Detsicas 1964, 123). There is no hard proof of this, but the building is reminiscent of a barrack block in its length and the provision of a higher standard of accommodation at one end. Certainly the military brought with them the skills requisite to build in stone and to manufacture the tiles and iron nails and fittings that would be needed for the construction of a



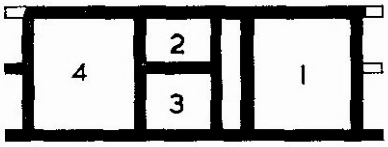
a) Minster
(adapted from Parfitt et al. 2008, Fig. 2)



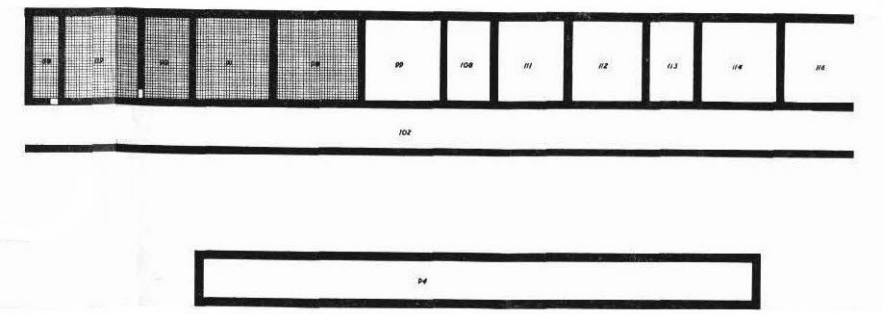
b) Farningham II
(adapted from Meates 1973, Fig.1)



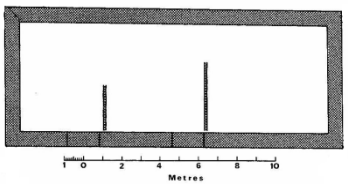
c) Snodland
(adapted from Birbeck 1995, Fig. 20



d) Faversham
(adapted from Philp 1968, Fig. 22)



e) Eccles (adapted from Detsicas 1972, Fig. 3)



f) Sedgebrook (adapted from Crocket 1988).

Fig. 6.12 Plans of villa houses in the 1st century (N.B. not to scale)

HER No	Name	Phase 1	Other buildings/features
TQ 76 SW 10	Eccles	Row house with portico	Long water basin; detached bath house; ancillary building containing workshops
TQ 56 NW 15 & 14	Farningham II	Row house with single open-ended wing	
TR 06 SW 41	Faversham	Row house	
TR 36 SW 67	Minster	Winged corridor house	
TQ 65 SW 20	Sedgebrook	Hall	
TQ 76 SW 23 & 454	Snodland	Row house	
TQ 75 NE 374	Thurnham	Proto villa: row house with portico;	Probable bath house; 'concentric building'

Table 6.9 Earliest phases of 1st century villa houses

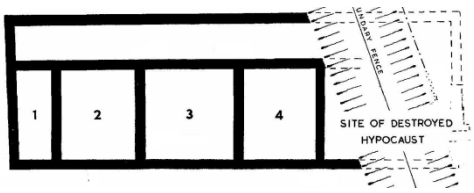
masonry building at this early date. One can only speculate on what the nature of such a relationship between the proprietor of Eccles and the army may have been, but a so far undiscovered kiln on the site was producing Hofheim-type flagons (a type favoured by the military) prior to AD 65 (Desticas 1977a). Cumulatively this suggests that a commercial contract to supply pottery to the military enabled access to the construction skills of military engineers although one might also speculate that the proprietor himself had seen service as an auxiliary and thus chose military, rather than civilian models for his home.

By the earlier part of the 2nd century, there were at least 22 villa houses in Kent (see Fig. 6.7; Table 6.5). Something is known of the initial phase of seven of the villas originating in the late 1st to early 2nd centuries (Table 6.10; Fig. 6.13). Some of these plans, particularly Lullingstone

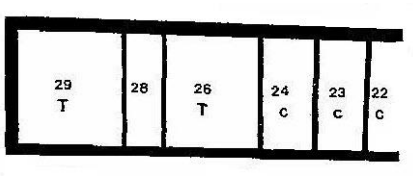
and Folkestone, which apparently, like Minster, was originally conceived as a winged corridor house (in this case unusually with apsidal wing ends), show a higher degree of sophistication. All except Farningham (which may have been an earlier foundation) have corridors, including Sandwich, a house modest in concept and scale. Lullingstone is at this and all stages an unusual building, which D.J. Smith (1978, 124) describes as *sui generis* and J.T. Smith, from the point of view of structure, finds incomprehensible (1997, Ch. 11, note 50).

HER No	**Name**	**Phase 1**	**Other buildings/features**
TQ 66 NE 23	Cobham	Row house with corridor	
TQ 57 SE 30	Darenth	Row house	Bath-house; possible ("workers'") hall
TR 23 NW 11	Folkestone East Wear Bay	Axial, winged corridor villa; wings apsidal	Bath-house
TQ 56 NE 4	Farningham Franks Hall	?Hall with flanking rooms	
TQ 56 NW 7	Lullingstone	Double range rooms with corridor to rear; deep room	
TR 35 NW 91	Sandwich	Modest winged corridor villa with one large central room	
TR 35 SE 4	Sholden	Rectangular, single roomed structure	

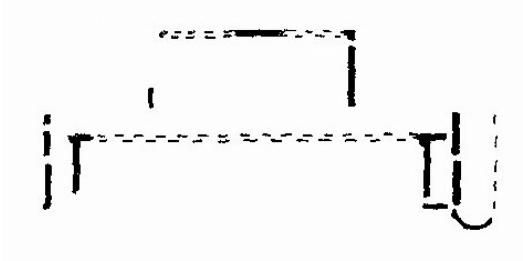
Table 6.10 Earliest phases of villas originating by the earlier 2nd century



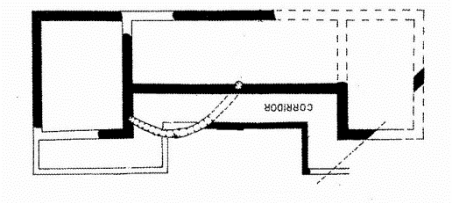
Cobham
(adapted from Tester 1961, Fig. 2)



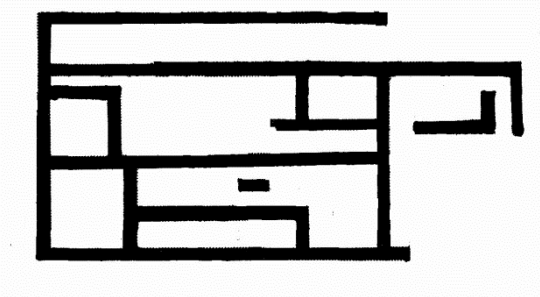
Darenth
(adapted from Black 1981, Fig. 3)



Folkestone East Wear Bay
(adapted from Black 1987, Fig. 16A)



Sandwich
(adapted from Parfitt 1980, Fig. 1)



Lullingstone (based on Meates 1979, Fig. 6)

Fig. 6.13 Initial plans of villas founded by the early 2nd century

Lack of secure dating is an endemic problem which makes it difficult to compare the development of Kent's villas.[xiv] Development took the form of embellishing the plan of the original building and/or adding additional buildings to form villa complexes. Patterns described by Perring (2002, 41) are evident with the addition of porticos and wings to buildings which did not already have the winged corridor form, for instance at Faversham (Philp 1968, 74-5; Fig. 6.14) or Farningham II (Meates 1973, 4; Fig. 6.15).

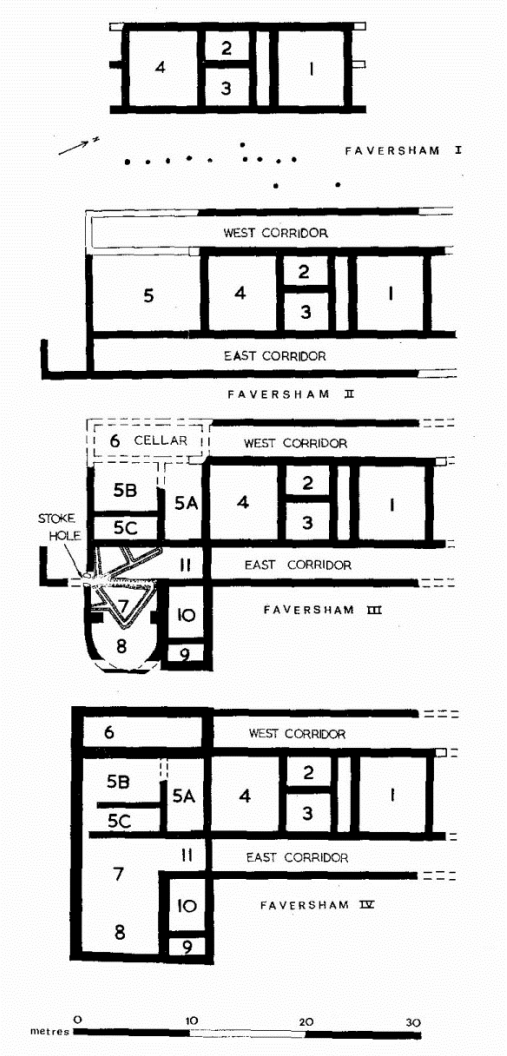


Fig. 6.14 Development of Faversham Villa (Adapted from Philp 1968, Fig. 22).

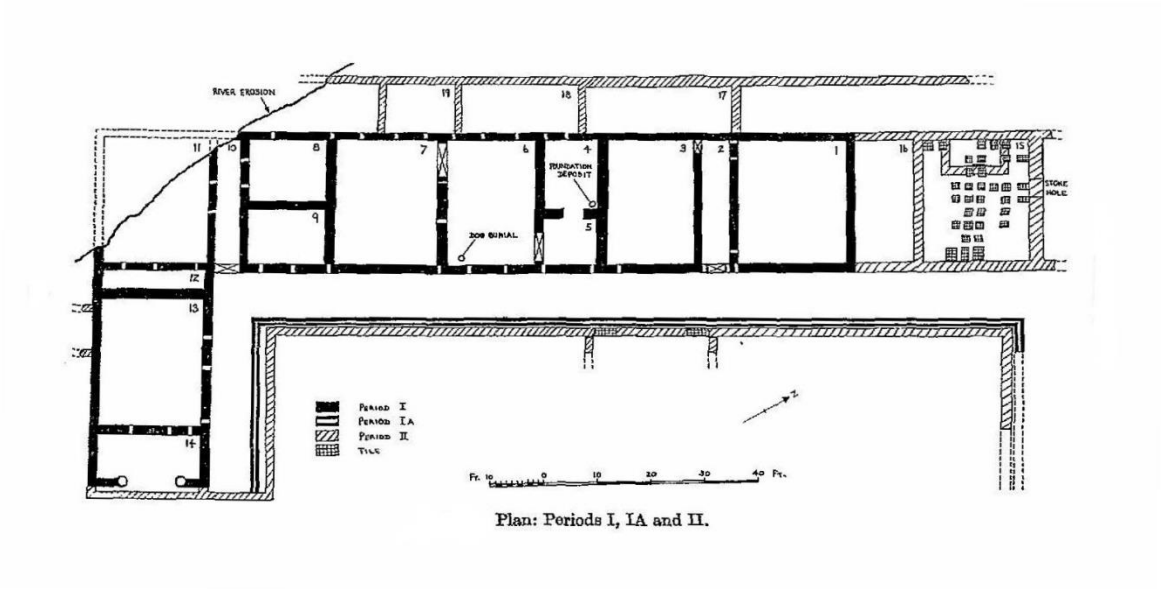


Fig. 6.15 Phased plan of Farningham II Villa (Adapted from Meates 1973, Fig. 1)

A similar process can be seen at the much more modest hall house at Sedgebrook (Fig. 6.16):

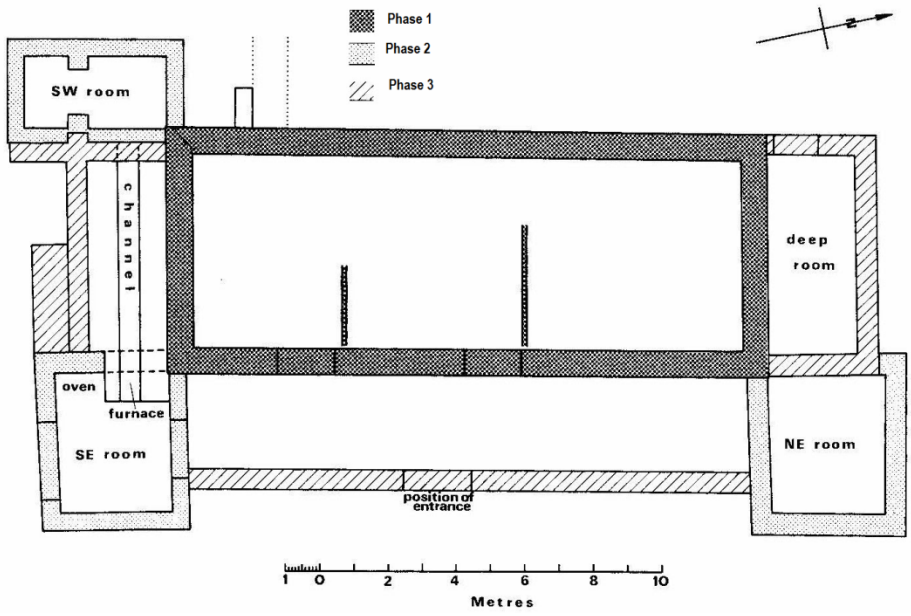


Fig. 6.16 Phased plan of Sedgebrook Villa, Plaxtol (adapted from Crockett 1988)

D.J. Smith (1978) highlighted a number of features of Kent's villas which he felt showed clear indications of continental influence. These included: the early use of mosaic at Eccles and

Wingham (to which we can probably add East Malling); the exceptional length of the house at Eccles (and to a lesser extent at Boxted and Maidstone II); the long water basins present at Eccles and Darenth; the presence of shrines at Lullingstone and Darenth; the presence of cellars or deep rooms at Lullingstone, Chalk, Burham and Hartlip, and a tendency for the anterior *porticus* to front the inner side of the wings as well as the main range. Smith cites only Darenth as displaying the latter feature, but it is in fact present at a number of Kent sites, including Farningham II, Minster and Sandwich (Parfitt 1980), where, unusually the *porticus* may have fronted the entire building. We can also add to the number of potential shrines, if J.T. Smith is correct in his interpretation of the open-ended cells at Eccles and Farningham II (1997, 55), whilst a heptagonal water-basin or fountain at the Mount could be yet another (Houliston 1994, 81). A further deep room is present at Sedgebrook (Crockett 1988), whilst a number of severely truncated buildings on Thanet seem to be evidenced only by the remains of cellars or sunken rooms (e.g. Moody 2005; 2007; nd).

Sedgebrook (Fig. 6.16) and Sandwich (Fig. 6.17) both appear to be of the 'narrow hall' type (Smith 1997, 32) but adapted to winged corridor form in different ways. Sedgebrook appears to be a 'narrow hall' interpretation of German villas of the Stahl/Mayen type where the lateral rooms (or 'pavilions') which flank the *porticus* are offset from the main hall and in which cellars are common (see Smith 1997, 25). By contrast, Sandwich's wings directly abut the central hall.

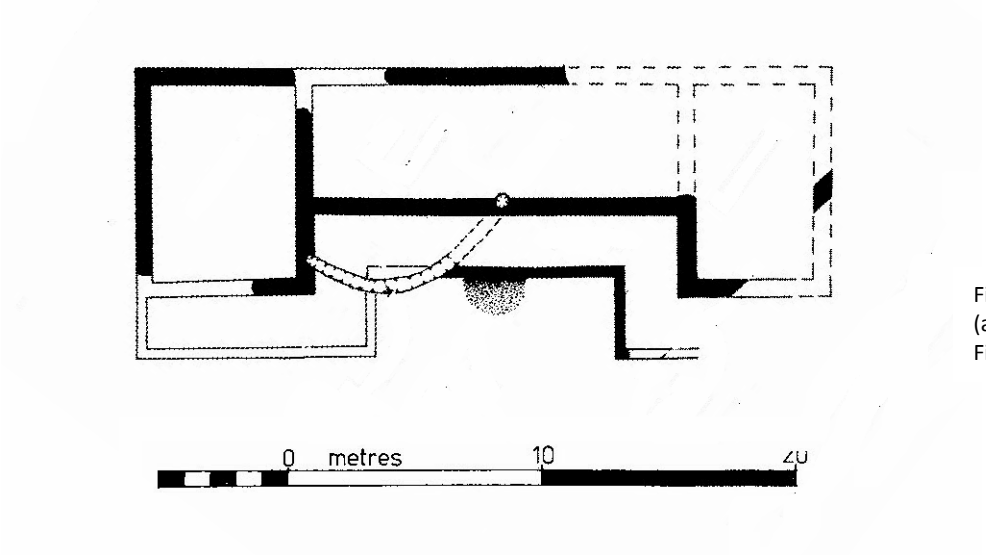


Fig. 6.17 Sandwich Villa (adapted from Parfitt 1980, Fig. 1)

The plans of some of Kent's villas are hard to interpret. Those at Otford and Ash-cum-Ridley have been interpreted variously as aisled buildings or as buildings with open courtyards. Few villas in Kent have courtyards, although one appears to have existed at The Mount, Maidstone which may be compared with that at Ash-cum-Ridley, albeit that the latter is built on a considerably more modest scale. Both appear to have had residential blocks at one end, attached to a courtyard with a bath facility on one side and lean-to structures.

The Mount is unusual for a number of reasons. The villa building is relatively late, built not before 175; it seems to replace an aisled building (the latter more usually being later adjuncts to villa houses); it seems to have been of relatively short duration, being perhaps the only major villa in Kent not to survive into the 4th century and it appears to be the only villa in Kent built to a 'back-to-back' design (Fig. 6.18).

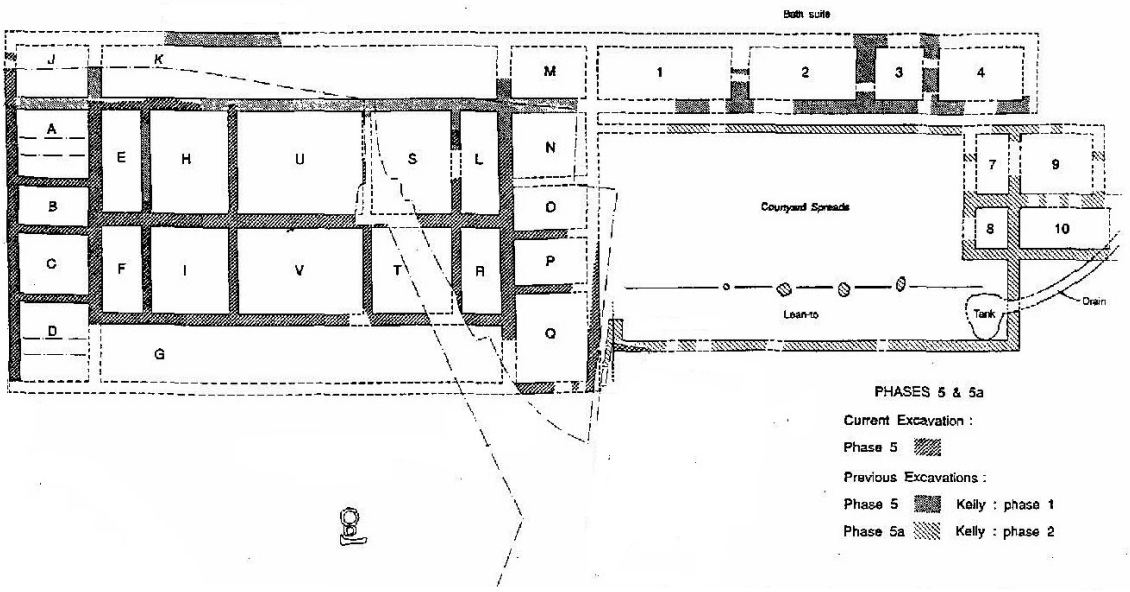


Fig. 6.18 The Mount, Maidstone (adapted from Houliston 1994, Fig. 6)

The symmetry of the design and the provision of front and rear *porticus* suggest strongly that this might be a case of joint-proprietorship, a concept much discussed in the context of the apparent existence of multiple 'units' of rooms within row houses and the existence of multiple residential buildings on villa sites (Smith 1997; Scott 1988; Rippengal 1993; Millett 1990a, 198-9; Perring 2002, 202-6). Alternatively, it might be a *mansio*, particularly if (as far from demonstrated) Maidstone was a small town/roadside settlement.

6.4.5 A regional tradition?

Some other design aspects of Roman houses in Kent are worthy of mention. Booth (2011, 284-286) has noted a possible regional type which he terms "concentric buildings" (Fig. 6.19). These normally seem to be subsidiary buildings and he gives examples from Keston (just outside the present study area), Minster (Building 4) and Thurnham; the latter was unfortunately not fully excavated. These three buildings all have two central rooms[xv] (divided by a central corridor at Thurnham and Keston) and are surrounded by a 'corridor' wide enough to have been used as a room. Booth likens them to a category of building which J.T. Smith (1997, 142) defines as "A…problematic group … [which has] porticuses running continuously (or nearly so) around a comparatively small row-house, so that the amount of what is commonly called 'corridor' is altogether disproportionate to the amount of living-space".

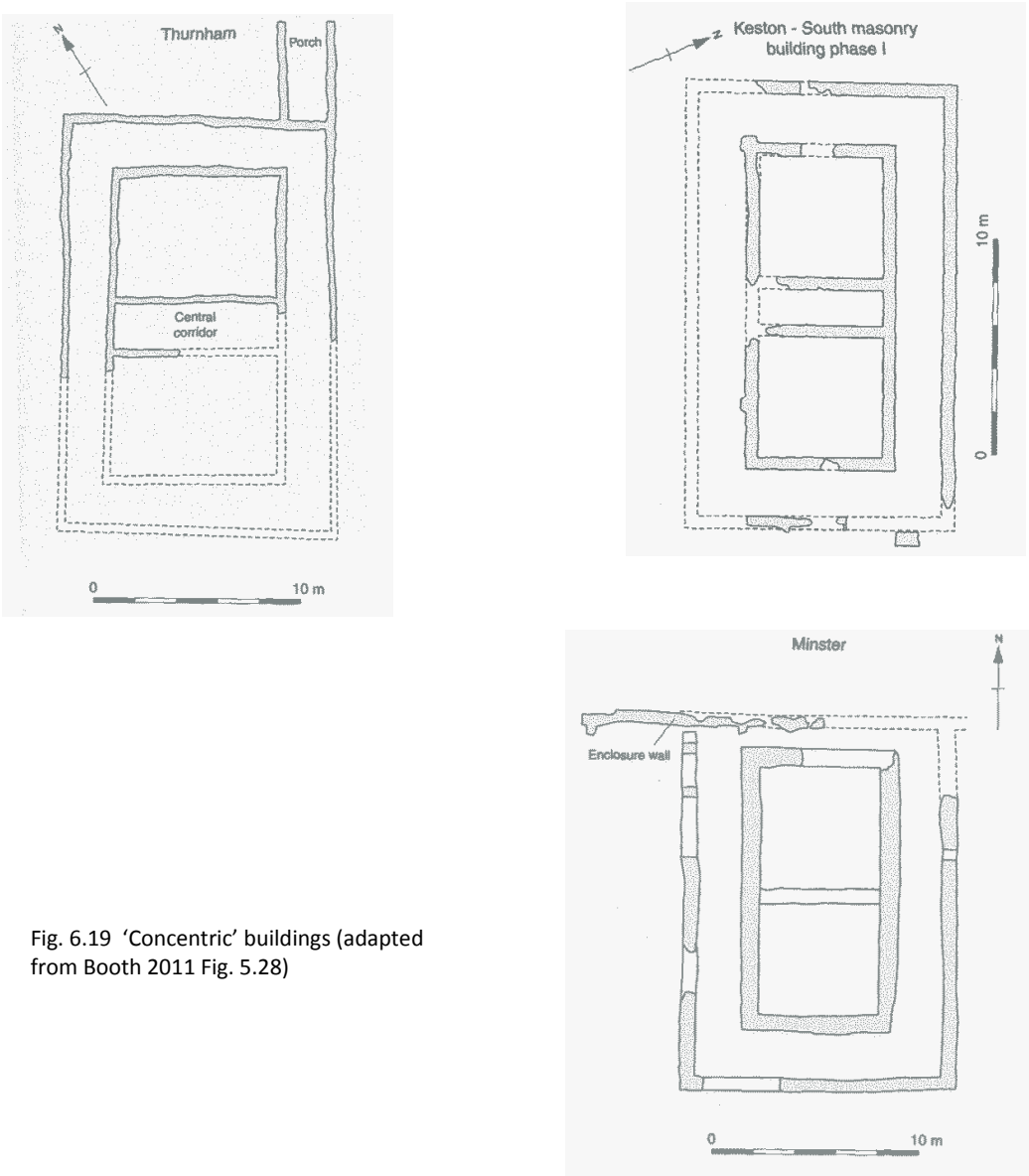


Fig. 6.19 'Concentric' buildings (adapted from Booth 2011 Fig. 5.28)

Further buildings may be compared to these. Both Buildings 1 and 5 at East Farleigh, have two central cells and a relatively wide corridor on three sides (Fig. 6.20):

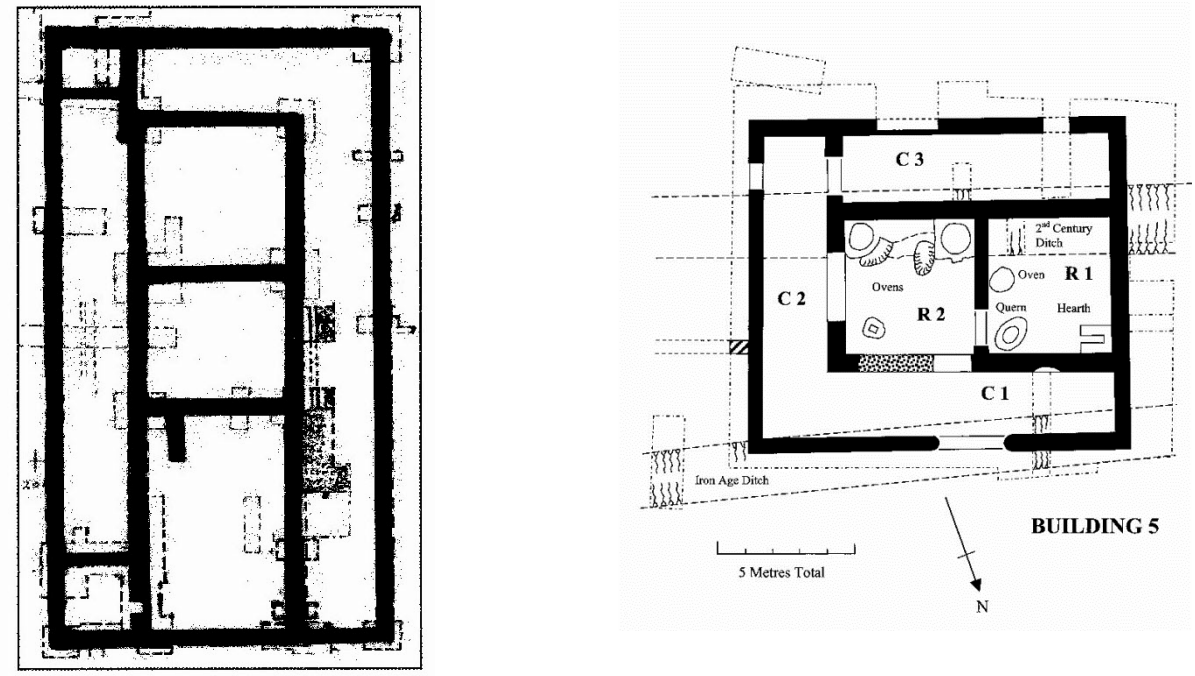


Fig. 6.20 Buildings 1 and 5 at East Farleigh (drawings courtesy of A. Daniels)

Building 1 has in turn been compared to a building known only from cropmarks and resistivity survey at Lenham (Fig. 6.21) although this apparently has a more complicated internal structure.

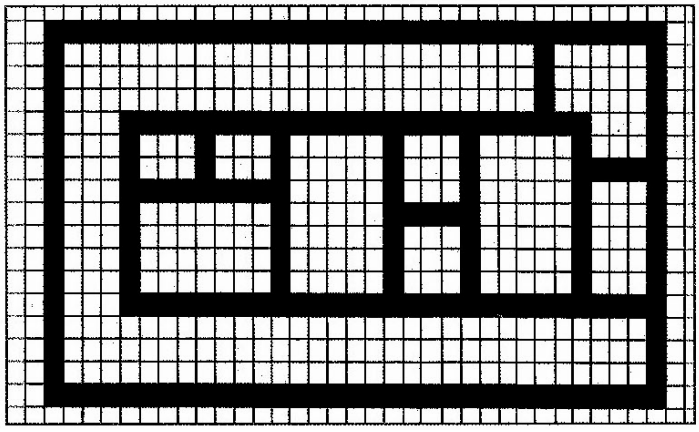


Fig. 6.21 Interpretation of resistivity survey of Roman building at Lenham (adapted from Feakes 2007)

Parfitt notes also a broad comparison between buildings of the 'concentric' type and Block A of the villa complex at Darenth, although this building seems to have functioned in a very particular way. This block, an addition to the original house, was characterised by a central core of two unheated rooms, surrounded on three sides by a suite of six rooms with pillared hypocausts. The function of these seems to have been to provide heat to the central rooms: pillared hypocausts produce a much higher temperature than the later channelled type and are rarely found outside bath buildings (Perring 2002, 128). Interestingly at a later stage, one of the central rooms was provided with a channelled hypocaust (Black 1981, 170-1). Perhaps significantly, a pillared hypocaust was inserted into the south east angle of the corridor of Building 4 at Minster suggesting a similar method of indirect room-heating.

These buildings seem to fit into a more general trend of 'corridors' or *porticus* being prominent features in Kent. Although an exhaustive comparative survey has not been undertaken, it does seem that there was a predilection in Kent for having both front and rear *porticus*; these were often wide. The rear corridor sometimes seems to have been later subdivided into smaller cells (as at Eccles); alternatively (as at Thurnham) the front corridor was sometimes balanced from the start by a row of smaller cells at the rear. At Minster, a corridor was added the main villa building which encircled the entire house.

How should we interpret this trend? One not unreasonable suggestion is that it contributes to the debate on whether or not houses were jointly occupied, as the duplicated corridors might give access to complementary suites of rooms. The provision of wide corridors on a range of buildings including ancillary structures and houses of modest proportions (e.g. Sedgebrook), however, suggests that this cannot be the only explanation.

Scott (1990) interpreted winged corridor facades as buffer zones between private family rooms and the outside world. In a response, Samson (1990) pointed out that formality introduced by the corridor would have affected those within the household more than those without. The corridor would facilitate meetings between those entering and leaving the rooms which led off it and at the same time increase the privacy of individual rooms since access was now via the corridor and not through adjacent rooms.

Kent has few villas equipped with grand reception rooms; Lullingstone, with its late apsidal dining room and Folkestone Block A with its large, axially placed room (both with mosaic floors) are exceptions to this rule. Rather than being a barrier to social interaction with the outside world, a large *porticus* might have been used as a reception area, beyond which only

the most privileged ventured; it would thus function in a similar manner to the *atrium* of a classical house and might be a theatre for the display of wealth. It might also be a work area, perhaps particularly suitable for tasks such as needlework, which would be facilitated by natural light likely to be lacking in the interior of buildings:[xvi] weaving and cloth production items were strongly associated with the *atria* of houses in Pompeii (Allison 2004). It might be the haunt, even the dormitory, of personal servants, ready to attend their masters at any hour; these servants themselves might comprise part of a display of wealth.

6.4.6 Villa complexes

As noted (Table 6.1) twenty of Kent's villa sites are known to comprise multiple buildings, with the most frequently associated structures being aisled buildings/granaries and bath houses/bath wings: twelve of 21 recognisable villa complexes incorporated aisled buildings while the presence of a substantial granary at Horton Kirby may imply the presence of a further complex. Sixteen complexes had bath suites, of which at least which ten were in detached buildings. East Malling, poorly understood, may represent another villa complex with detached bath house. Both categories of building, whilst undeniably of practical use, could also be seen as demonstrations of wealth: bath houses by their nature required specialist builders and skilled servants or slaves to operate them, whilst the construction of a large storage facility spoke in itself of the ability to amass large quantities of agricultural surplus. These are not the only ancillary buildings at villa sites, of course, but are the most common and generally the most prominent.

Ideally, one would like to compare the overall morphology and developments of Kent's villa complexes; at present, however, there is little material that bears comparison. Darenth Court, Minster, Thurnham, Snodland and Eccles are all variations on the theme of the courtyard villa where the main residential building and ancillary structures enclose an open space. The individual plans, scales and developments of these villas are, though, quite different and given their individual excavation and publication histories, not to mention problems of dating, further meaningful comparison is difficult within the parameters of this thesis.

At Northfleet, the layout and development of what appear to be the *pars rustica and pars fructuaria* of the villa complex are well understood, with the *pars urbana*, the main residence, divided from the working parts of the complex by a wall, but only partially excavated. At East

Farleigh there are tantalising hints of a range of buildings perhaps surrounding a courtyard (Smith, 1839) but now mostly lost, whilst the most substantial remains are of ancillary buildings.

The wider contexts of many villa buildings are unknown. There are, however, a number of conjunctions of villa houses with aisled buildings/granaries, as at Deerton Street/Hog Brook (Wilkinson 1997; 2009a), Faversham (Philp 1968; Wilkinson 2012b), Wingham (Dowker 1882; 1883; Jenkins 1984) and possibly Horton Kirby (Philp and Mills 1991). This again suggests division in the manner prescribed by Columella (*De re rustica* 1.6.1) into *pars urbana, pars rustica* and *pars fructaria.* Possibly some of these buildings may have been within so far undiscovered or perhaps more ephemeral (hedged?) enclosures.

6.4.6.i Bath houses (Table 6.11)

Only three villas not presently known to be associated with other buildings had integral bath suites (Cobham, Ash-cum-Ridley and the Mount). Of these only Cobham was an early (early 2nd century) foundation but its bath suite was a later adaptation. Similarly on villa complexes, there are few integral bath suites directly attached to main villa houses. At Northfleet and Faversham, integral suites were inserted into aisled buildings and at Minster into Building 6, attached to the outside of the perimeter wall. Like Folkestone, Northfleet and Minster additionally possessed detached bath houses. The baths of Block A at Folkestone were a later addition on a site that already had a detached bath house, whilst there is evidence pointing to the existence of an undiscovered detached bath block contemporary with the proto-villa at Thurnham.

There thus seems to be a trend for entirely detached bath houses[xvii] or the placement of bath suites in secondary buildings, with, in some cases, the addition of further facilities attached to the main house. Moreover, these detached bath houses tend to be associated with early foundations including the early phases of Thurnham and Eccles.

HER No	Site name	Type of site	Site dates	Bath House	Bath house dates	Notes
TQ 65 SW 4	Allen's Farm	Villa complex	2nd half 1st - 4th century	Detached	c. AD 125-3rd century	
TQ 66 NW 15	Ash-Cum-Ridley	Villa	Mid-2nd –mid 3rd century	Integral	Uncertain	
TQ 96 SW 191	Bax Farm	Villa complex	Unknown	Detached	Late 4th -4th/5th century	Octagonal; mosaics
TR 06 SW 212	Blacklands	Sanctuary?	Late 1st -?5th century	Detached	c. AD 150-200-c. AD 300-350	Mosaic; complex of 10 buildings interpreted as rural sanctuary with theatre; possible 5th century timber hall built over bath building.
TQ 75 SE 1	Boughton Monchelsea	Unknown	(Bath house only)	Detached	Unknown, but coins from Claudius- Valens & Pre-Roman	
TQ 67 SE 15	Chalk	Possible villa	1st-3rd century	Detached	Early 2nd-3rd century	Converted to domestic use in 3rd century. Near cellared building; additional substantial unexcavated building in vicinity
TQ 66 NE 23	Cobham Hall Modest villa (C2-4)on pre-existing C1 site	Villa	c. AD 100-354	Integral	In use in 3rd century, possibly from later 2nd century	
TQ 57 SE 30	Darenth (= "Darenth Court")	Villa complex	?Late 1st -2nd half of 4th century	Detached	Late 1st-early 2nd century	
				Integral	Mid-late 2nd – 2nd half 4th century	Block D. Swimming bath added Late 3rd/early 4th century; baths converted to other use and new baths constructed from swimming pool in later 4th century
				Integral	Late 3rd/early 4th century – second half of 4th century	Block E
TQ 96 SE 22 & SE 1055	Deerton St Villa & Hog Brook aisled barn	Villa complex	Late 1st –late 4th/5th century	Integral	Unknown. Appears to be addition	In winged corridor villa
TQ 75 NW 6	E Malling	Probable villa complex	1st-4th century	Probably detached	Mosaic probably early 2nd century	Presence of bath house adduced from wall mosaic
TQ 76 SW 10	Eccles	Villa complex	c. AD 65- 4th century	Detached	Late 1st-early 2nd century- c. AD 400	First phase had circular laconium and mosaics. Latest phase has piscina.
TQ 56 NW 15 & 14	Farningham I	Villa complex	Late 1st – 4th century	Detached	Coins of AD 193/211- late 3rd century	Assumed to be associated with Farningham II
TQ 56 NW 15	Farningham II			Detached	Unknown	Joined by corridor to main house
TR 06 SW 41	Faversham Winged corridor villa and aisled building	Villa complex	c. AD 75 – 4th/5th century	Integral	Unknown	Bath suite in aisled building
TR 23 NW 11	Folkestone East Wear Bay	Villa complex	Early 2nd century-c. AD 370	Detached	As villa	Mosaic; possible *opus sectile.*
				Integral	Uncertain	Integral Bath suite inserted as later feature of Block A

Table 6.11 Bath houses: contexts and dates (continued overleaf)

HER No	Site name	Type of site	Site dates	Bath House	Bath house dates	Notes
TQ 94 NW 13	Little Chart	Possible villa	(Bath house = only building excavated)	Detached	Late 1st-4th century	Mosaic (1st century); possibly abandoned before rebuilding in 4th century
TQ 56 NW 7	Lullingstone	Villa complex	c. AD 75-420	Semi-detached	c. AD 180-380/390	
TR 36 SW 67	Minster (= Abbey Farm)	Villa complex	c. AD 50/70-3rd century	Detached	Late 1st/early 2nd - early 3rd century	
				Integral	Probably 2nd century	Later addition to Building 6
TQ 67 SW 38	Northfleet	Villa complex	c. AD 70- c. AD 380	Detached	c. AD 150/160-c. AD 200-250/60	Excavation in 1977-80 recorded mosaic tesserae
				Integral	c. AD 250-380	Bath suite added to remodelled East range (former aisled building)
TQ 95 NW 23	Rodmersham	Villa complex	Unknown	Integral	Unknown	
TQ 76 SW 23 & 454	Snodland	Villa complex	2nd half 1st - 4th century	Detached	1st –mid/late 3rd century	To west of main complex. Replaced by aisled building. Mosaic tesserae found.
				Detached	By 3rd century	Within main villa complex
				Integral (possible)	After mid/late 3rd century	Possible bath suite within aisled buiding which replaced early bath house
TQ 65 SE 19 & SE 76	Teston Villa	Villa complex	1st – late 4th/early 5th century	Integral	Uncertain	Bath house originally discovered in 1872; subject to ongoing investigation.
TQ 75 NE 28	The Mount Villa	Villa	c. AD 150-275/325	Integral	Part of original design, falling out of use by 2nd quarter of 3rd century	
TQ 75 NE 374	Thurnham	Villa complex	c. AD 60/70-420	Possible detached	Late 1st century	Implied by presence of early box flue tiles and voussoirs
				Integral	Last quarter of 2nd century, demolished/collapsed by late 3rd century	Unheated addition to main building
TR 25 NW 14	Wingham	Villa complex	1st – mid 4th century	Detached	Late 1st/early 2nd – 4th century	Mosaics (late 1st -early 2nd century)
TR 36 SW 67	Minster Abbey Farm	Villa complex	c. AD 50/70-3rd century	Detached	Late 1st/early 2nd - early 3rd century	
				Integral	Probably 2nd century	Later addition to Building 6
TQ 67 SW 38	Northfleet	Villa complex	c. AD 70- c. AD 380	Detached	c. AD 150/160-c. AD 200-250/60	Excavation in 1977-80 recorded mosaic tesserae
				Integral	c. AD 250-380	Bath suite added to remodelled East range (former aisled building)
TQ 95 NW 23	Rodmersham	Villa complex	Unknown	Integral	Unknown	

Table 6.11 (cont.) Bath houses: contexts and dates (continued overleaf)

HER No	Site name	Type of site	Site dates	Bath House	Bath house dates	Notes
TQ 76 SW 23 & 454	Snodland	Villa complex	2nd half 1st - 4th century	Detached	1st –mid/late 3rd century	To west of main complex. Replaced by aisled building. Mosaic tesserae found.
				Detached	By 3rd century	Within main villa complex
				Integral (possible)	After mid/late 3rd century	Possible bath suite within aisled building which replaced early bath house
TQ 65 SE 19 & SE 76	Teston Villa	Villa complex	1st – late4th/early 5th century	Integral	Uncertain	Bath house originally discovered in 1872; subject to ongoing investigation.
TQ 75 NE 374	Thurnham	Villa complex	c. AD 60/70-420	Possible detached	Late 1st century	Implied by presence of early box flue tiles and voussoirs
				Integral	Last quarter of 2nd century, demolished/collapsed by late 3rd century	Unheated addition to main building
TR 25 NW 14	Wingham	Villa complex	1st – mid 4th century	Detached	Late 1st/early 2nd – 4th century	Mosaics (late 1st early 2nd century)

Table 6.11 (cont.) Bath houses: contexts and dates

A number of further bath houses exist which do not seem at present to be directly associated with known villas. An earlier study (Blanning 2008a) suggested that Kent has a particularly large number of detached bath houses, predominantly of early date. Some of these have been problematized as being 'isolated', but discussion has formerly rarely gone further than questioning whether they were indeed isolated or belonged to undiscovered villas. In fact just three sites, Baston Manor (outside the modern county), Boughton Monchelsea and Kemsing have so far shown no sign of accompanying structures of any kind. The bath house at Boughton Monchelsea is, however, situated near a major road in an area with dispersed but significant Roman evidence including a poorly understood house (Chart Sutton), a walled cemetery and the Furfield Quarry site (Mackinder 2006) with its multiple timber buildings. The site at Kemsing is in a densely built-up area and other buildings may have been lost.

A number of salient points may be made. First, as pointed out, these detached bath houses tend to be of earlier date; the construction of a bath house - perhaps even more so than the construction of a rectilinear, multi-celled house – implies the adoption of new modes of behaviour and a degree of savoir faire at a relatively early stage. Taylor (2011, 182) suggests that there may have been a heightened sense of social prestige associated with bathing and grooming during this period in south-eastern Britain and associates this with Eckardt and Crummy's (2008) findings on the use of toilet instruments in southern Britain.

Secondly, the majority of sites with detached bath houses, whether villas or not, were located close to (particularly riverine) transport routes (Fig. 6.22) and have associated evidence pointing to involvement in trade, industry and/or commerce (Blanning 2008a). Other bath houses outside the county similarly have industrial associations (such as Hartfield-Garden Hill (Money 1977) and Beaufort Park (Brodribb et al. 1988) East Sussex). The economic activities associated with these villas clearly went further than agriculture and even where there is evidence of large scale agricultural production or storage, villa owners must have been involved in business deals and/or negotiations with the authorities for the paying of tax, or collection of the tax in kind.

This combination of a distribution bias in favour of locations close to transport routes with associated evidence pointing to trade, crafts and commerce supports Todd's (1978, 201) conclusions concerning the "early rich villas" of the south east: namely that the continental influence which he detects, which may be extended to the bathing habit, was spread via trading contacts between Kent and the near continent, particularly *Gallia Belgica*. The question of whether these houses and baths were owned by Britons or Gauls is moot; one might imagine that cross channel traders of whatever origin were used to the facilities provided by public and privately owned baths on the continent, however.

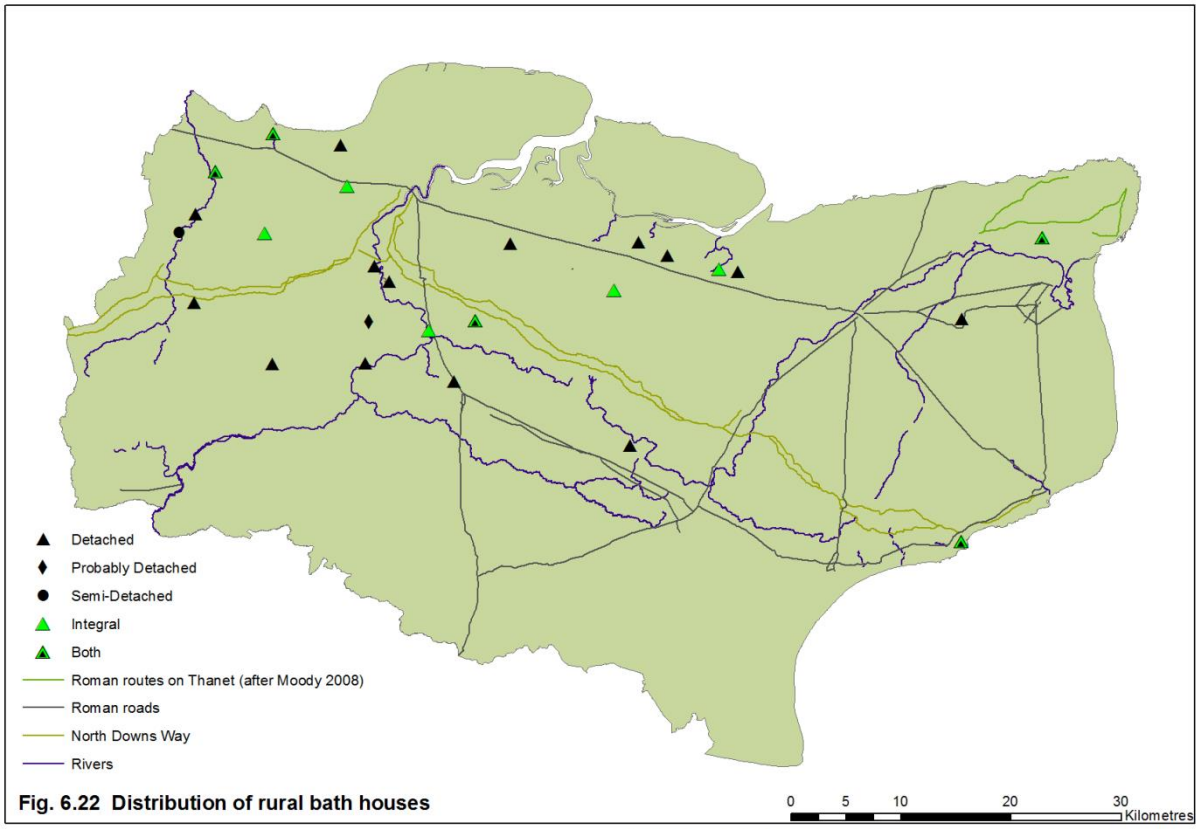


Fig. 6.22 Distribution of rural bath houses

As we have noted, Kent's villas rarely have lavish reception rooms; nevertheless, some of the early bath houses seem to have had mosaic floors at a point when such were absent from the main house (Black 1987, 53), or in the case of Thurnham may have been present even before the construction of the masonry villa. Placing the evidence for early, well-appointed, detached baths alongside that for relatively modest living accommodation might suggest that detached bath houses became popular at this early date in order to provide suitable venues for meetings between villa-owners (themselves possibly *negotiatores*) and clients. The bath house would have been a prime area for the display of both wealth and of knowledge of modern manners; investment in embellishing the interiors of houses was less important as these areas would not be seen by important outsiders.

In this context it is curious that Northfleet's villa, which had a clear industrial and trading focus, does not seem to have provided evidence of an early bath house; it is of course possible that such an early building has simply not been discovered but lay further south adjacent to the presumed main villa building (and potentially the source of the *opus sectile* noted above). Despite the size of the villa-complex, the detached bath block at Darenth was modest in proportions and appears to have had a short life. This villa did, however, possess a range of rooms suitable for entertaining, albeit that none possessed mosaic and few were tessellated.

Detached bath houses at a number of locations (Allen's Farm, Minster, Northfleet,) went out of use before the end of the life of their sites, generally in the 3rd century, whilst that at Chalk was converted for domestic use; at Little Chart, the baths seems to have been rebuilt in the 4th century after a period of abandonment. The baths at Thurnham and The Mount, both situated in positions where they might have been accessible without entry to the house similarly went out of use in the 3rd century. This adds to the picture of changed circumstances in the late Roman period: the villas might have endured, but life was not necessarily as luxurious and the loss of bathing facilities chimes with the conversion of domestic rooms to industrial or agricultural use.

6.4.6.ii Aisled buildings and Granaries

Although continental origins have cautiously been suggested (J.T. Smith 1963) aisled buildings are generally considered to be a particularly Romano-British phenomenon, especially those that may be interpreted as (secondary) houses on villa complexes (Hadman 1978, 187; Scott

1988, 100). The term is a neutral one, describing a class of structures with twin rows of parallel roof supports which is otherwise disparate in matters of size, construction technique, development and probable use. Where domestic rooms are present, these are typically at one end of the building (Smith 1963, 4; Morris 1979, 56, Perring 2002, 53) although some, as at Brading, Isle of Wight, seem to have developed into more complex houses. Other aisled buildings show no such subdivisions and appear more utilitarian in nature, sometimes evidencing agricultural or industrial use, although the latter may also be present in buildings with a potential domestic component. J.T Smith (1963; 1997, 36-39) and Scott (1998, 100-154) discuss those buildings which appear to be partially or completely domestic in nature as "aisled houses" or "aisled farmhouses", whilst Morris (1979) has concentrated on those which may be classed as agricultural buildings.

The known distribution of such buildings has expanded since the time of Hadman's paper, when hardly any examples were known from Kent. The present survey finds aisled buildings on thirteen sites, of which eight are confirmed villas (Table 6.12). Grange Farm, Gillingham (Seddon 2008) is almost certainly a villa complex where the house has not been identified (probably lying beneath the neighbouring manor). It has been suggested that the aisled building partially excavated at Downlands, Walmer might similarly represent part of a villa complex (Jarman 2010, 84) although there is no conclusive proof of this. Furfield Quarry, Boughton Monchelsea (Mackinder 2006a) yielded evidence of a number of Romano British buildings including two aisled buildings and is perhaps associated with the same estate as the detached bath house mentioned above. A site at Glebeland, Harrietsham (Jarman 2002) meanwhile produced exceptional evidence of nine substantial aisled buildings. Again, if these are part of a villa estate, it remains to be discovered; the large number of buildings concerned is unusual, however, (it is not clear if they are contemporaneous) and may hint at a somewhat different (perhaps official?) undertaking.

HER No	Site name	Site dates	Aisled building Constructed	External dimensions (m) where known	Outer wall	Aisle	Subdivisions	Embellishments	Evidence of Agricultural Activity	Notes
TQ 57 SE 30	Darenth Villa	?Late 1st -2nd half of 4th century	Unknown	Not completely excavated	Masonry	Masonry	No			"Room 65"
			3rd century	43.8 x 17.64	Stone-founded	Piers on sleeper walls	Yes	Western aisle and Room 9 tiled	Corn-driers	Block G; culmination of several phases
TQ 96 SE 22 & SE 1055	Deerton St Villa & Hog Brook aisled barn	Late 1st – late 4th/5th century	1st century	35.7 x 15.4	Masonry	Stone piers	Yes			Said to be constructed over earlier building; use continues to at least 5th century
TR 34 NE 258	Downlands, Walmer	Post AD 43 – 3rd century	Late 2nd/early 3rd century	Length unknown; w = 13	Stone-founded	Posts	Unknown		Grain processing and possible malting (deposits not directly associated with building	
TR 06 SW 41	Faversham Winged corridor villa and aisled building	*c.* AD 75 – 4th/5th century	Site said to have produced pot of 1st to 4th century date	45 x 15	Masonry	Unknown	Unknown	Bath suite		Unpublished; 6th century timber building built over collapsed structure
TQ 75 SE 141	Furfield Quarry	LIA - mid 2nd century, declined after 120	c. AD 120-250	17 x 12.5 (?)	Probably stone-founded	Posts	No			Building 5
			c. AD50-120	17 x 12.6	Timber posts	Posts	Possible			Building 6
TQ 85 SE 138	Glebeland, Harrietsham	LIA- Late 2nd/early 3rd century; reoccupation from Late 3rd/early 4th-late 4th century	Late 3rd/early 4th century	>20 x approx. 13	Stone-founded	Posts	No			9 buildings; scant details all suggested to have been aisled buildings of similar dimensions
TQ 76 NE 401 & NE 425	Grange Farm	1st – early 5th century	c. AD 250/300	18 x 15 (truncated)	Stone-founded	Dwarf walls and pillars	Possible	Remnants of tiled floor	Believed to have raised floor for grain storage; replaced earlier raised granary.	In later phase, used for metal working

Table 6.12 Aisled buildings (cont. next page)

HER No	Site name	Site dates	Aisled building Constructed	External dimensions (m) where known	Outer wall	Aisle	Subdivisions	Embellishments	Evidence of Agricultural Activity	Notes
TQ 86 SW 1	Hartlip Villa	Unknown	Unknown	21 x 15	Stone-founded	Report mentions column bases	Unknown			Appears from plan to be later than bath house
TQ 67 SW 38	Northfleet Villa	c. AD 70 - c. AD 380	AD 160-200	Approx. 40 x 14*	Stone-founded; probable wattle and daub walls	Posts	Yes	Bath suite	Malting (though deposits associated with feature disuse)	Eastern range
			Second half of 3rd century	Approx 15m wide; full length unknown	Stone-founded; probable wattle and daub walls	Posts, later replaced by stone walls	Possible		Malting	Western range
TQ 76 SW 23 & 454	Snodland Villa	2nd half 1st -4th century	Mid 3rd century	Not completely excavated	Stone-founded	Posts	Possible	Possible bath suite		Probable aisled building replacing early bath house (incomplete plan)
			Unknown	Approx. 22 x 16*	Stone-founded	Stone founded	Yes			"Barn"
TQ 75 NE 28	The Mount Villa 150-235	c. AD 150 (pre-villa) - 275/325	c. AD 175-225	29 x 10.5	Timber (beam slots); apparent masonry wall at north end	Posts	Possible		Possible animal housing; grain processing and probable brewing in vicinity	Complete plan unknown
TQ 75 NE 374	Thurnham Villa	c. AD 60/70-420	c. AD 120/150	21.2-21.6 x 13.6-13.9	Stone-founded	Posts	Yes		Spade shoe	
TR 25 NW 14	Wingham Villa	1st – mid 4th century	? early 2nd century	27 x 16	Stone-founded	Plan shows flint foundations replaced by stone (?pier) bases	Yes			Brief notes published only

*Dimensions approximated from plans

Table 6.12 (cont.) Aisled buildings

As suggested above, there is some considerable variation between Kent's aisled buildings. Some, such as Hog Brook (Wilkinson 2009a), seem to have been of true basilican form and of some considerable height, whereas others such as Downlands, Walmer, may have been spanned by a single roof as suggested by J.T Smith (1963, 25-27). There is some considerable variation in size, with known lengths ranging from 17 to 45 metres and widths from 10.5 to 17.4 metres. There is also some variation in the ratio of length to width; the buildings appear to fall into two groups, those with lengths of 29m and over having a mean ratio of 2.7:1 and those below this size a mean ratio of 1.5:1 (Fig. 6.23).

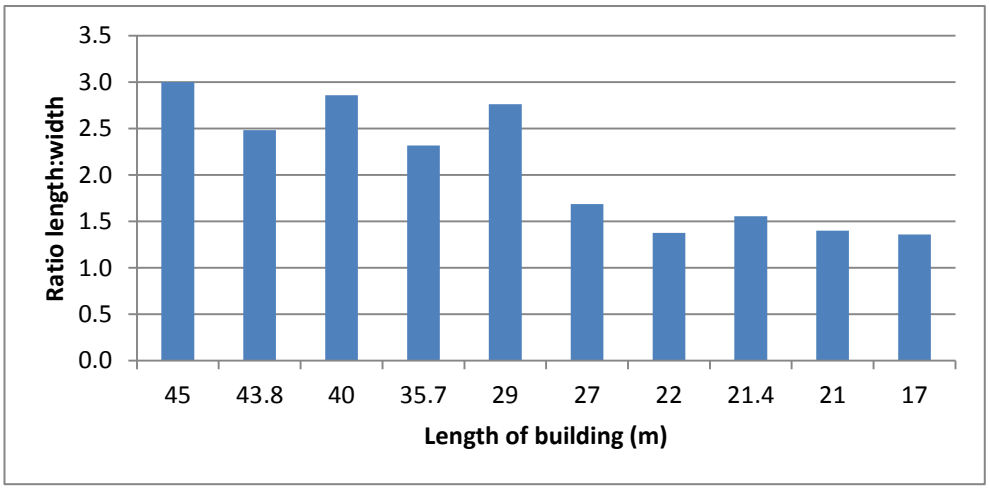


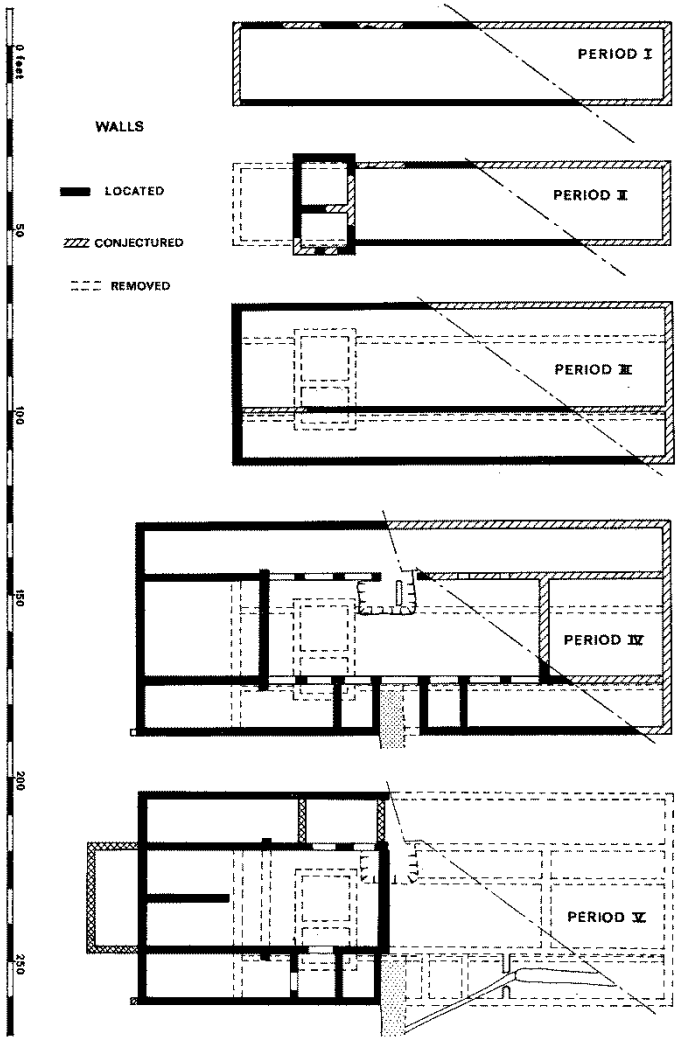
Fig. 6.23 Aisled buildings: ratio of length to width

In a survey of aisled buildings believed to have been of agricultural use, Morris (1979, 64) found an even greater degree of variation but that 74% had a range between 1.5:1 and 2.5:1. The ratios of the Kent buildings is not out of line with this, but three of the five larger ones (Faversham, Darenth G and Northfleet east range) have length to width ratios above Morris' upper figure. This is probably a merely a reflection of the great length of these buildings and the technological challenge posed by roofing them if their naves were proportionately widened. The naves of Darenth G and Northfleet east range are approximately 8.8m and 7m respectively; Morris (ibid., 66) finds that the majority of aisled building naves fall between 5m and 7m in width although the widest catalogued was 10.1m.

As mentioned above, evidence of timber aisled buildings is sparse with only one confirmed entirely post-built structure, at Furfield Quarry. The status of the building at Waterbrook Farm must remain conjectural, whilst that at The Mount, Maidstone appears to have had a masonry gable end. All the remaining aisled buildings have, at the least, stone-founded outer walls, although these frequently only survive to foundation level and vary greatly in width and quality. Some may have supported only dwarf walls with timber superstructures, whereas the buildings at Hog Brook and Faversham had substantial walls faced with Kentish Ragstone. Hog Brook's aisles were defined by stone piers; Darenth ('Room 65' and Block G), Snodland 'barn',[xviii], Wingham and a later phase of Northfleet's western range also had aisles defined by stone walls and/or piers on sleeper walls. For more modest buildings, however, stone-founded outer walls and aisles formed by timber posts seem to have been the norm.

A significant proportion of these buildings seem to have had subdivisions of one kind or another forming smaller, potentially domestic, rooms. At Thurnham, one end of the building was partitioned off and the nature of the small finds recovered (including a mirror, gaming counter, basin handle, seal box lid and key) indicates domestic occupation (Lawrence 2006, 83). Domestic occupation is also indicated by tiled floors in compartments at Darenth Block G and Grange Farm, whilst bath suites were sometimes inserted into such buildings as at Northfleet, Faversham and possibly Snodland.

Only rarely can the development of one of more complex building be traced, but it is evident that the biographies of Kent's aisled buildings could be quite different (Fig. 6.24). Darenth Block G started life in the earlier 3rd century as a long hall with one corridor, itself replacing an earlier linear building on the same alignment. It was almost entirely rebuilt in the middle of the century, incorporating some of the earlier structure, to create an aisled building with a central hall of seven bays, tiled flanking corridors and rooms at each end. That at the south end was subdivided and contained two corn-driers. The entrance was on the east long side, flanked by two small rooms, one of which may have housed a small domestic shrine (Philp 1973, 130). In its final, 4th century phase, the building was drastically altered (after a period of abandonment?), reduced in length and lost its aisled aspect.



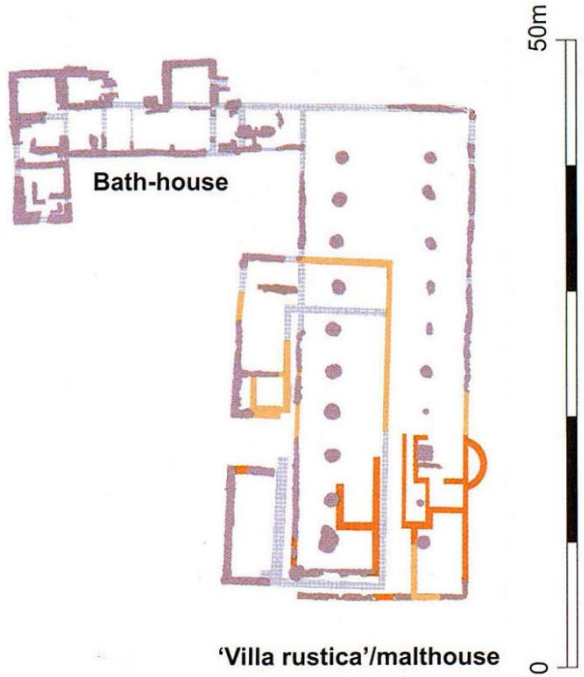


Fig. 6.24 Development of the aisled buildings at Darenth (Block G; left) and Northfleet (eastern range; right). Adapted from Philp 1973; Fig. 40 and Biddulph 2011a, Fig. 3.26)

The rather earlier eastern aisled building at Northfleet similarly replaced an earlier hall-type building in the second half of the 2nd century, apparently only shortly after the earlier building had been expanded, but in this case the original building's later additions (entrance and western range of rooms) were retained and the aisled building additionally appears to have abutted the bath house (Biddulph 2011a, 166). In the later 3rd century, the building underwent internal remodelling, possibly after being damaged by fire[xix] and received a small bath suite, initially recovered by Steadman (1913). It appears to have retained this form until the villa's abandonment, c. AD 380.

Aisled buildings typically appear from the mid-2nd century onwards (Taylor 2011, 186) although as has been seen, at least one timber aisled building in Kent dates from the 1st century. Hog Brook is also claimed as a 1st century foundation, the more remarkable as it overlies the foundations of an earlier building (Wilkinson 2009a, 26), whilst the aisled building at Wingham apparently dates to the end of the 1st or beginning of the 2nd century (Jenkins 1967). At the other end of the scale, there appears to be evidence of very late use of some of the more substantial buildings, or at least of their sites. Evidence of structural repairs to the collapsed west and east end walls of Hog Brook was dated from the 5th to the 7th centuries, whilst sherds of two 'Anglo-Frisian' vessels were found at Wingham, indicating early reoccupation if not continuity (Jenkins 1966; 1967). At Faversham, the sill beams of a large, 6th century timber building were dug into the remains of the collapsed building (Wilkinson 2012b).[xx] These buildings, or their footprints, retained relevance in a time when hall houses were the norm and multi-roomed 'villa' houses had outlived their social purpose.

The uses to which these buildings were put have been discussed by numerous writers. J.T Smith (1997) distinguishes between aisled houses, including accommodation for both family and livestock at least in the earliest stage, and aisled buildings devoted predominantly to agricultural or agricultural purposes. Morris (1979), however, found that few buildings accommodated animals; The Mount, Maidstone is a rare example of an aisled building that *may* have been shared by both livestock and people. Scott similarly distinguishes aisled work buildings without domestic function from those partitioned to create farmhouses (1988, 116).

Where buildings appear to incorporate dwelling space ("developed" buildings; Perring 2002, 53), several interpretations have been proposed. Scott (1988, 147) suggests that "aisled farmhouses" functioned as "home farms", viz. the business end of a villa estate

whilst noting that they differed in status and often date from the corridor houses that they often accompany. She thus dismisses the idea that they housed a second family under a joint proprietorship arrangement as proposed by J.T. Smith. She likewise rejects the proposal that these aisled farmhouses housed estate workers or slaves (Richmond 1969, 65) on account of the level of material comfort displayed by some and favours a modification of Frere's (1978, 309) suggestion that aisled houses accommodated the *villicus* or farm manager, proposing that the *villicus* was likely to be a relation (probably the eldest son) of the owner (ibid., 151).

Although it is valid - indeed essential - if we are to come to an understandings of the workings of Romano-British society – to analyse the plans and embellishments of buildings in this way, we must also face the likelihood that even developed aisled buildings and cognate forms on villa sites were in fact used in different ways and accommodated people of a range of statuses. Despite Scott's caution that the phases of some buildings may simply represent stages in construction (1988, 116), the biographies of buildings such as Northfleet's eastern range and Building G at Darenth suggest that they indeed may have had different uses at different points in their histories.

The rooms created by internal partitions may have had a variety of functions besides providing living space and could in some cases have been offices for the estate manager or locations for meeting officials and/or clients. Associated bath suites might have been for the benefit of those dwelling in the building but could also have provided additional, private bathing facilities for those living in the main house if a detached bath house was in some way 'public' (i.e. conceived primarily for socialising with those from outside the domestic unit) or indeed even been connected with business transactions associated with the aisled building.

One feature that is notable is the prominence that is given to these structures on villa estates. As Taylor (2011, 186) points out, these and other large ancillary buildings, such as granaries and the 'concentric' buildings discussed above and the large timber post-built buildings discussed below, are generally placed to the fore, flanking the approach to the villa and often dwarfing the corridor house in size. These truly represent an "architecture of abundance" (Perring 2002, 173-185). The huge, military-style (Morris 1979, 32-34) granaries at Lullingstone and Horton Kirby were capable of storing between 150 and 220 tonnes of grain (Taylor 2011, 187), demonstrating the control of considerable agricultural wealth, whether this was the wealth of a single estate, an amalgamation of estates or from

a wider area. Storage on this scale indicates not just production beyond subsistence, but the control of surpluses and possibly the ability to dispose of these as and when market conditions were favourable (Black 1987, 57). Large granaries and storage facilities might also be needed for the collection of taxes in kind, however. In this case they would indicate the wealth of the regime and the status of those entrusted with collecting and guarding it. Just as many residential ranges of different origins and internal design were given a 'winged corridor' façade, it may be that the external appearance and positioning of the large aisled buildings with their message of wealth and power was more important than exactly what went on in their interiors.

6.5 Concluding thoughts

This chapter has focussed on the rural buildings of Roman Kent. Limitations in the nature of the data mean that although some recent insights into previously unrecognised forms of buildings have been incorporated, the focus has still been on those elements perceived as belonging to the elite. Information on the timber buildings in which many of the more humble members of rural society must have lived is sparse, represented in the main by truncated eavesdrip gullies and little in the way of occupation layers.

Nevertheless, it is important to recognise that although the substantial buildings which form the bulk of the best evidence were owned by the wealthiest strata of society, they also represent the lives of a much wider spectrum of individuals. Just to build a villa required a large and varied workforce: at the top level were those entrusted with designing and overseeing the building process. Raw materials needed to be quarried or gathered: building stone, flints, chalk for lime-making and flooring; clay for bricks and tiles. Tiles, mortar, glass and metal fittings had to be created by craftsmen and labourers of different orders of skill. Skilled carpenters were needed to provide the timber framing.

The running of a villa and its estate required a similarly socially diverse workforce including servants and/or slaves working on the land, in industries associated with the villa, crafting or mending tools, keeping the property in repair, operating the bath house and/or domestic hypocaust system, cooking, working in textiles as well as waiting on the family, whilst overseers might be employed to supervise the staff, the farm and any industrial activities.

We should not, therefore dismiss villas as unrepresentative of the mass of the people. Those who lived and worked in them may have led lives that were in some ways different from those who independently worked small holdings or lived in the new towns or roadside settlements, but the majority of those associated (certainly with the largest) villa complexes and estates would not have been members of the elite. Villas were the centres of the lives of significant numbers of ordinary people.

Although Kent has a number of relatively early buildings it does not appear to have been particularly precocious in the development of villas, chronologically fitting in with developments on the near continent. Its villas and other substantial buildings unsurprisingly show some signs of continental influence, but also some distinct local trends. These include some apparently regional forms of building and construction techniques. On villa sites there is a predilection towards detached bath houses and increased *porticus* space at the expense of large reception rooms, suggesting that in Kent the former may have played a more important role in the negotiation of relationships with those from outside the family whether socially or in official or business contexts.

Although villas seem to have enjoyed a much greater degree of longevity than the majority of Kent's Roman sites, significant building or embellishment in the 4th century is rare. Certainly we can point to elaborate bath houses at Eccles and Bax Farm and late mosaics at Lullingstone, Bax Farm and possibly Otford. More often, however, we see agricultural and light industrial processes being brought within the domestic range, whilst bath houses and hypocausts go out of use; Kent apparently did not share in Roman Britain's "golden age" (Haverfield 1905, 25; Esmonde Cleary 1989, 33).

HER No	Villa name	Principal Source(s)	Notes
TR 36 NW 51	Acol	Isle of Thanet Sites and Monuments Archive 1988, no 116	Aerial photo of possible villa.
TQ 65 SW 4	Allens Farm	Luard 1859; Davies 2009	
TQ 66 NW 15	Ash-Cum-Ridley	Ward 1970	
TQ 75 SW 22	Barming	Beale-Post 1848	
TQ 96 SW 191	Bax Farm	Wilkinson 2012a	
TR 15 SE 326	Bourne Park	Wallace et al. 2014	
TQ 86 NE 18	Boxted	Payne 1893	
TR 26 NE 71	Brooksend	Isle of Thanet Sites and Monuments Archive 1988, nos 68; 300/11	Cropmark and scatter. Partial excavation tentatively identified small building.
TQ 76 SW 13	Burham	Payne 1898	
TQ 84 NW 6	Chart Sutton	J. Newbury's notebook	Transcription kindly supplied by D. Goacher
TQ 66 NE 23	Cobham	Tester 1961	
TQ 57 SE 30	Darenth Court	Payne 1897	Original excavation report
		Fox 1905	Proposed that the west wing was site of fullonica
		Philp 1973	1969 excavations exposing further aisled building and detached bath house.
		Black 1981	Reassessment and discussion of development.
		Philp 1984	Report of 1972 excavations
TQ 96 SE 22 & SE 1055	Deerton St & Hog Brook	Wilkinson 1997	Deerton Street
		Wilkinson 2009a	Hog Brook
TQ 75 NW 6	East Malling	Anon 1957; Wacher 1965	
TQ 75 SW 8	East Farleigh	Smith 1839	Original discovery
		KAS Newsletters 79; 83;86;88;	Current excavations
TQ 76 SW 10	Eccles	Detsicas 1963-1977	Yearly interim reports in *Archaeologia Cantiana*
TQ 65 SW 162	Fairlawn	Wessex Archaeology 2010	
TQ 56 NW 15 & 14	Farningham I & II	Priest and Cumberland 1932	Oliver Crescent bath house
		Philp 2002, Site 34	Bath house
		Meates 1973	TQ 56 NW 15 ; main house
TR 06 SW 41	Faversham	Philp 1968	Winged villa house
		KAFS Newsletter 7	Aisled building
TR 23 NW 11	Folkestone East Wear Bay	Winbolt 1925	Initial excavation
		Philp 1990; 2002, Site 41	Re-excavation & consolidation of Block C (bath house)
		Parfitt 2013	Investigations 2010-2011
TQ 56 NE 4	Franks Hall	Meates et al. 1948	
TQ 76 NE 401, NE 425	Grange Farm	Seddon 2008	
TQ 86 SW 1	Hartlip	Victoria County History of Kent Vol 3 117-8	
TQ 56 NW 7	Lullingstone	Meates 1979	
TQ 75 SE 18	Maidstone II	Roach Smith 1876	

Table 6.13 Principal sources for villa sites (cont. overleaf)

HER No	Villa name	Principal Source(s)	Notes
TR 26 NW 102	Millbank	HER record	Cropmark visible in aerial photo of 1990
TR 36 SW 67	Minster	Perkins 2004	Bath House
		Parfitt 2006	Building 4 (corridor house)
		Parfitt 2007	Buildings 6A & 6B
		Parfitt et al. 2008	Main house (Building 1)
		Parfitt et al. 2009	Enclosure; Buildings 2 & 5
		Moody 2010b	Kiln and post-built structures
TQ 67 SW 38	Northfleet	Steadman 1913	Villa house
		Andrews et al. 2011	HS1 excavations of *pars rustica/fructaria*
TQ 55 NW 3	Otford "Progress"	Pearce 1927; 1930	
TQ 95 NW 23	Rodmersham	Philp and Baxter 1986	
TR 35 NW 91	Sandwich	Parfitt 1980	
TQ 65 SW 20	Sedgebrook	Crockett 1988	
TR 05 NW 181	Sheldwich	HER	Field survey, resistivity and test pits only
TR 35 SE 4	Sholden	Parfitt 1980; 1986	
TQ 76 SW 23 & 454	Snodland	Ocock and Syddell 1967	Partial excavation of main range, bath house and pool
		Maidstone Area Archaeological Group Archive	Main range, bath house, aisled building and earlier strip building (plan in Birbeck 1995)
		Birbeck 1995	Re-excavation of parts of western range
		Dawkes 2009b	Further bath house replaced by aisled building; late cemetery (TQ 76 SW 454)
TQ 57 SW 11	Tenter's Field	Dartford District Archaeological Group 1986, Site 3	
TQ 65 SE 19 & SE 76	Teston	Grover 1873; Rady 1992; Elliot et al. 2013	Excavations on-going
TQ 75 NE 28	The Mount	Kelly 1992; Houliston 1994	
TQ 75 NE 374	Thunham	Lawrence 2006; Booth et al. 2011	
TR 37 SE 9	Tivoli	HER; Trust for Thanet Archaeology website	http://www.thanetarch.co.uk/
TQ 66 SW 49	Trottiscliffe	HER	Field walking and aerial photographic images
TQ 57 SW 12	Wilmington	Dartford District Archaeological Group 1986, Site 2	
TR 25 NW 14	Wingham	Dowker 1882; 1893; Jenkins 1984	

Table 6.13 Principal sources for villa sites (cont.)

Notes

[i] Reece's (1988) term which acknowledges that although 'villa' is a classical concept, it is also a modern label used to cover a wide variety of buildings that might, or might not have been regarded as villas during their lifetimes.

[ii] This thus includes buildings whose superstructures might have been of timber.

[iii] Pearce (1930, 158) noted the presence of three substantial, flint-lined cylindrical holes at the Progress site. The plan shows that these formed an arc and Detsicas (1983, 90) interprets them as evidence of an earlier, round "hut", although the only undisturbed one of the three also contained 4th century pot.

[iv] Paralleled by the excavators only to a 5th century BC building at Crickley Hill, Glos.

[v] There is, however, aerial survey evidence of cognate forms from Gaul (Todd 1992).

[vi] Much of the dating evidence derived from abandonment deposits rather than occupation layers.

[vii] To err on the side of caution, Folkestone, along with those villas estimated to have been constructed around AD 100 or in the late 1st/early 2nd centuries have been considered as early 2nd century foundations.

[viii] The term used by Lawrence (2006) and Booth (2011) to denote the principal Early Roman domestic building at Thurnham.

[ix] It should be noted that while it is widely assumed that *Durovernum Cantiacorum* was the *civitas* capital, this is not certain.

[x] Adminius is identified with the Amminius whose coins were specific to Kent.

[xi] This presupposes that the Claudian invasion took place in Kent, a supposition that has been challenged by, amongst others, Hind (1989) and Bird (2000).

[xii] Figures throughout are based on a figure of 44 villas and six probable villas (these six omitted from table 6.7).

[xiii] The ill-understood villa at Chart Sutton, which is within 1km of the nearest spring, is more directly associated with the Roman road.

[xiv] Construction deposits often lack dating evidence and the buildings themselves (as opposed to surrounding deposits) are likely to be largely free of sediment build up unless undergoing periods of abandonment).

[xv] At Minster, the division into two rooms appears to have been a later modification.

[xvi] The presence of a porticus also implies the possibility of clerestory lighting if the internal rooms were only one storey high.

[xvii] Those at Minster and Lullingstone might be termed 'semi-detached'

[xviii] Information from Maidstone Area Archaeological Group site archive (courtesy of Albert Daniels).

[xix] If the fire were accidental, it was confined; the fire damage may represent deliberate clearance of old structures (Biddulph 2011a, 180)

[xx] At Horton Kirby, the granary was similarly replaced by a timber structure approximately half the size of the original, presumed by then to be abandoned. Unfortunately there was no associated dating evidence.

7 The morphology of non-villa and lesser nucleated settlement

7.1 Introduction

One of the enduring problems of archaeology is the need to impose order on a mass of (often unruly) data in order to tease out patterns and construct narratives, whilst at the same time allowing the disparities and nuances in the data to speak. This is the practical dilemma underpinning theoretical debates on cultural change ('Romanization' versus 'discrepant experience') and identity. We need broad classifications to create a framework of research, but should not let these classifications unduly influence the way in which we analyse the associated data: these may highlight similarities between different classes of site or conversely differences between settlements which are morphologically similar.

Rural settlements in Roman Britain are usually defined as either: villas, non-villa settlements/'native settlements', or small towns (Hingley 1989, 20). This categorisation is not unproblematic and in itself tends to dispose towards normative and hierarchical interpretations (c.f. Taylor 2013, 5). The villa/non-villa divide is complicated by lack of certainty over what the term 'villa' actually means; even if 'cottage' and aisled houses are excluded from the category as Hingley suggests, there is still great diversity amongst the buildings and building complexes that remain, as we have already seen. The same diversity is present in the 'non-villa' category. As long as defined, the 'villa'/'non-villa' divide has some utility as a way of creating broad categories. The 'non-villa' sites considered in this chapter are completely devoid of rectilinear stone-founded structures.

Relatively little is known of Kent's smaller nucleated settlements. The unusual settlement of sunken-featured buildings at Monkton (Hicks 2008) is an exception, although clearly only partly exposed. The Late Iron Age and Early Roman 'village' at East Kent Access Zone 6 will be an important source of information when fully analysed and published. Others, such as Maydensole Farm (Redding 1997), are known primarily from aerial photographic evidence/field survey,[i] whilst there is a large coin assemblage from a settlement at Goodnestone otherwise known from aerial photographic evidence, fieldwalking and limited geophysical survey (Oxford Archaeotechnics Ltd 1997; Reilly 2011). There is little information on the morphology of the published site at Ickham (Bennett et al. 2010).

Despite a number of large scale archaeological projects undertaken in Kent in the last decade or so, understanding of the morphology of Roman-period rural sites is still problematic. There are a number of reasons for this. Many of the larger projects such as HS1 and the East Kent Access have been linear schemes and so have provided only snapshots of much wider activity: incomplete enclosures, small groups of enclosures from what are clearly larger areas of settlement or linear features which on their own make no morphological sense. Truncation of soils through agricultural activity is another problem, seemingly affecting Thanet - where significant areas of settlement have been found - in particular. Despite the large area (90 ha) examined at Thanet Earth, much of the Late Iron Age and Roman period evidence is disjointed through truncation and even here the main area of potential settlement (revealed by cropmarks) was largely outside the excavated area (Rady 2010, Fig.8).

7.2 The morphology of non-villa (non-nucleated) settlements

Although Taylor (2007, 24) found that enclosed settlements were comparatively scarce in most of Kent (his Fig. 4.2 shows them concentrated in the east of the county), Booth (2011, 267) found enclosure to be a consistent feature of all the HS1 main settlements and indeed in this present survey only one of the 27 sites itemised in Table 7.1/Fig. 7.1 appears to be unenclosed. This disparity of opinion is probably caused by the hitherto relatively sparse data for excavated rural sites in Kent combined with the patchy nature of the county's aerial photographic evidence. As we have seen there are apparently a large number of potential enclosures of Iron Age/Roman date in the east of the county where soil conditions are favourable for the formation of cropmarks but where there has been little excavation.

HER no/other identifier	Site	Morphology	Date range of enclosure	Post-enclosure activity
EKA 10A	EKA 10A	Developed	Late Iron Age/Early Roman	
EKA 14	EKA 14	Developed	Late Iron Age - (?mid) Roman	
EKA 20, 20A &29	EKA 20, 20A &29	Developed	?Middle Roman	
EKA 7	EKA 7	Other (Respecting MIA enclosure)	Transitional	
Farningham - Hadlow 12/08	Farningham -Hadlow 12/08	Enclosed	Late Iron Age/Early Roman	
Farningham - Hadlow MT01, Ash 4/01-03	Farningham -Hadlow MT01	Enclosed	Late Iron Age/Early Roman	Coins indicate occupation into 4th century; later rectilinear enclosure
Thanet Earth Plateau 8	Thanet Earth Plateau 8	Developed	1st – 2nd century	
TQ 67 SE 68	Hillside	Developed	1st – 2nd century	
TQ 67 SW 222	Swanscombe	Uncertain; may not be domestic	2nd – 3rd century	
TQ 67 SW 430	South of Station Rd	Uncertain	1st century	
TQ 67 SW 547	Northumberland Bottom WNB 98 (HS1)	Developed	Late Iron Age/Early Roman	
TQ 67 SW 548/SW 464	Pepperhill-Cobham Site D/ West of Wrotham Rd (HS1)	Developed	1st – 3rd century	
TQ 74 NW 100	Broad Forstal	Uncertain	1st – early 3rd century	
TQ 75 NE 374	Thurnham pre-villa	Enclosed	c. 50BC – AD 50-70	Villa
TQ 75 NE 376	Hockers Lane	Enclosed	Middle Iron Age – c. AD 50	
TQ 75 SE 128	Queen Elizabeth Square, Maidstone	Uncertain	Late Iron Age – early 2nd century	
TQ 85 NW 122	Snarkhurst Wood	Enclosed; possibly developed	c. 50 BC – AD 50, replaced in Early/Middle Roman period	
TQ 85 SE 312	Runham's Farm	Enclosed	c. 10 BC - c. 50 AD	Occupied into 4th century
TQ 94 NE 56; NE 267; NE 270; NE 273; NE 266	Beechbrook Wood	Uncertain	Late Iron Age – Middle Roman	
TQ 94 NE 233	Leda Cottages	Enclosed	Late Iron Age – 3rd century	
TQ 94 NW 53	Brett's Sandpit Charing	Developed?	Late iron Age – c. AD 150	Some later 2nd century activity, including burials
TR 03 NE 203	Bower Road	Uncertain	Middle - Late Roman. Earlier activity may be enclosure related or may represent evolving trackways	
TR 06 SW 41	Faversham pre-villa settlement	Enclosed	c. 50BC – AD 50	Villa
TR 23 NW 268	Terlingham III	Developed	c. AD 50-100	
TR 35 NE 3	Dickson's Corner	Unenclosed	c. AD 50 - 225	
TR 36 NE 449	Upton House	Uncertain	Early Roman	Cut by quarry pits; increased settlement evidence from later 3rd century (including building evidence)

Table 7.1 Morphology and chronology of non-villa (non-nucleated) settlements

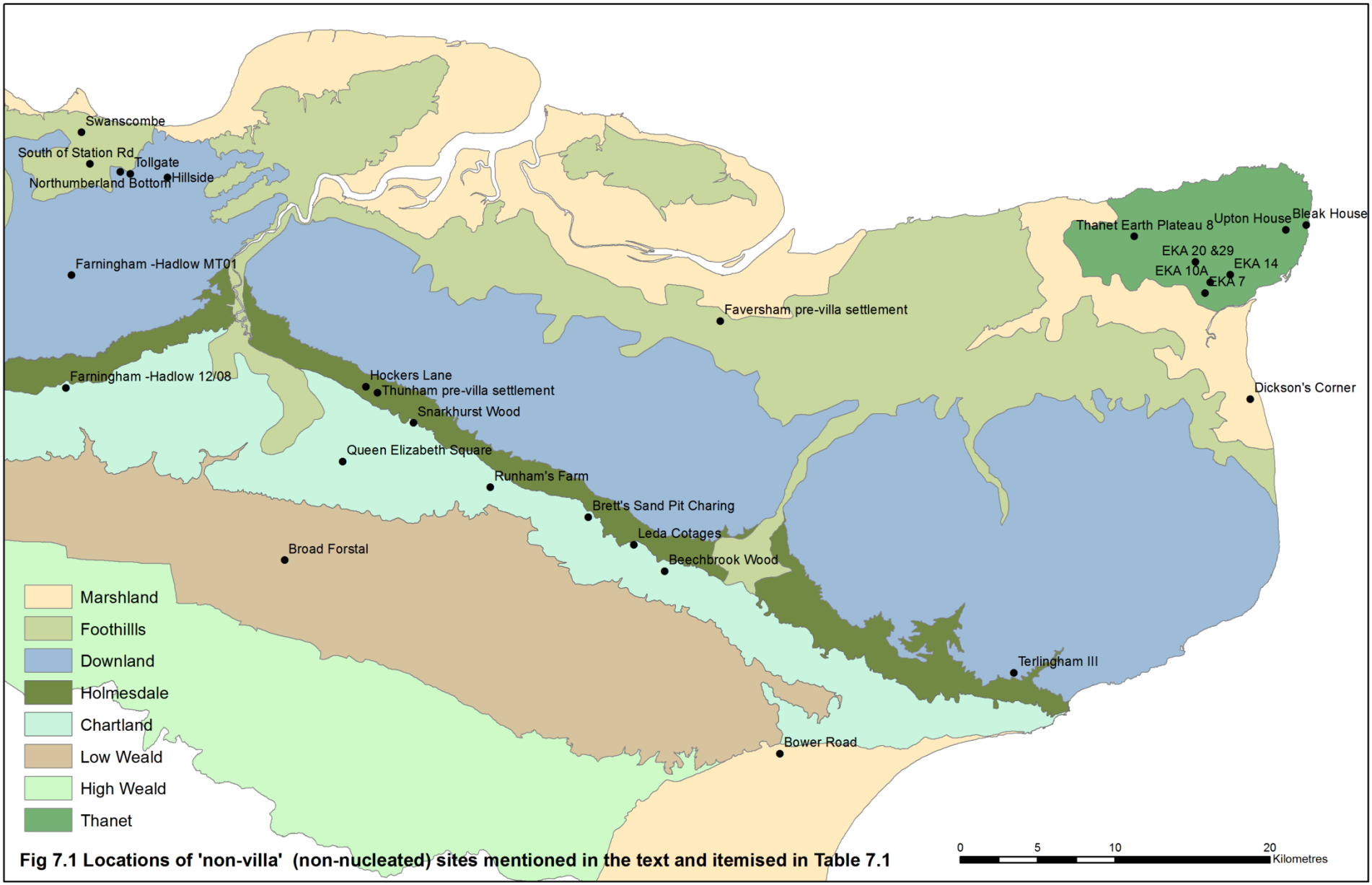


Fig 7.1 Locations of 'non-villa' (non-nucleated) sites mentioned in the text and itemised in Table 7.1

7.2.1 Open/unenclosed settlements

Detecting unenclosed settlements is problematic in the absence of large scale open area excavation; finding such in Kent, where non-masonry buildings commonly leave little or no footprint is particularly challenging. Dickson's Corner, Worth is the only clear example of an unenclosed settlement found in this survey. This was a small coastal settlement, occupied - possibly only seasonally - from c. AD 50 to c. AD 225 and was revealed in the guise of pebbled areas, clay floors and hearths.

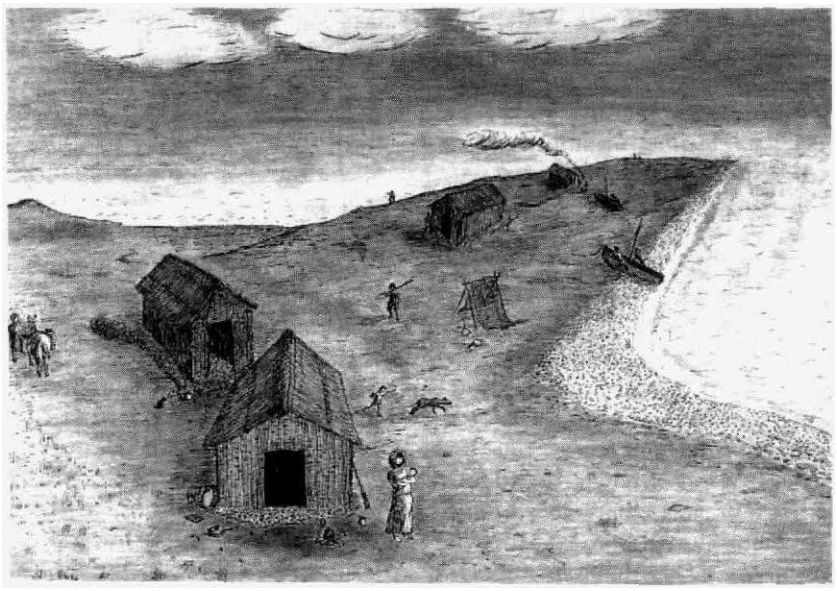


Fig. 7.2 Imaginative reconstruction of unenclosed settlement at Dickson's Corner, c. AD 100. (Illustration: Ben Stocker in Parfitt 2000)

7.2.2 Enclosed settlements

Kent's enclosed settlements are not particularly easy to classify, particularly given the rarity of complete layouts. Booth has recognised two main groupings amongst the HS1 sites, which he has defined as "irregular and evolving" and "sub-rectilinear and rectilinear" (2011, 267). Allen (2013) meanwhile makes a division between:

- Enclosed settlements, where all or the majority of domestic activity is contained within one or two enclosures which are not subdivided to any significant degree

and

- Linear/developed settlements, consisting of a complex of conjoined enclosures, with internal areas often extensively subdivided, multiple areas used for domestic activity and a tendency to incorporate trackways and field systems.

Clearly these two systems of classification overlap and one could perhaps argue that where Booth's categories indicate style, Allen's indicate substance. In practice, given the incomplete nature of most site plans it is not always clear whether a rectilinear settlement belongs in the 'enclosed' or 'linear/developed' categories. Enclosures are not necessarily domestic in nature; it is possible that some of those considered here were not so, but the general lack of evidence for round houses and other timber structures in Kent can make it difficult to distinguish domestic from non-domestic.

7.2.2.i D-shaped enclosures

Some of the simplest enclosed settlements comprise a number of roughly D-shaped and sub-rectangular enclosures generally originating in the Late Iron Age.

Three strikingly similar examples of D-shaped enclosures have been found at Hockers Lane (Lawrence 2006, 17-20) and at both Mitigation Area (MT) 01 and Plot 12/08 on the Farningham to Hadlow Pipeline (Wessex Archaeology 2010) (Fig. 7.3). The Hockers Lane enclosure has Middle Iron Age origins and is unusual in Kent in having survived until around AD 50 when there seems to have been a settlement shift to Thurnham. The other two sites have not been closely dated as yet, but all three had more than one phase of development and are thought to survive into the Transitional/Early Roman period. All are of a similar size, are

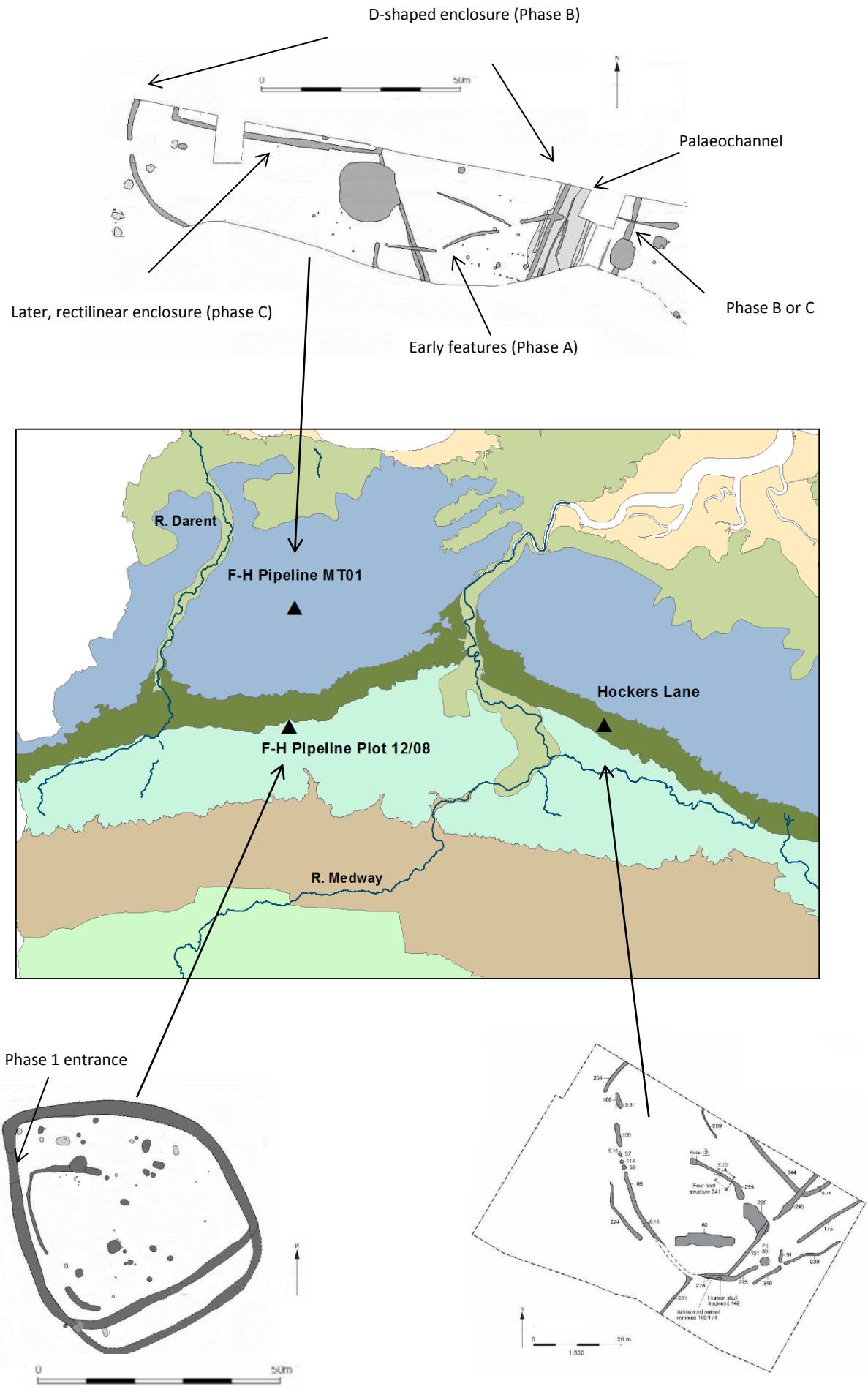


Fig. 7.3 D-shaped enclosures.
(Adapted from Wessex Archaeology 2010, Figs. 2 & 4 and Lawrence 2006,Fig. 7.)

orientated roughly NW-SE, with their straight sides to the south east and at one point seem to have had entrances to the north west, although the Hockers Lane enclosure also had a substantial entrance in its straight side.

At MT 01, the D-shaped enclosure replaced an earlier and less comprehensible set of ditches and was in turn replaced by a rectilinear enclosure. At Hockers Lane, internal divisions relating to the entranceway went out of use and the enclosure was enlarged to the south west. In the latest Iron Age it was replaced by a simple, more rounded, more sharply defined and deeper enclosure ditch. At Plot 12/08, the north western entrance was closed and the enclosure again expanded to the south west. Although phasing has to be confirmed, the plan hints that such an expansion may also have taken place at MT01.

Internal divisions of various phases are apparent at all three sites, suggesting possible zoning of activities within: at Hockers Lane it is suggested that stock may have been kept in one area (Lawrence 2006, 18). Other internal features include pits and post holes although there are no clear signs of buildings; at Plot 12/08 two areas devoid of features could have accommodated round houses (Wessex Archaeology 2010, 26). A possible four-post structure of the type usually identified as a granary was associated with one of the later phases at Hockers Lane.

7.2.2.ii Rectilinear/sub-rectilinear enclosures

Simple rectilinear or sub-rectilinear enclosures (Fig. 7.4) feature at Runhams Farm, Lenham (Philp 1994), Leda Cottages, Westwell (Diez 2006a) and the pre-villa phases at Faversham (Philp 1968) and Thurnham (Lawrence 2006).

The enclosure at Runhams Farm appears to have been occupied for a relatively short time (c. 10 BC-AD 40) and its ditches were filled by AD 50-60. Occupation, however, continued and apparently expanded, with zoned activity areas within the now defunct enclosure. An industrial area was partially defined by the unusual three-sided building discussed in Chapter 6 above and produced evidence for iron working including two shaft furnaces of late 1st-2nd century date (Philp 1994, 42-44).

Less is known of the “Belgic” enclosure at Faversham (Philp 1968, 65-66) as work was confined to a single day’s trial trenching, no internal features were recorded and only the deep enclosure ditches appear to have survived. Pottery recovered dated use of the enclosure area to c. 50 BC-AD 50 although as at Runhams Farm, the ditches themselves seem to have silted up

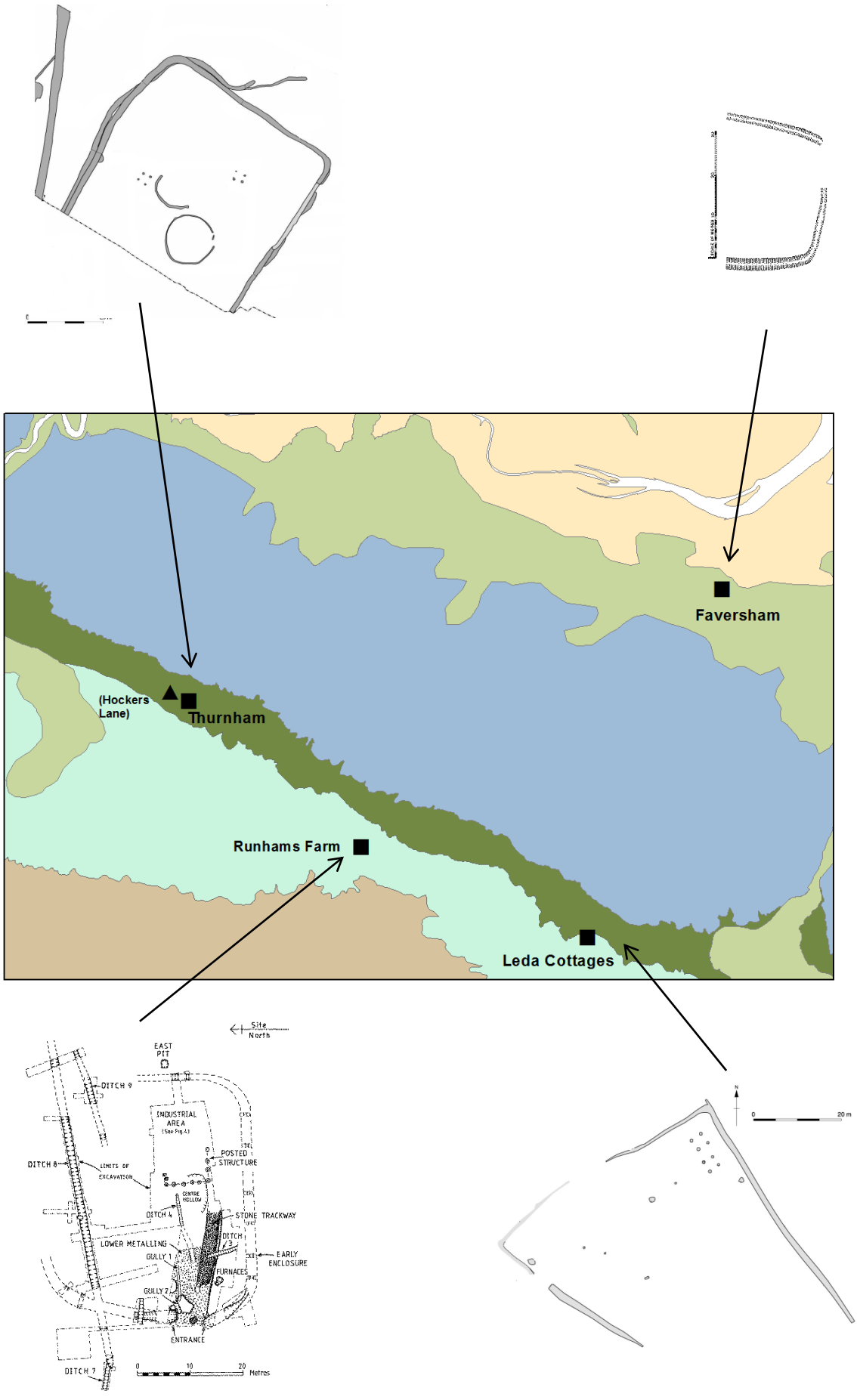


Fig. 7.4 Rectilinear enclosures (adapted from Lawrence 1996, Fig. 3; Philp 1968, Fig. 21; Philp 1994, Fig. 2 and Diez 2006a Fig. 3)

by the latter date. An associated ditch system seems to be slightly later in origin and there appears to be a small gap between the latest pottery recorded (AD 50) and the construction of the first villa, c. AD 75.

The pre-villa enclosure at Thurnham went through two phases, being initiated c. 50 BC, re-cut c. AD 30 and finally filled c. AD 50-70 at the same time as the proto-villa was being constructed. The second phase represented a more rectilinear, broader and deeper re-cut of the first. Unlike the situation at Faversham, the enclosure formed a boundary that continued throughout subsequent periods of occupation, being repeatedly reinstated or extended (Lawrence 2006, 21) as part of the villa compound. Here, unusually, there is evidence of contemporary structures in the form of two probable round house gullies and two four-post structures, dated c. AD 20-60/70; this is the only association of four-post structures with probably contemporary round houses to be found during the HS1 works.

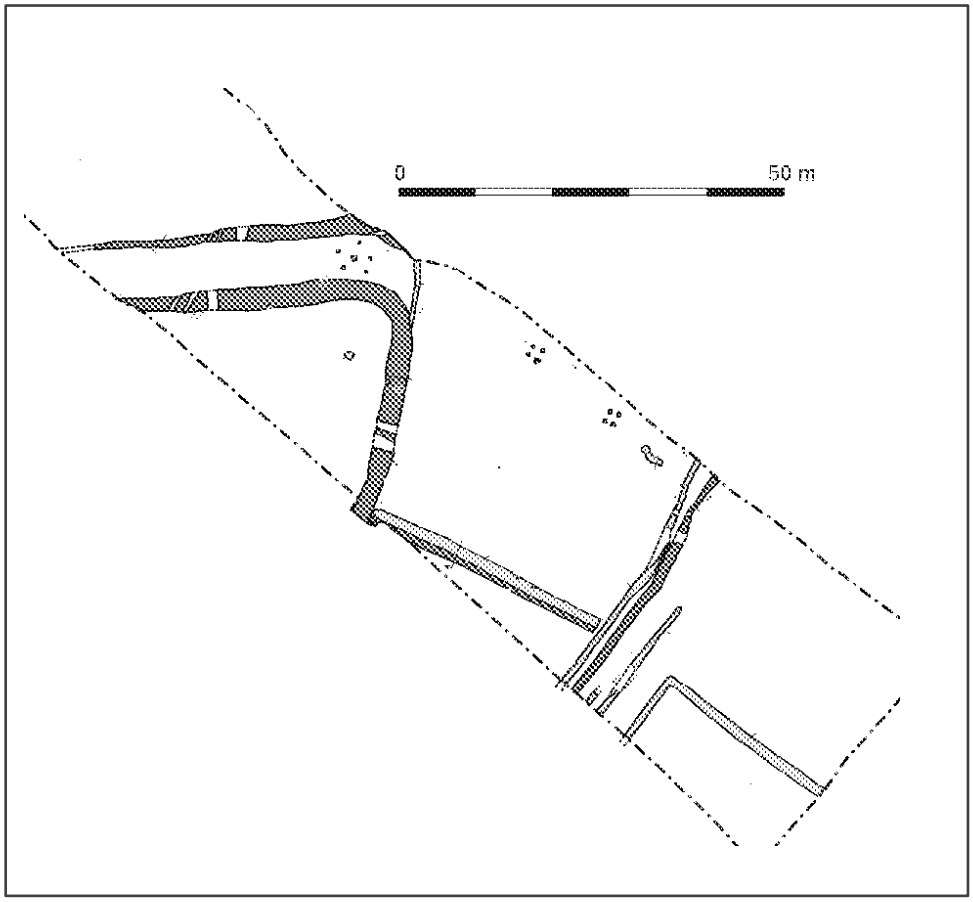
7.2.2.iii Development of enclosure morphology

Enclosure layouts did not always become more rectilinear or indeed more complex over time.

At Leda Cottages, Westwell (Fig. 7.5), a rectilinear enclosure of the Latest Pre-Roman Iron Age (c. 50 BC – AD 43) again contained a pair of four-post structures as well as possible evidence for iron smelting. This was elaborated in the Early Roman period, with the addition of internal divisions and a second enclosure was constructed parallel to the first. The second enclosure's ditches underwent several re-cuts and in their final form appear somewhat less regular than that of the first enclosure.

At Snarkhurst Wood (Diez 2006c; Fig.7.6), a Late Iron Age and Early Roman enclosure (c. 50 BC -AD 50) was only partly exposed but seemed to be of rectilinear character and to be approached by a ditched trackway with what may have been some kind of stock control mechanism. The interior of the enclosure contained features including two four-post structures and an oven. During the Early to Middle Roman period, these ditches were replaced by what appears to have been a simpler and perhaps more curvilinear enclosure, although activity in the interior was similarly characterised by four-post structures and other isolated features. The exposed corner of an adjacent enclosure was, however, distinctly rectilinear.

Fig. 7.5 Leda Cottages (adapted from Diez 2006a, Fig. 7)



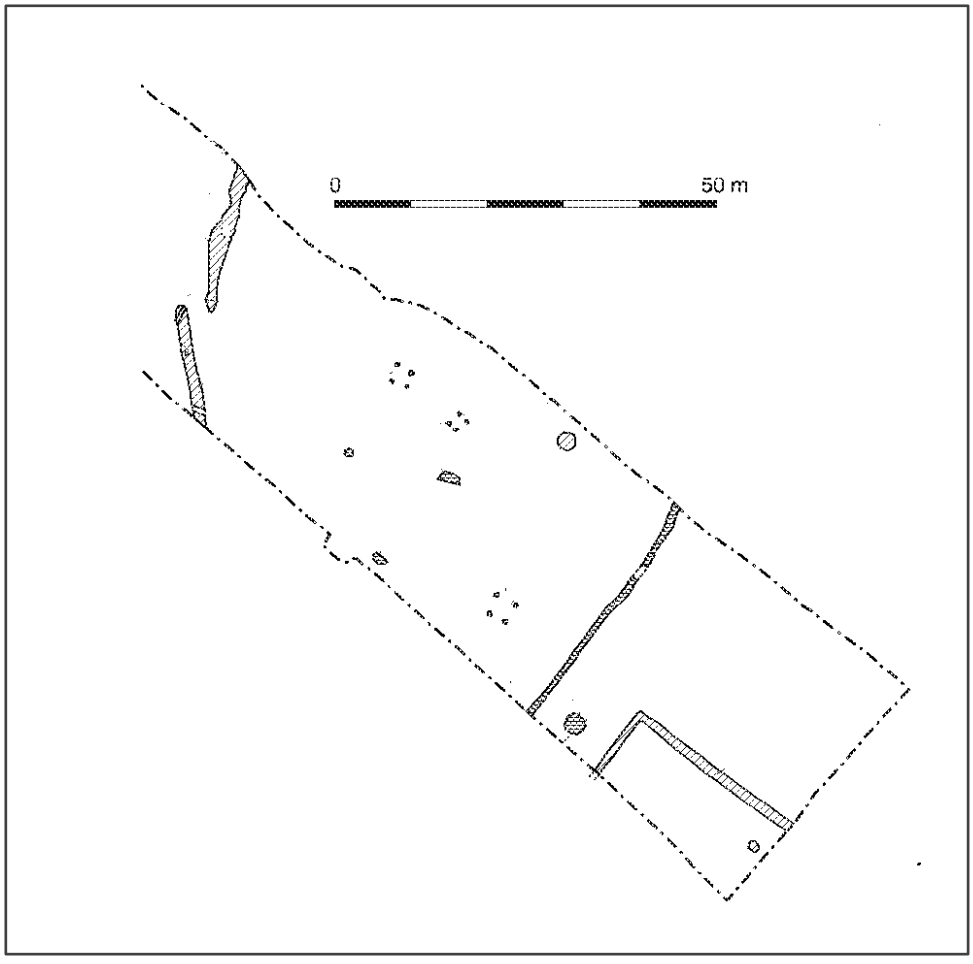


Fig. 7.6 Snarkhurst Wood.

Above: LPRIA (50 BC – AD 30) and Transitional (AD 30-50) phases

Below: Early Roman (AD 50-70) and Early to Middle Roman (AD 70 – 250) (adapted from Diez 2006c, Figs. 5 & 8)

These situations contrast with that at Bower Road, Smeeth (Diez 2006b) where a Late Iron Age and Early Roman irregular layout of ditches (which, however, may not have directly related to settlement [Booth 2011, 270]) was replaced in the Middle Roman period by an increasingly rectilinear layout, including, in the Late Roman period, a rectangular posted building. It has been suggested that Bower Road might represent part of a villa complex (ibid., 264).

7.2.3 Linear/developed settlements

More complex enclosures have been partially revealed at a number of sites. At Northumberland Bottom (East of Station Road) the Transitional period enclosures are of Booth's "irregular and evolving" type, partially at least on account of the terrain (Fig. 7.7). They contrast markedly with the regularity of the nearby Early Roman settlement at Northumberland Bottom (West of Downs Road)/A2 Pepperhill-Cobham Site D (Fig. 7.8). Although only the northern and southern extremities of the site were excavated it was clearly zoned, with evidence for a potentially substantial building in one area, a high status burial in an adjacent one and a separate but attached cemetery enclosure.

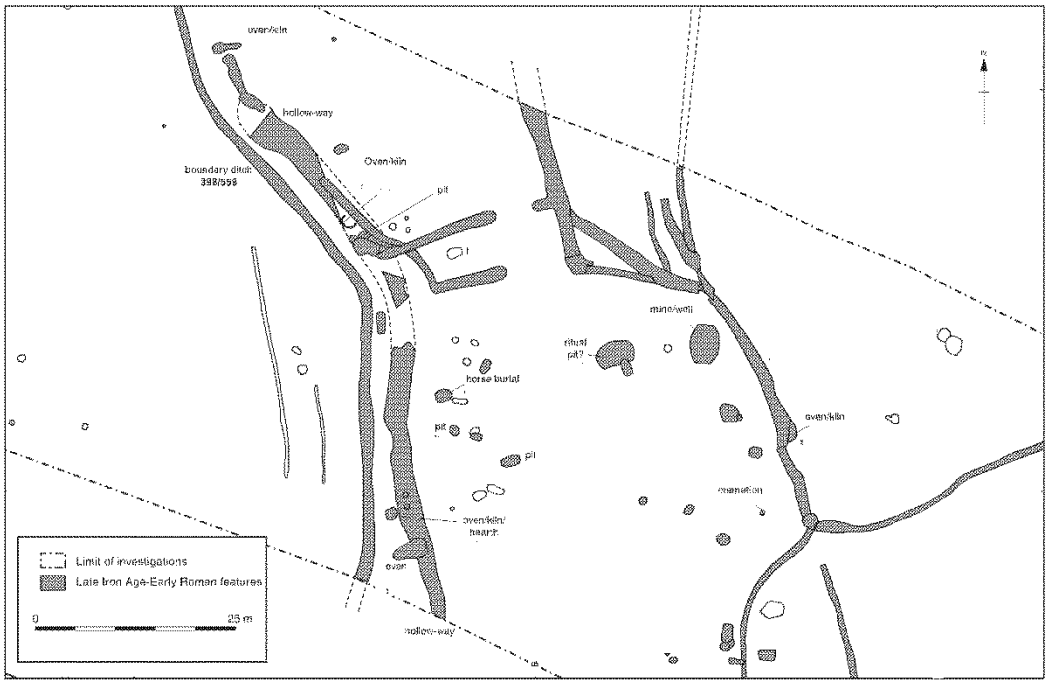


Fig. 7.7 Northumberland Bottom: East of Station Road (adapted from Askew 2006, Fig. 11)

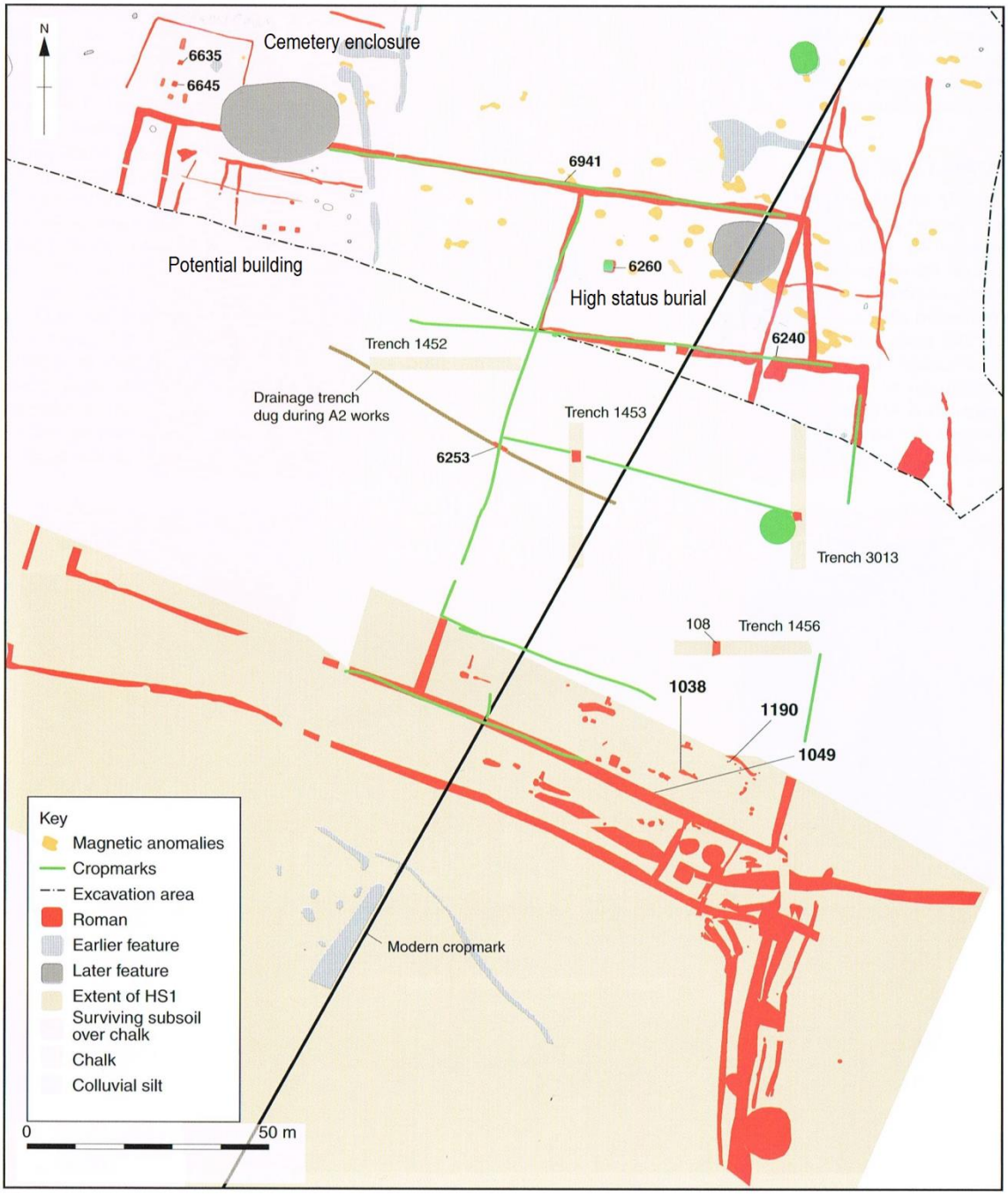


Fig. 7.8 Northumberland Bottom (West of Downs Road)/ A2 Pepperhill-Cobham Site D (adapted from Allen et al. 2012, Fig. 4.2). The southern part of of the site was exposed during HS1 works and the northern during A2 improvements.

Clear evidence of zoning is seen again at the Terlingham III site, Hawkinge (AOC Archaeology Group 2006) where, as seen in Chapter 8 above, a parcel of land underwent a series of perhaps as many as five stages of modification in as little as 50 years. As at the two sites at Northumberland Bottom above, the arrangement includes the provision of trackways, seen by

Allen (2013) as a key element of developed settlements whilst different compounds appear to be characterised by the presence of different groups of structures including a possible shrine in the largest, a concentration of four-post structures in another and more enigmatic posted structures in two others (Fig. 7.9)

Fig. 7.9 Terlingham III, Hawkinge: Early Roman phase plan. NB Phase 3(e) = unknown sub-phase: in other words it is not at present clear to which phases individual structures belong. (Adapted from AOC 2006, Figs. 9,11,13,14)

At Hillside, Gravesend (Philp and Chenery 1998), selective excavation of a large area characterised by cropmarks revealed an evolving developed settlement (Fig. 7.10). The north west area of the site was initially occupied in the 1st century BC, encroaching on a largely silted prehistoric ring ditch. Enclosure activity commenced in the earlier 1st century AD; further extensive development occurred in the middle of that century. At this point the site expanded to the south, with a ditched droveway separating northern and southern areas. To the north were constructed a double-ditched enclosure containing several posted features and a further rectangular enclosure. To the south a third enclosure, surrounded by fields, contained pits, post-holes, a chalk quarry and a 6-post structure (later rebuilt with four-posts). It seems likely that this arrangement represented a small nucleated settlement resulting from common ancestry and divided inheritance as discussed by Hingley (1989, 97). The settlement appears to have been abandoned by the early 3rd century AD.

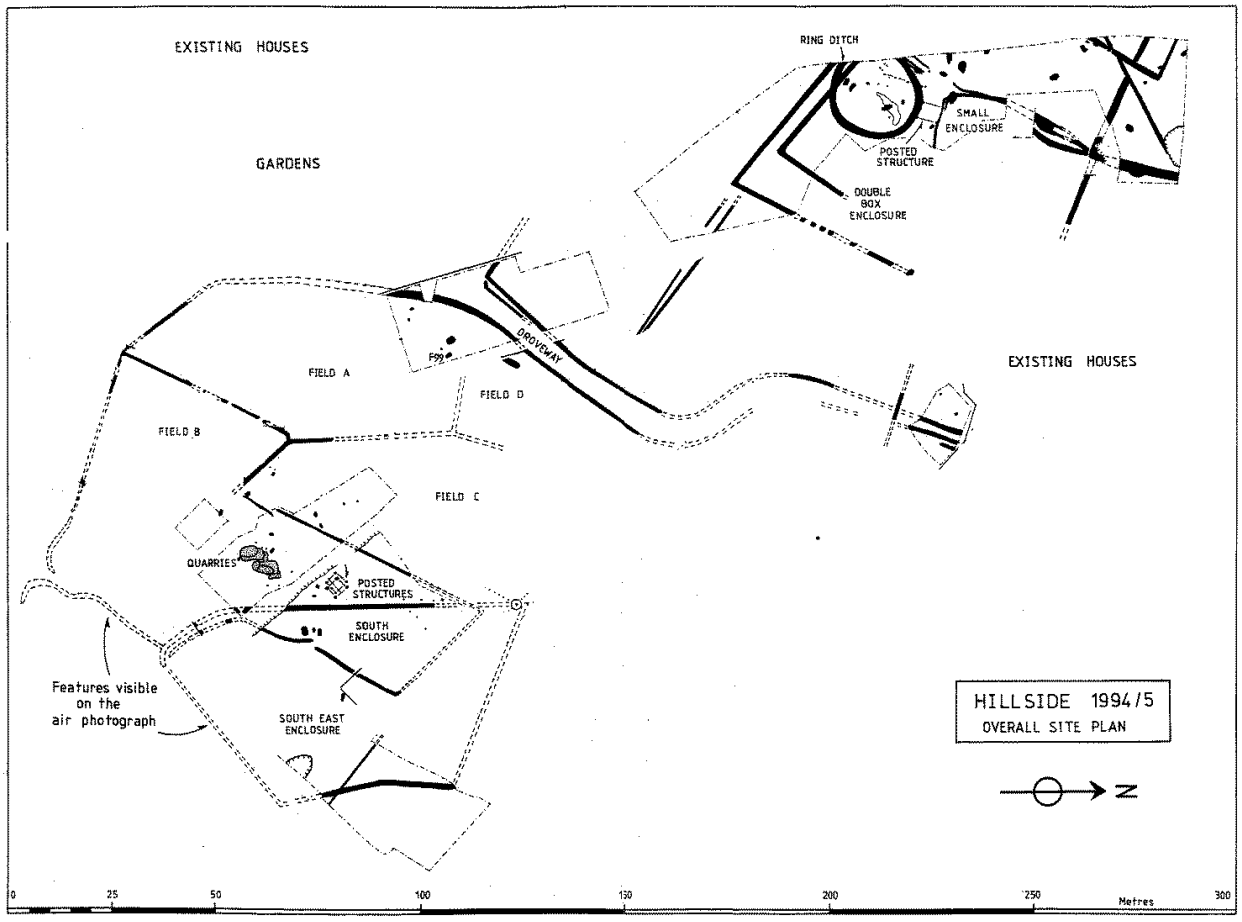


Fig. 7.10 Hillside, Gravesend: all phases (adapted from Philp and Chenery 1998, Fig. 6)

Multiple enclosures exist too at Bretts Sandpit, Charing (Philp 1997) although these are as yet harder to tie into a narrative. Further possible developed enclosure systems have been partially exposed at Broad Forstal (Network Archaeology 2001) and in Zones 10 and 20/29 of the East Kent Access scheme. The latter two been suggested to form parts of a 'ladder' settlements and both are associated with droveways/trackways (Oxford Archaeology 2011, 97-99; 145-148). The same may be the case at Thanet Earth Zone 8 where excavation clipped just a small area of trackside enclosure activity revealed more extensively by cropmark evidence (Rady 2010, Fig. 8.)

7.3 The morphology of lesser nucleated settlements

Kent has a number of known/suspected lesser nucleated settlements or local centres (Fig. 7.11). Again we are confronted by problems of terminology and classification and indeed the overall areas and layouts are known for none of these. Westhawk Farm and Springhead have urban characteristics and tend to be viewed as small towns. The extents of the settlements at Westbere (Rady and Ward 2000), Brenley Corner (Jenkins 1972; 1973) and the presumed settlement at Syndale (thought to be the site of Durolevum) are unknown, but all are on major roads. Syndale and Westbere are associated with extensive cemeteries, as is Dartford, another probable local centre, evidenced by piecemeal discoveries within the town. It is possible that all these indeed were of the scale of small towns. At Ickham (Bennett et al. 2010), an industrial settlement with a series of at least four watermills and evidence of other craft activates dated from the 3rd to 5th centuries was poorly preserved and excavated under less than ideal conditions prior to quarrying. The settlement at Westbere might potentially be the Roman-period equivalent of the medieval port of Fordwich, possibly a more convenient route for the transhipment of goods from Richborough to Canterbury than overland via Margary's Route 10.

A settlement has been suggested at Benenden on the basis of location and an accruement of finds (Aldridge 2005b). Another possible candidate is Otford, where the North Downs Way crosses the Darent and there is a concentration of evidence dating to the Roman period including a large cemetery (Ward 1990). An extensive area of settlement has been identified at Goodnestone from aerial photographs, metal-detecting finds and an extensive surface spread of material culture (Reilly 2011). It is not possible to say anything meaningful about its morphology from the available images; a limited geophysical survey (Oxford Archaeotechnics 1997) revealed a ditched trackway, enclosures, pits and possible sunken-featured structures,

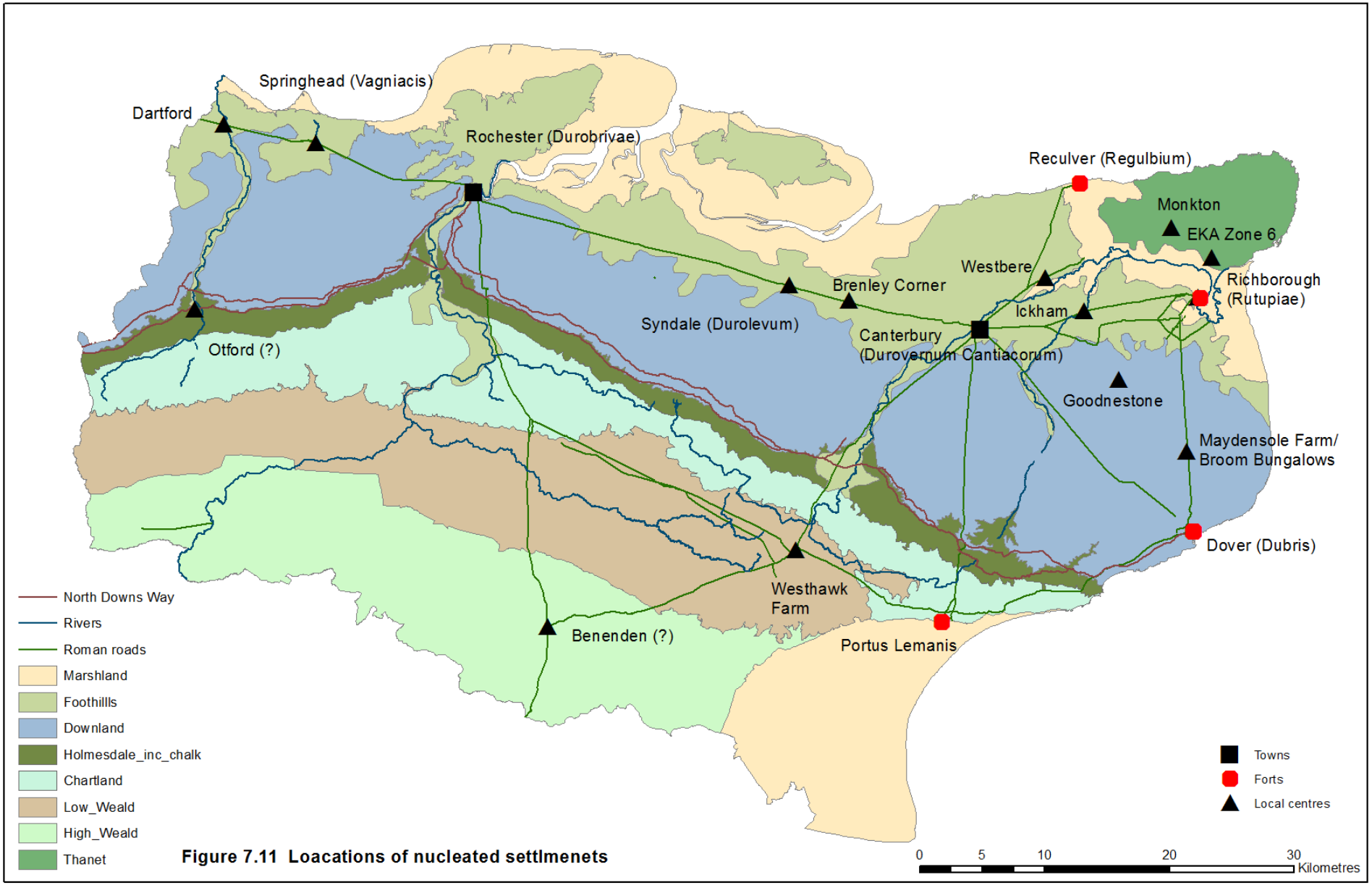


Figure 7.11 Loacations of nucleated settlmenets

however. Meanwhile, partial plans are available for a small number of smaller nucleated settlements.

Zone 6 of the East Kent Access Scheme (Oxford Wessex Archaeology 2011, 42-81) revealed part of a landscape that (unusually for Kent) appears to have been in continuous use since at least the Early Iron Age and where the Late Iron Age and Roman settlement broadly followed an organic layout with Early Iron Age origins.

By the Late Iron Age (Phase 4b; Fig. 7.12a) the excavated area seems to have been intensively occupied with a series of enclosures and related roundhouses. The area also incorporated a droveway and an area possibly used for stock. Towards the end of the phase a substantial ditch (also evidenced on other parts of the scheme and in previous excavations (Andrews et al. 2009) was constructed across the north of the site and would have enclosed a large area at the neck of the Ebbsfleet peninsula. It has been tentatively linked to the Caesarean invasions of 55 and 54 BC and seems to have remained a feature throughout the Early Roman period.

There seems to have been a reduction in the intensity of occupation in Phase 5a (Early Roman; Fig. 7.12b) and no roundhouses are ascribed to this period. In Early Roman Phase 5b (Fig. 7.12c) nine enclosures were established flanking two linked trackways. Trackway II had its origins in Phase 4, whilst Trackway I followed an alignment that originated in the Early Iron Age. There is no evidence for roundhouses in this phase; nevertheless, there are at least two sunken-featured buildings, one or two four-post structures and working hollows. Several of the enclosures include wells.

Roundhouses are generally uncommon finds in Kent and this is reflected here, in sites of all categories, nucleated or otherwise. Although truncation may sometimes (perhaps here) be the cause, it seems likely that there was a regional tradition of construction, perhaps involving pad-stones or other methods of building that did not involve earth-fast posts. Where found, eavesdrip gullies often seem rather ephemeral and again; this may perhaps indicate that in other places, they were built in such a way as not even to leave this sign of their presence. The earlier evidence from Zone 6 does in fact hint at a change in building techniques during the Iron Age, from Phase 3, where roundhouses were represented by postholes to Phase 4, where they are represented by ring-gullies (Oxford Wessex Archaeology 2011, 56).

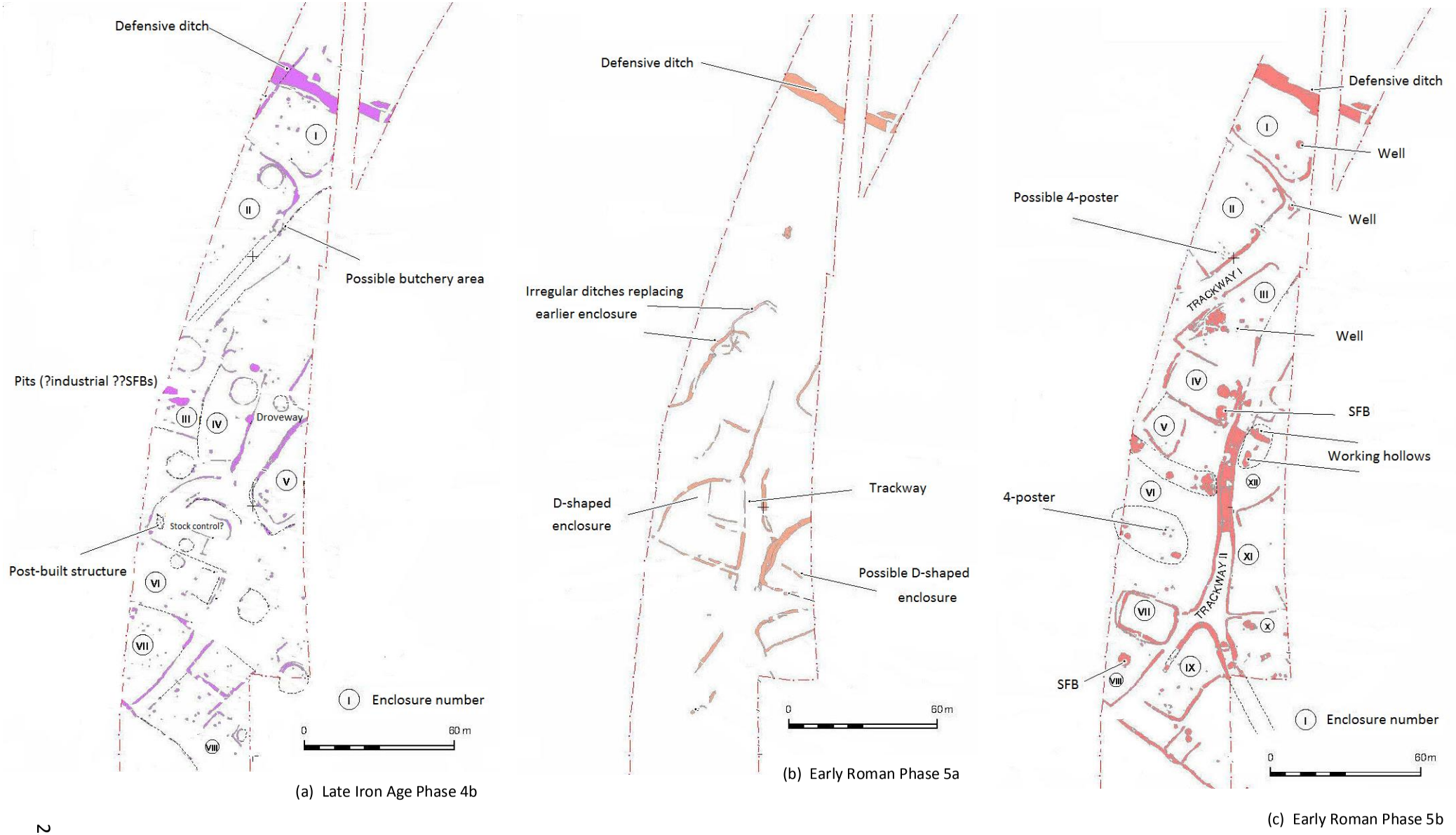


Fig. 7.12 East Kent Access Zone 6. Development of settlement. (Late Iron Age – Early Roman) (adapted from Oxford Wessex Archaeology 2011, Figs. 12-14

At Maydensole Farm (Letterbox Field; Redding 1997; Cross and Redding 2000), settlement layout is known from aerial photographic evidence and geophysical survey (Fig. 7.13). Here the settlement lies alongside the Dover-Richborough road in the midst of downland. Despite lying next to the N-S Roman road, its broadly rectilinear enclosures lie perpendicular to a central NW-SE trackway and thus follow the grain of the land and, indeed, of the extant field system. As at East Kent Access Zone 6, the central trackway splits, with a spur road leading to the south west, possibly another zone of settlement. A Google Earth image of 2007 shows that the area of settlement extends to the north beyond Letterbox Field itself and approximately 1km to the north west a further extensive area of trackside enclosure (of 'ladder settlement' type) is clearly visible adjacent to Broom Bungalows (Fig. 7.14).

Fig. 7.13 Interpretation of NMR aerial photograph of Letterbox Field, Maydensole Farm (adapted from Redding 1997, Fig. 3)

Fig. 7.14 Google Earth image of trackside enclosures adjacent to Broom Bungalows, East Studdal © 2014 Infoterra Ltd & Bluesky

These sites are not yet formally dated, but field walking at Maydensole Farm (Redding 1997) has apparently produced 'Belgic' type pottery, whilst both sites have produced coin assemblage which peak strongly (higher than the British Mean; see Chapter 11) in the radiate period. Ostensibly the aerial photographic evidence shows little evidence of features overlapping suggesting that the sites developed organically without radical changes in morphology.

A settlement partially uncovered at Monkton (Hicks 2008) had its *floruit* in the mid-2nd to early 3rd centuries (Fig. 7.15). It was orientated on a hollow-way with prehistoric origins and characterised by mostly sub-rectilinear sunken-featured structures. In the western part of the site, two rectilinear enclosures lay parallel to the trackway, but these are not convincingly contemporaneous with the sunken-featured structures: indeed the enclosures to the east cut various structures and thus clearly belong to a later phase.

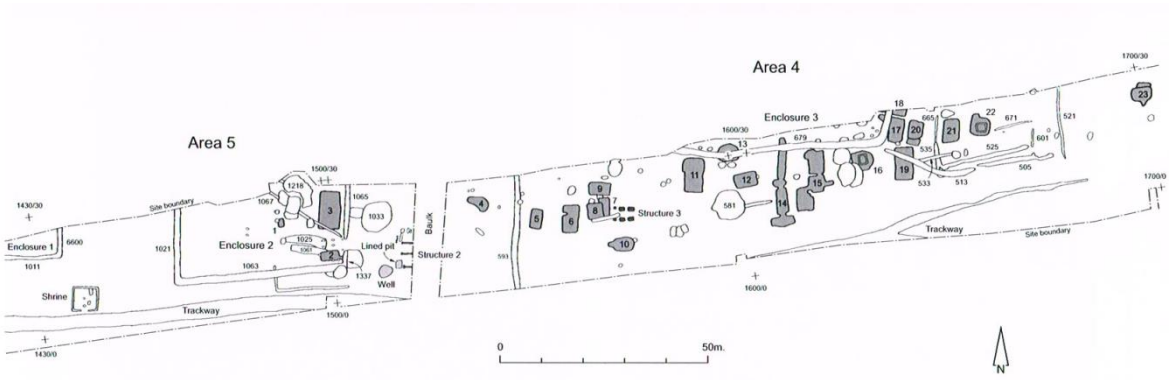


Fig. 7.15 Settlement at Monkton, Thanet (Hicks 2008, Fig. 2/2)

One major boundary was located, dividing the site perpendicularly to the trackway. The highest concentration of sunken-featured structures occurred in the eastern section; a structure interpreted as a shrine, a lined pit and a well lay in the western section. There is no evidence for trackways within the limited excavated area, but the sunken-featured structures, although of varying shapes and sizes, all appear to be orientated more or less parallel or perpendicular to the hollow-way. Although sunken-featured structures have been increasingly recognised in Kent, this concentration is unusual, as is the layout of the site, in which the individual plots so evident at the sites discussed above seem to be absent.

The extra-mural settlement at Richborough may be considered as belonging to a different category, being associated with a military installation. Two areas of settlement have been revealed through aerial and geophysical survey (Small 2002), only one of which is aligned with the fort: it is possible that the other represents a pre-existing settlement although there is no associated dating evidence as yet. Although Small suggests there is evidence that Richborough island was in use as a port/harbour during the 1st century BC, Cunliffe (1968, 232) notes that although no trace of 'Belgic' occupation had been found during the Society of Antiquaries excavations of the 1920s-30s, there were traces of an earlier Iron Age settlement which had been abandoned by c. 100 BC. Nevertheless, Millett and Wilmott (2003, 186) suggest that Richborough may already have been developing as a port before the Claudian invasion. Possibly evidence, such as that recently found at Folkestone (Parfitt 2012; 2013) remains to be discovered or, indeed has been lost to coastal erosion. It certainly developed into a settlement with clear symbolic significance, as witnessed by the erection of the quadrifons arch, its prime placement in the Antonine Itinerary and the poetic use of Rutupinus as a metaphor for

Britannia (ibid.). The settlement, set in such a significant location and with both amphitheatre and two Romano-Celtic temples, may also have had religious significance (ibid.).

The surveys reveal a dense arrangement of rectilinear enclosures and possible building footprints and some degree of overlap between the differently aligned areas suggesting a reorganisation of the use of space associated with the presence of the fort (Fig. 7.16). It is a site that certainly has much further potential for study, not least in the question of how it relates to Canterbury, whose vibrancy was perhaps on the wane in the latest Iron Age (Millett 2007, 141).

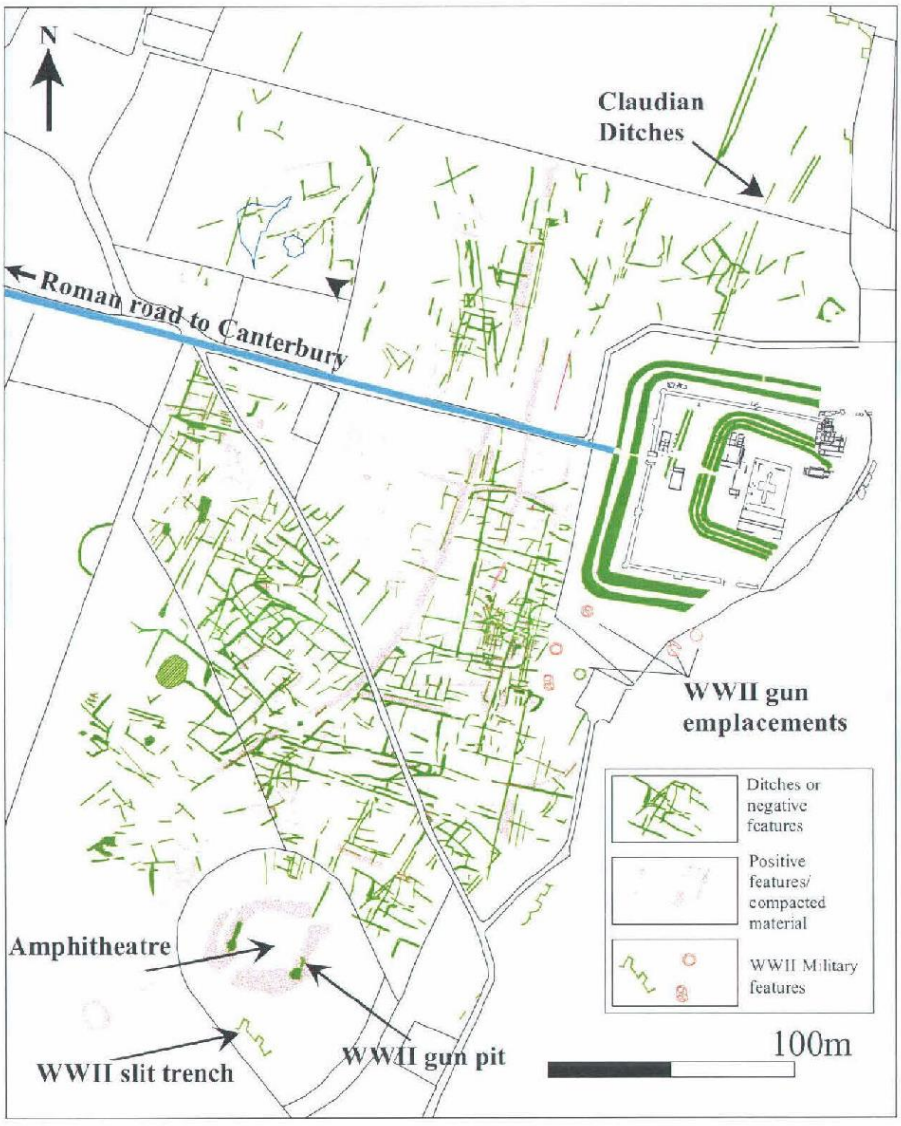


Fig. 7.16 Extra mural settlement at Richborough (taken from Small 2002, Fig. 3)

7.4 Discussion

The non-villa open/enclosed settlements described above are predominantly of Late Iron Age/Transitional/Early Roman date (Table 7.1) with only Hockers Lane having origins in the Middle Iron Age and few enclosures persisting into the Middle Roman Period despite the continuation of activity at a number of locations. Although occupation at Bower Road extends into the Late Roman Period, it is not clear whether the earlier features relate directly to occupation or whether they represent evolving trackways (Booth 2011, 270). In a relatively small sample this may be due to accident of discovery, but the sites fit into the general pattern already observed (Ch. 5) of a proliferation of new sites in the Late Iron Age - Early Roman periods. This again chimes with the Roman Rural Settlement Project preliminary finding that most farming sites in the South East were established in the 1st century AD (Allen 2013).

This survey appears to have produced a relatively high proportion of developed settlements. The Roman Rural Settlement Project has found that of 450 farm sites in the south-east classified by settlement form, 28% were enclosed and just 14% were of linear/developed form (4% being open or unenclosed). In this small sample, however, there appear to be more equal numbers of enclosed (eight or nine) and developed (eight to ten) settlements, with just one known open settlement and a further eight as yet unclassified. Given the small number of sites under consideration, it is possible that this represents selection/excavation bias. The developed settlements are concentrated on Thanet and in the north west of the county and this may be telling us more about the degree of organisation of land that was going on in these particular areas than about trends in Kent more generally. There is also a degree of subjectivity about classifying the morphology of settlements, particularly given the incomplete nature of so many plans; this may have contributed to the anomaly.

The examples considered nevertheless make it clear that there was considerable variation in the morphology of non-villa settlements, both in terms of complexity and of degree of rectilinearity and that there was no single trajectory in terms of increasing elaboration or regularity of form; indeed in some cases quite the reverse. Generally speaking, the simpler enclosures are more likely to have Late Iron Age origins and go out of use in the 1st century AD than the linear/developed enclosures, some of which have 1st century AD origins and last into the 2nd century or beyond.

Interestingly, however, it is the three simplest, sub-rectangular enclosures which go on to be replaced by significant post-enclosure activity. These are at Thurnham and Faversham, where

the enclosed settlements are replaced by villas and at Runhams Farm which developed into a small scale iron working site and where activity on some level persisted into the 4th century. Philp (1994) likens the enclosures at Runhams Farm and Faversham to those at Farningham Hill (although this was pentagonal) and Keston: the latter also became the site of a villa. Whether this is merely coincidence is at present a matter for speculation. It is tempting to see D-shaped enclosures as looking back to more traditional forms of settlement and the sub-rectangular as more 'progressive' but this is probably to read too much into the situation.

Amongst the lesser nucleated sites, there is more chronological variation. Ceramic data are not yet available for East Kent Access Zone 6. It has a different coin-loss pattern from those nucleated sites which last into the Late Roman period, however, with relatively strong indications of 1st century coin-use and very low proportions of radiates (see Chapter 11). The settlement described above appears to have had unusually early Iron Age origins and to have lasted into the 2nd century before the area underwent some radical reorganisation (Oxford Wessex Archaeology 2011, 78). Its morphology is organic and characterised by individual enclosures laid out with respect to curving trackways.

There is no evidence for such early origins at Maydensole Farm, but there is as yet little excavation data for the site. Here, as also at Broom Bungalows, coin evidence indicates that the settlement flourished into the 4th century. Maydensole Farm seems ostensibly to be similar to Early Roman Phase 5b at East Kent Access Zone 6. The fact that it appears to be aligned on its own internal trackways (which follow the lie of the land) rather than on the adjacent Roman road (which cuts across it) suggests that it predates the road. The layout of the Broom Bungalows is perhaps less complete, but gives more the impression of a classic 'ladder settlement'.

At Monkton, evidence suggests activity stretching from the Iron Age into the 4th century. Here, however, the settlement characterised by sunken-featured structures aligned on the hollow-way seems to date to the mid-2nd to early 3rd centuries. This appears to have been superseded by a new arrangement of enclosures. If these were associated with later occupation they do not seem to have produced much in the way of material culture and the paucity of coinage from the site contrasts with finds from sites such as Maydensole Farm, Broom Bungalows and Goodnestone. The site is thus unique in chronology, layout and building morphology.

This small sample of lesser nucleated settlements form an eclectic group, which are possibly even less well understood than the smaller, non-villa settlements and all would merit further investigation/analysis of data. It is unfortunate that as yet so little is known of the partially

exposed sites at Westbere and Brenley Corner and that limited fieldwork at Maydensole Farm remains largely unpublished. The publication of the East Kent Access scheme will be of great importance in this regard, but it is clear that Zone 6 is not a 'typical' Kentish lesser nucleated settlement, if, indeed, such a category exists. The variation apparent between the settlements with their different landscape settings, morphologies and site assemblages suggests that they developed in response to specific localised needs rather than as a uniform response to general structural (administrative or economic) factors.

Note

[i] Although some excavation has been undertaken, only brief details have so far been published (Cross and Redding 2000).

8 Evidence for Agriculture and subsistence

8.1 Introduction

The importance of agriculture to pre-industrial societies is unquestionable and it is commonly viewed as the backbone of the Roman economy. The mass of the population are frequently depicted as living at or near subsistence level (e.g. Duncan-Jones 1974, 1; Garnsey and Saller 1987, 43), whilst land was the only respectable source of income for the upper classes. Clearly it was not the only source of income or occupation for the rural population as we have evidence for other industries such as iron-founding and pottery and salt production; there must also have been an extensive Ragstone extraction industry. Nevertheless, the mass of the 80-90% (Mattingly 2006, 356; Millett 1990a, 185) of the population who lived in the countryside must have been engaged one way or another in farming.

Reconstructing the agricultural economy is difficult; archaeology cannot do this on its own and literary sources are generally of limited relevance (Greene 1986, 67). It is clear, however, that even in the Iron Age, not all farmers were operating at subsistence level as sufficient in the way of surpluses was being created to enable the export of corn, cattle and hides as related by Strabo (*Geography* IV. 5. 2. 143) and corroborated by finds of imported luxury goods such as wine amphorae and metalwork (Fulford 2004, 313).

As Fowler (2002, 34) points out, it is only recently that there has been any degree of knowledge about the history of farming as opposed to the history of the knowledge of *how to* farm. Although numerous books and treatises on agriculture existed in the early Roman period, it is not proposed to reference these here as it is unclear whether these would either have reached or been of use to farmers in the Romano-British countryside.

Archaeological evidence for agriculture is found in several forms:

1. Features, particularly land divisions (field systems and agricultural enclosures)
2. Environmental evidence for crops and livestock
3. Structural evidence for agricultural buildings and for activities such as crop-processing/storage
4. Artefactual evidence (tools, quernstones, etc.).

Aside from quern- and millstones, the artefactual record for agricultural implements in Kent is not particularly strong: very few items were found during the HS1 works for example, with the largest assemblages (Thurnham and Northfleet Villas, Springhead) only producing handfuls of items. The largest assemblage (16 items of somewhat restricted range[i]) derives from the settlement at Monkton (Riddler 2008b).

These different forms of evidence will be used in combination to inform a thematic discussion of agricultural practices in Kent during the Roman period.

8.2 Field systems

Field systems are a particularly problematic form of evidence as *systems* are best seen over a large area: whilst these may be visible on aerial photos, they are rarely dated by fieldwork. Contrariwise, excavation tends only to expose small parts of larger systems; linear schemes in particular have a tendency to produce evidence which hints at the existence of field systems but expose too little to reach meaningful conclusions about the organisation of the landscape. Many excavations have produced sections of ditches which may have been parts of field systems. The situation contrasts with that which pertains, for instance, in the Scheldt Valley where large-scale excavations have allowed the exploration of extensive tracts of agricultural landscape (Clotuche 2009). Consequently this does not attempt to be an exhaustive examination of Kent's Roman field systems, but makes use of a number of sites subject to recent excavation and resulting in plans of reasonable tracts of field system.

The majority of these systems are dated to the Transitional/Early Roman periods with a smaller number having firmer origins in the Late Iron Age (Table 8.1). Only two show evidence of extending into the Mid Roman period. Area B of the Grain-Shorne Pipeline is exceptional in producing evidence of a system which does not seem to have been in existence until the Late Roman Period. It is possible, however, that the field systems survived for longer than the dating evidence from their ditches suggests, particularly if boundaries were hedged. Pryor (1998, 97) suggests that this is the case and that the primary function of field ditches was to provide material to cover the hardwood plant cuttings used. The ditch would thus be important in the early life of the system, but once the hedge was established, it could be allowed to silt up. Any ditches maintained in active

use as boundary features would almost certainly periodically be cleared of deposits, meaning that any dating material is likely to relate to their abandonment. The dating of field systems, particularly when isolated from evidence of occupation in the vicinity, might be more accurately achieved, therefore, through a combination of dating evidence from cut features and the collection of surface material which might represent manuring spreads and /or continuing land use. At Park Farm, for instance, coins gathered during a metal detector survey include one of Postumus (AD 259-68) as well as other later issues despite no features being dated later than the 1st century (Cooke 2012).

HER No	Name	Map Key (Maps 8.1-3)	LIA	Transitional	Early Roman	Mid Roman	Late Roman
TQ 57 SE 1057 & 1058	A2/A282/M25 Improvement Scheme, (areas A and P)	1		✓			
TQ 57 SE 209	Waterstone Park	2			✓		
TQ 57 SE 292	Waterstone Park	3		✓			
TQ 67 SE 327	Tollgate, Henhurst Rd, Cobham (HS1)	4		✓	✓	✓	
TQ 67 SW 123	West of Tollgate (A2)	5			✓		
TQ 67 SW 549	Northumberland Bottom	6		✓	✓		
TQ 87 NW 90 & 101	Grain-Shorne Pipeline area B	7					✓
TQ 94 SE 164	Brisley Farm	8			✓		
TR 03 NE 205	East of Station Road	9	✓		✓		
TR 03 NE 62	Little Stock	10	✓				
TR 03 NW 90	Park Farm (East and South-East)	11	✓	✓			
TR 04 NW 188	Eureka Park, Ashford	12	✓	✓	Other features dated “Roman “		
TR 06 SW 41	Faversham Villa	13		"Belgic"	✓		
TR 13 NE 217	Saltwood	14	Not closely dated, but associated trackway lasts into 2nd/early 3rd century				
TR 13 NW 153	Stop 24, Junction 11, M20	15			✓	✓	
TR 23 NW 268	Terlingham III, Hawkinge	16	✓		✓		
TR 26 NW 34	Highstead	17			✓		
TR 36 NE 453	Coldswood Road	18		✓			
TR 36 NE 575	New Haine Road, Ramsgate	19			✓		
TR 36 NE 581	Manston Road, Ramsgate	20		✓			

Table 8.1 Field systems referenced in the text: dating

Any mapping of field systems has to be tentative, for the reasons outlined above. The evidence gathered for this chapter shows a widespread distribution of field systems across Kent to the north of the Downs with another at the eastern end of the Greensand Belt (Fig. 8.1). Information from the National Mapping Programme suggests that further, unexcavated, systems may exist in the east of the county, including the dipslope of the Downs. The distribution is predictable, for the most part avoiding clay soils (Wealden Clay, London Clay and Clay-with-Flints) and areas likely to have been densely wooded. The western parts of the Chartland, where soils are acidic and surface vegetation tends towards scrub also appear at present to be devoid of evidence. Park Farm, situated actually on the Wealden Clay is, in common with other sites recently discovered in the Ashford region of the Weald, on the margins of the alluvial soils of the East Stour floodplain. It has been suggested that these alluvial soils were in arable use during the Iron Age, whilst the heavier clay soils provided pasture and woodland (Wessex Archaeology 2004b, 4); Park Farm East provides tentative evidence for a possible change of use from pastoral to arable during the 1st century AD (ibid., 12).

As with villas, field systems show a tendency to be situated near the junctions of different bedrocks (Fig. 8.2), suggesting the agricultural exploitation of different types of land; at present, however, little is known about field systems associated with Kent's villas.[ii] There appears to be some correlation with Brown Earth Soils of North Kent, although this is not particularly strong. Both lighter and heavier soils were being exploited (Fig. 8.3).

Fowler (2002, 137) has identified five main categories of 1st millennium fields and field systems: those which represent:

1. a continuing prehistoric system
2. an adaptation of a prehistoric field system
3. a new field land created on top of a relict system
4. a new field system created on land with no remains of earlier cultivation
5. a new field system imposed as an act of reorganisation on a working landscape.

Examples of all of these can be found amongst Kent's Romano-British field systems, although as continuity of any kind of site from before the Late Pre Roman Iron Age is extremely uncommon and we have already established that there is no clear cut-off between the LPRIA and Roman periods, examples of the first two categories are rare. Little

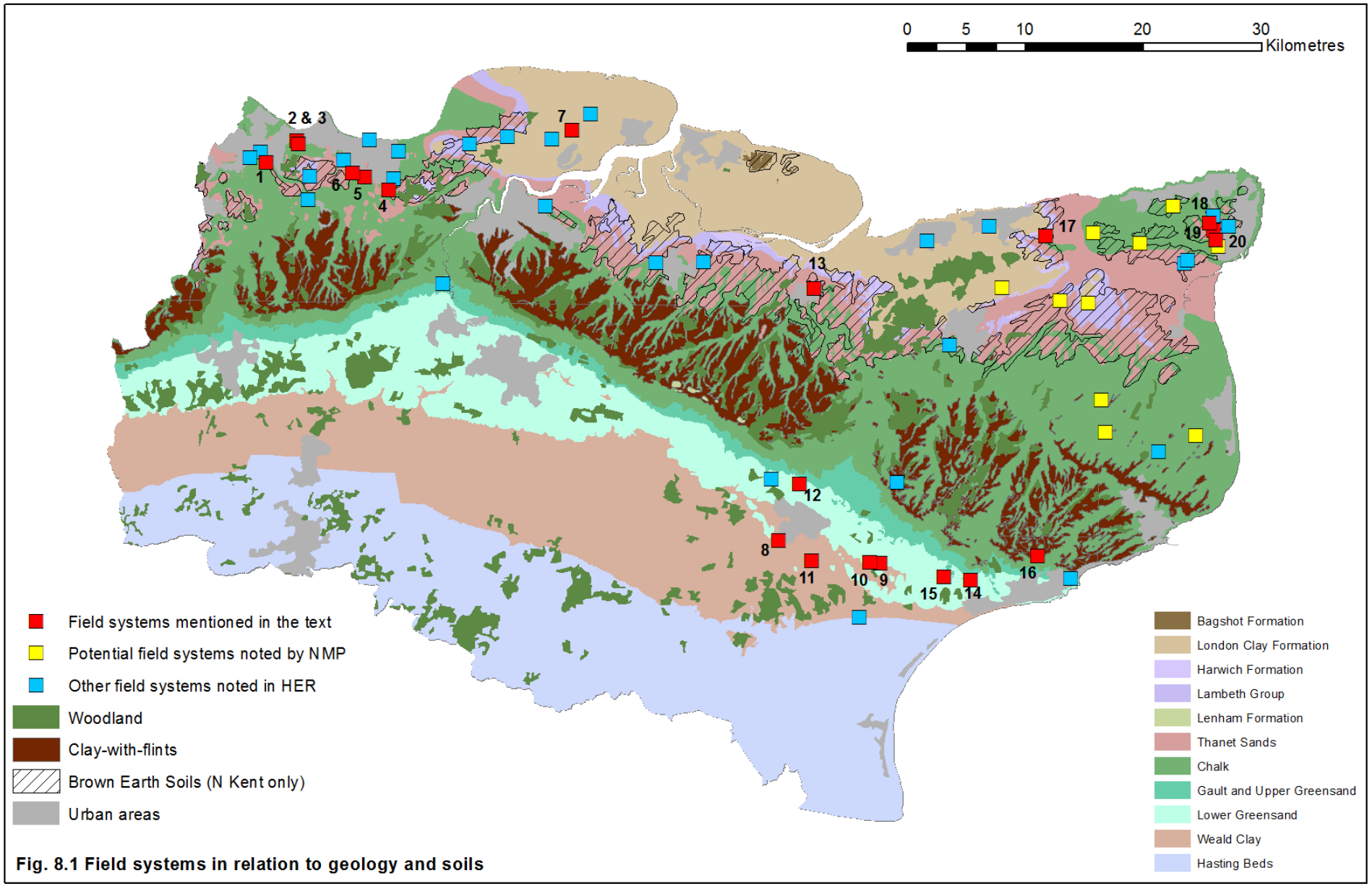


Fig. 8.1 Field systems in relation to geology and soils

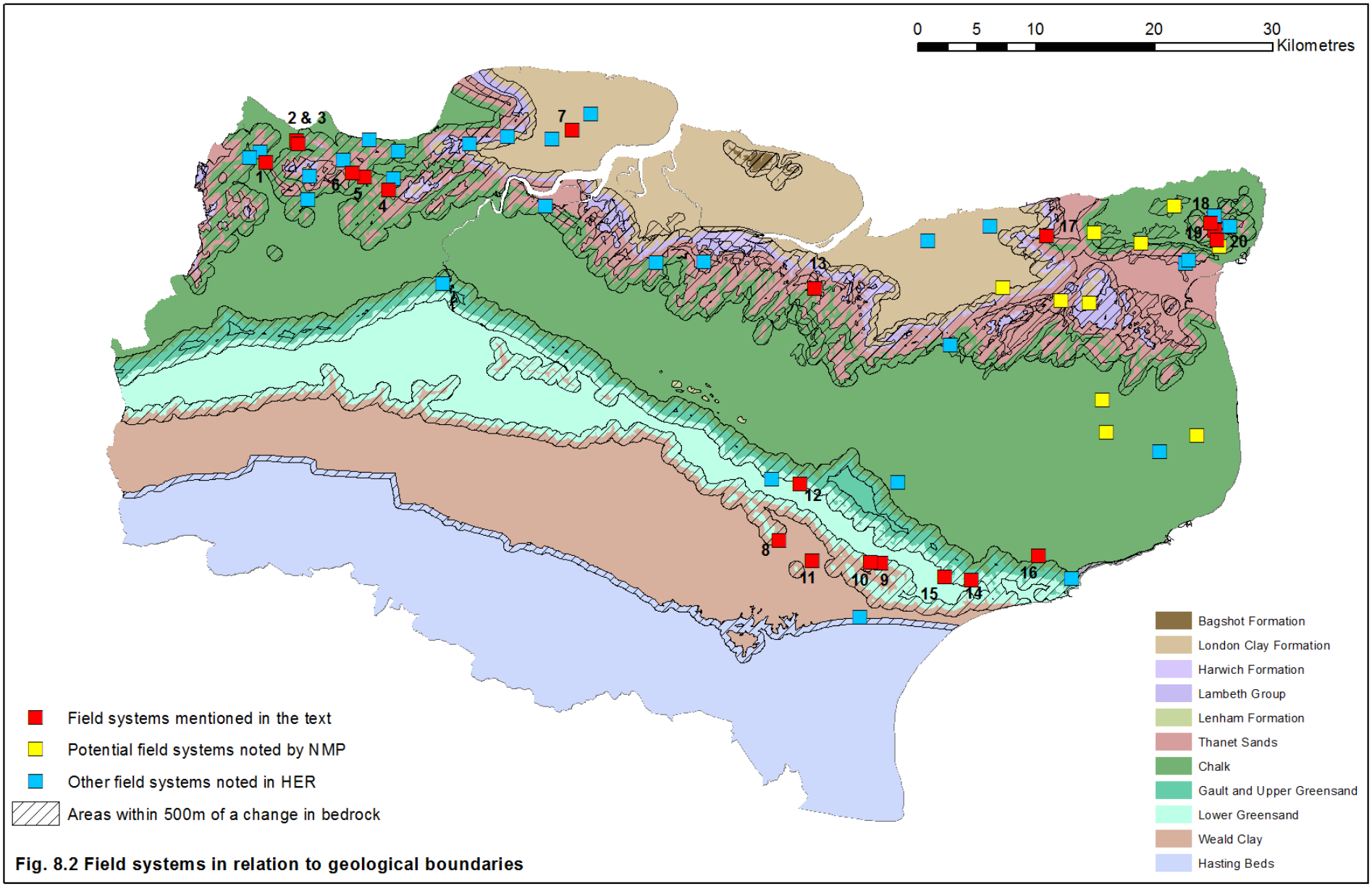


Fig. 8.2 Field systems in relation to geological boundaries

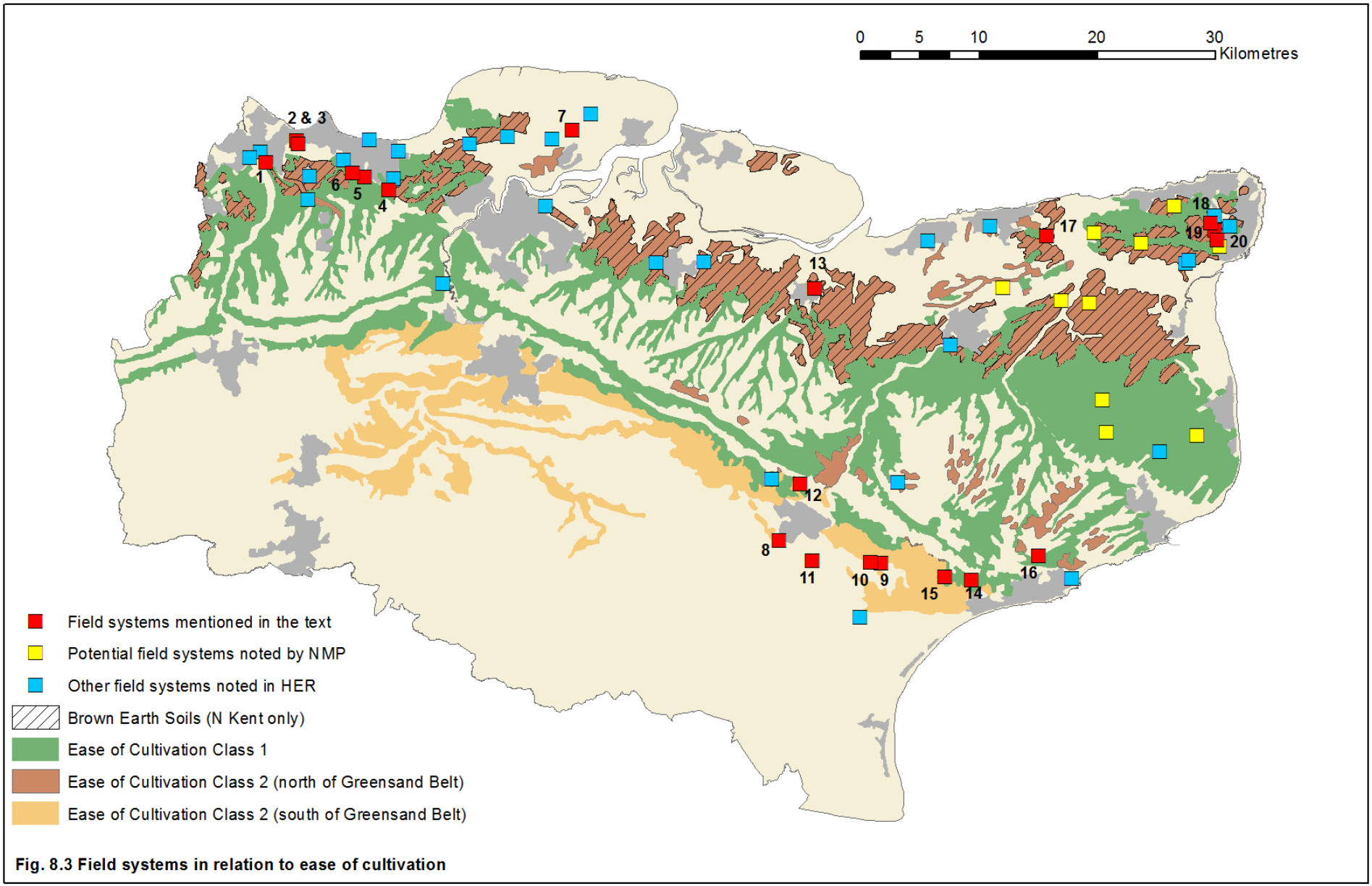


Fig. 8.3 Field systems in relation to ease of cultivation

Stock Farm, one of the few sites producing evidence of continuity from the Middle Iron Age period to the LPRIA (Ritchie 2006) has a series of Late Iron Age enclosures/fields which go out of use by the Roman period, with an apparent shift of activity to Bower Road (Diez 2006b). There is continuity of occupation at Highstead, near Chislet (Bennett et al. 2007) from the LPRIA to the Roman period, but the field system itself dates to the latter part of that range. At Manston Road, Ramsgate (Dawkes 2009c), however, a droveway associated with a rectilinear field system appears to have remained largely intact from perhaps the Early Iron Age through to the Transitional period, when various features suggest that it was respected by a new field system, perhaps consisting of above-ground fences or hedges.

The majority of field systems under consideration seem to have been created *de novo* on previously virgin territory or land not occupied since the Early Iron Age. At New Haine Road, Ramsgate (Wessex Archaeology 2008), a later Iron Age field system was laid out over the remains of a Middle-Late Bronze Age system but on a quite different alignment. At Terlingham III, Hawkinge, land apparently only periodically visited during the Early-Mid-Iron Age became a focus of activity in the Late Iron Age before being first enclosed and then divided into fields in the Early Roman period (AOC Archaeology Group 2006, 14). Only occasionally does the imposition of a field system seem to indicate a radical reorganisation of land already under occupation. West of Tollgate, (Sites B and C of the A2 road scheme; Allen and Powell 2012, 402) an area of Middle to Late Iron Age settlement was overlain by parts of a field system which appears to be a continuation of one developing from and attached to a Transitional enclosed settlement found just to the south at Northumberland Bottom during HS1 excavations. The addition of the field system appears to be associated with a possible change from domestic to ritual activity in the main enclosure at Northumberland Bottom (Askew 2006, 29).

South-east of Park Farm (Powell 2012), a Late Iron Age enclosed settlement containing a number of roundhouses went through a number of phases of reorganisation including the creation of several interconnecting, rectilinear enclosures. In the Early Roman period a new, more rigidly rectilinear field system following a new alignment (parallel with Margary's Route 131, some 600m away) replaced this evolving system. This may suggest some kind of (possibly quite large scale) imposed landscape reorganisation following the conquest. In the Early Roman period a rectangular field system was also imposed across Area 3 at Brisley Farm (Stevenson 2013, 189-196). This included an area interpreted as an earlier, circular "sacred space" with a central feature (possibly a tree) and surrounded by

peripheral burials and placed deposits (ibid., 96-99). Both here and at Park Farm the regularity with which ring gullies were accurately bisected by later ditches suggests that earlier features were respected in the act of desecration/decommissioning (ibid., 123,191; Powell 2012, 46). The "sacred space" at Brisley Farm was likewise bisected by a ditch which was interrupted at the site of its central feature, whether still in existence or now a memory.

It is rarely possible to see wide expanses of field system, although, just as at Pepperhill-Cobham Site D/Northumberland Bottom (Ch. 7 above), adjacent areas of excavation may tie smaller excavation areas into a wider picture. Excavations in advance of the A2/A282 improvements (Simmonds et al. 2011) produced evidence of elements of a field system of Transitional date which could be tied in with ditches found both at Blackdale Farm (Philp and Chenery 2001) and at Darenth Gravel Pit (Philp et al. 1998) to form elements of a possible system covering an area of some 26ha and running into the Darent and Longfield Valleys (Fig. 8.4). The ditches at Darenth Gravel Pit cut across an earlier Iron Age settlement which had been abandoned in the mid-1st century BC, reminding us that such realignments of the landscape were not necessarily a consequence of the conquest, but part of a widespread pattern of agricultural expansion and/or intensification beginning in the later Iron Age. This has been associated with the inception of non-agricultural settlements such as hillforts and *oppida* and the consequent need to create agricultural surpluses in order to feed their inhabitants (van der Veen and O'Connor 1998), a necessity which only increased with the spread of towns and nucleated settlements, not to mention the presence of a standing army and the imposition of taxes. The move onto previously unexploited areas may indicate either population expansion (new people cultivating new land) or "extensification", where yields are increased by the same population increasing the area under cultivation (ibid., 128).

There are a number of examples of field systems being reorganised, sometimes fairly rapidly. At Highstead Area A, a complex of ditches appears to form the vestigial remains of an arrangement of long, narrow fields thought to date to about AD 50-75 (Bennett et al. 2007, 78-81). This system was replaced by two field systems sharing a new orientation during the period AD 75-150 (the northern and southern complexes [ibid., 86-93]). The northern complex had three phases during this time, commencing with a single ditch which was subsequently overlain by a series of small, irregularly sized fields forming a rectangular block, these finally replaced by a larger rectangular block divided into just two fields. The

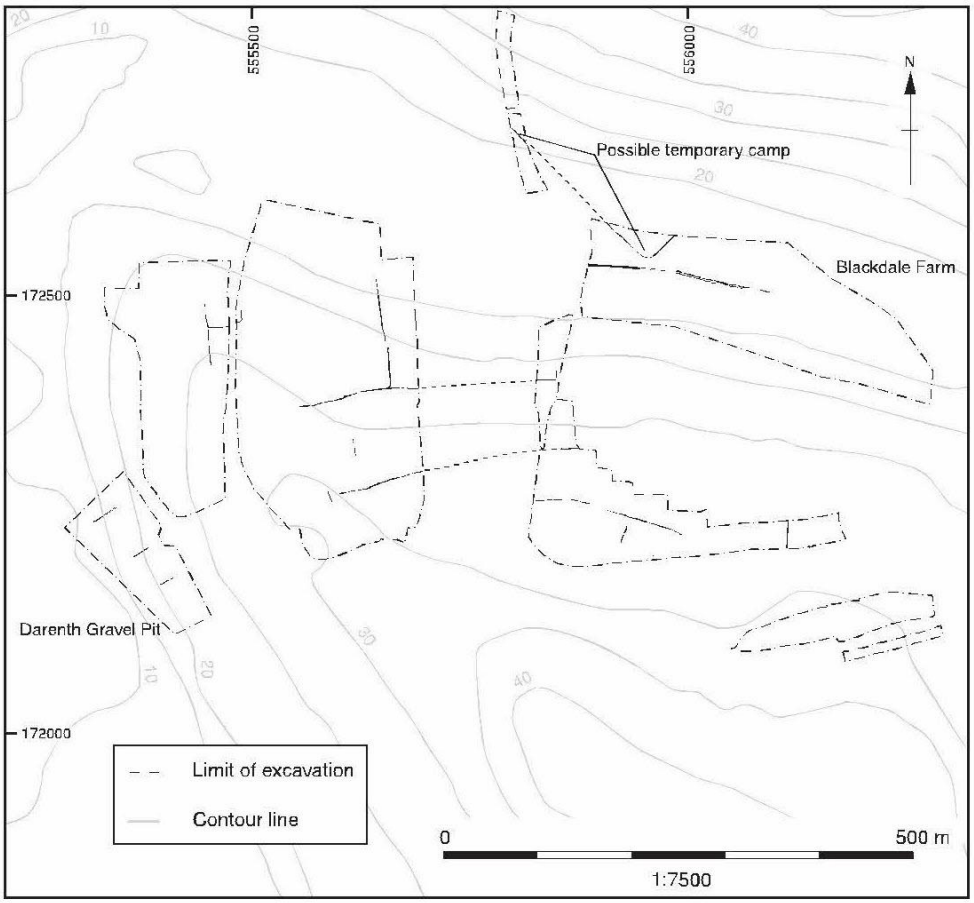


Fig. 8.4 Connecting elements of field system revealed in three different interventions in the Darenth area (Simmonds *et al.* 2011, Fig. 7.1)

southern complex also had two phases and again seems to have consisted of narrow fields flanked by a number of enclosures.

At Waterstone Park, two excavation areas provided evidence of land division and field systems. An Early Roman field system (Haslam 2005) went out of use relatively quickly, probably replaced by larger fields. Evidence found on the adjacent plot (Haslam 2009) was of Transitional date. A sequence of enclosures, the earliest of which may have been a corral, gave way to a field system similar to the Early Roman system mentioned above. This was soon reoriented, however, possibly for topographical reasons. Finally this system too was cut though by a substantial droveway. The labour required to reorganise such systems must have been immense in terms of ditch digging, possible backfilling of old features and hedge planting/uprooting. There must then have been some serious imperative, presumably relating to making the land more productive, directing such action.

Alternatively, new systems might be related to the amalgamation of parcels of land or to the division of land between heirs.

At Terlingham III, Hawkinge (AOC Archaeology 2006), several phases of enclosure and modification were undertaken in a period perhaps as short as 50 years (see Fig. 7.9 above). An area of over 1.7 ha was defined by substantial enclosure ditch (of which parts of two sides, running 140m north-south and 75m east-west were all that was exposed; Phase 3b). Within this, a rectilinear system was imposed (Phase 3c), suggesting a change in use, though probably not of tenure. In the following phase (3d) as many as five stages of modification were detected the most salient end result being the incorporation of a system of trackways within the system. It is suggested (ibid., 26) that this may indicate a more mixed approach to farming on land that had previously been predominantly either cropped or pastoral as the trackways would allow for the movement of animals between fields without the danger of crops being trampled.

It is difficult to be certain of the precise uses to which particular fields were put. Although a number of recent excavations have produced plant macrofossil evidence, this is frequently only in small quantity and may indicate consumption or small-scale processing rather than what was actually grown in the field in question. Most of the identified fields are incomplete so that their areas are unknown and features such as entrances and relationships between fields and droveways which are significant in terms of animal husbandry (Pryor 1996), are unclear. Many of the complete ones are (unsurprisingly given the limited excavation areas into which they fit) very small, even in comparison to the 0.16-0.25ha size that Reynolds describes as common in the Late Prehistoric period and representative of a day's labour (1995, 181). They may therefore be animal enclosures, garden plots or other specialised enclosures.

8.3 Evidence for crop cultivation, processing, consumption and storage

Direct evidence for crops in the archaeological record may be found in the forms of desiccated, charred or waterlogged pollen and macrobotanical remains. In practice, particularly in this region, charred plant remains are virtually our only source of knowledge. The British climate is not conducive the formation of desiccated remains; in the south-east of England there are very few pollen sequences (those that exist are mostly from the East

Anglian Fens; Dark 1999) and rare waterlogged deposits need to be used with caution. The Late Roman well at Thurnham (Giorgi and Stafford 2006, 40-42), for instance, provided a range of environmental evidence, yet there was surprisingly little pollen evidence for arable cropping, given the presence of a crop drier which is apparently remained in use until at least the end of the 4th century. It thus seems that the waterlogged remains are more reflective of vegetation which immediately surrounded and overhung the well than of the wider villa complex and its environment.

Carbonised plant assemblages represent only a very small fraction of the remains originally present and discarded at any site (van der Veen 2007, 977) and it is important to understand their formation processes if their significance is to be appreciated. Carbonised assemblages most often represent the use of plant waste products as fuel: these include not only chaff and straw but also the fine sieving residues of glume wheats dehusked domestically on a daily basis as well as other plant remains such as nutshells or fruit stones. Other sources of carbonised assemblages include: foodstuffs such as cereal grains and pulses which were accidentally burnt during processing or preparation; stored food and fodder destroyed by fire; the cleansing of grain storage pits by fire and the destruction by fire of diseased or infested crop seeds (ibid., 979). Overall, this means that only a limited range of evidence, largely restricted to a record of the major staples, is preserved (ibid., 978). Even within this limited range the evidence is biased: grains survive fire better than lighter plant components (Boardman and Jones 1990; Hillman 1981, 140), whilst the remains of crops (such as free threshing wheat) which do not require parching in order to separate the grain are likely to be underrepresented.

Depositional processes are equally important. Carbonised plant remains may become incorporated into a feature or structure after it has gone out of use and thus do not necessarily relate to its function. In some contexts (e.g. funerary) the deposition of carbonised plant material may be deliberate and have symbolic significance. As hearths and furnaces/ovens require to be cleaned out on a regular basis the sweepings are likely to be deposited as secondary refuse in a separate but probably not distant location, for instance a nearby ditch. Granaries, under normal circumstances, are likely to be free of evidence as even if grain were stored loose we would not expect it to be carbonised.

In a survey of data available in 2006, van der Veen et al. (2007) found that although there were a reasonable number of sites in the South East having records of archaeobotanical data, good quality datasets (those going beyond a 'species list') were all but absent from

Kent (ibid., Fig.12). The same survey also found that in the wake of PPG16's guidelines there was dramatic decline in the number of archaeobotanical samples analysed in Britain during the 1990s (ibid., 202).

Nevertheless, the situation in Kent has dramatically improved over the last decade or so. As shown in Table 8.2, between 1999 and 2013 charred grain assemblage analyses have been made for over 40 sites/interventions in Kent.[iii] The majority of these are specialist reports with detailed tables; others represent interim reports. Ten of the detailed reports derive from HS1 excavations and the majority of others, including those still in interim state, derive from large scale developer-led excavations conducted by large commercial firms who have access to the financial and specialist resources required for such undertakings and undertake large commercial work subject to project briefs drawn up by Local Government Planning Archaeologists. This means that the quality of environmental data for a site such as Northfleet Villa is far greater than that for The Mount, Maidstone, where Robinson (1999, 147) notes the limited funds available for detailed work, let alone the local society-excavated villas at Eccles and Minster for which there are no environmental reports as yet.[iv] Within the examples cited, there are large variations in the numbers of samples analysed. This is largely down to the preservation of the botanical remains themselves: in the majority of cases all samples with worthwhile concentrations of botanical remains have been analysed.

In the vast majority of samples, the charred plant remains derive from crop-processing waste used as fuel. On the HS1 sites, Giorgi and Stafford (2006, 34) note that the assemblages mainly derive from the final stages of processing, with fewer from the earlier stages. They thus relate more to the routine domestic processing of grains to be consumed than to *agricultural* processing per se and tell us more about what was being eaten than what was being grown on the sites concerned. It is a reasonable assumption that the grains consumed represent those being grown locally, but there is no reason why some of these should not have been traded or bought in. Indeed Carruthers (2003b,4), pointing to the very low proportion of charred crop remnants in environmental samples taken along the Hadlow to High Halden Pipeline, situated on the heavy Wealden Clay, suggests that these communities (whose economic basis was likely to have been in the iron industry) were doing precisely that. The same author (Carruthers 2013, 361) similarly finds that cereal cultivation formed a minor part of the Late Iron Age to Early Roman economy at Brisley Farm and that the cereal remains recovered could have been brought in as semi-clean

Site	Reference	Report Status	No of samples fully analysed	Barley	Spelt	Emmer	Free-threshing wheat
A2/A282 Improvements	Smith 2011b	Detailed; published	7	✓	Dominant	✓	
Beechbrook Wood (ERB cremation)	Giorgi 2006a	Detailed; published	1	2 only	Dominant	✓	
Bleak house, Broadstairs	Moody and Gray 2010	Detailed, unpublished	6	2 only	✓	✓	✓
Bower Road	Stevens 2006a	Detailed; published	24	3% or less	Dominant	✓	✓
Brattle Farm	Carruthers 2003b	Detailed; unpublished	4		✓	✓	
Brisley Farm (LIA & ER)	Carruthers 2003a; 2013	Detailed; published	8	✓	✓	✓	✓
Broad Forstal	Carruthers 2003b	Detailed; unpublished	2		✓	✓	
Coldswood Road	Stevens, C. 2009a	Detailed; published	8	✓	Dominant	✓	
Cottington Hill	Stevens, C. 2009a	Detailed; published	3	✓	✓	✓	✓
Cottington Road	Stevens, C. 2009a	Detailed; published	15	✓	✓	✓	
Ebbsfleet Lane Roman	Stevens, C. 2009a	Detailed; published	4	✓	Dominant	✓	
Ebbsfleet Lane Transitional	Stevens, C. 2009a	Detailed; published	5	✓	Dominant	✓	
Fairlawn Villa Plaxtol	Wessex Archaeology 2010	Interim; PXA	n/a		Possible		
Farningham-Hadlow Pipeline 12/08	Wessex Archaeology 2010	Interim; PXA	n/a	✓	✓	✓	
Farningham-Hadlow Pipeline MT01	Wessex Archaeology 2010	Interim; PXA	n/a	✓	✓	✓	Possible
Grain-Shorne Pipeline Area B	Allot 2009a	Interim; PXA	n/a	✓	✓	?	✓
Grain-Shorne Pipeline Area G	Allot 2009a	Interim; PXA	n/a	✓	Glume wheat		✓
Grain-Shorne Pipeline, Area K	Allot 2009a	Interim; PXA	n/a	✓	?	?	?
Grange Farm	Gray 2008	Interim; PXA	n/a	✓	✓	✓	Possible
Kingsborough Farm & Manor	Stevens, C. 2009b	Summary; unpublished	Unknown	✓	✓	✓	
Leda Cottages	Diez 2006a, 6	Summary; published	Unknown		Dominant		
Little Stock Farm (M-LIA)	Stevens, C. 2006c	Detailed; published	15	Dominant	✓	✓	
Monkton	Pelling 2008a	Detailed; published	11	✓	Dominant; distinct variety		
Northfleet	Smith 2011a	Detailed; published	33		Dominant		
Northumberland Bottom	Davis 2006a	Detailed; published	28	✓	Dominant	✓	✓
Omenden iron working site	Carruthers 2003b	Detailed; unpublished	1		✓	✓	

Table 8.2 Environmental (charred plant remains) reports (cont. overleaf)

Site	Reference	Report Status	No of samples fully analysed	Barley	Spelt	Emmer	Free-threshing wheat
Park Farm South-East(LIA & ER)	Stevens 2012	Detailed; published	4	✓	✓	✓	
Queen Elizabeth Square (including M-LIA)	Pelling 2004	Detailed; published	4	✓	✓	✓	
Saltwood	Stevens 2006b	Detailed; published	22	✓	Dominant	✓	Rare
Snarkhurst Wood	Diez 2006c, 10	Summary; published	Unknown	✓	✓		
Snodland Villa	Allot 2009b	Interim; PXA	n/a	✓	Glume wheat		✓
Springhead LIA	Stevens 2011	Detailed; published	12	✓	Dominant	Higher prop than R sample	
Springhead Roman	Stevens 2011	Detailed; published	133	✓	Dominant	✓	Rare, may be spelt
Stone Road, Broadstairs	Roberts 2005	Detailed, unpublished	8	✓	✓	✓	
Swanscombe	Giorgi 2010	Summary; published	8	4%	Dominant	✓	
The Mount	Robinson 1999	Summary; published	6		Dominant		
Thurnham	Smith & Davis 2006	Detailed; published	33	✓	Dominant	✓	Rare
Tollgate	Davis 2006b	Detailed; published	1		✓		
Pepperhill-Cobham Site D	Smith 2012	Summary; published	2		✓	Possible	
Upton house, Broadstairs	Moody and Pipe 2007	Detailed; unpublished	3	✓	Dominant	✓	✓
Westhawk Farm	Pelling 2008b	Detailed; published	8	✓	Dominant	✓	
Whitehill Rd (South of Station Road)	Giorgi 2006b	Detailed; published	8	✓	✓	?	

Table 8.2 (cont.) Environmental (charred plant remains) reports

spikelets: weeds favouring the heavy damp local soils were absent, emmer formed an (unusually) high proportion of the wheat remains and pollen samples suggested that the site was surrounded by grassland with small areas of woodland. Occasional cleaner deposits, such as that found in the corn-drier at Swanscombe (Giorgi 2010) suggest the loss of grain at a much later stage of processing, when ready for milling or storage (though not necessarily deposited in situ).

8.3.1 Crop species

The first half of the first millennium BC was a major period of innovation in agriculture with the introduction of a number of new species of crop (Jones 1981, 104). These include spelt wheat (*Triticum spelta*), bread wheat (*Triticum aestivum/compactum*) , rye (*Secale cereale*), celtic bean (*Vicia faba minor*), common oat (*Avena sativa*) and bristle oat (*Avena strigosa*) (although examples of spelt and celtic bean have occasionally been ascribed to the Neolithic and bread wheat to the Bronze Age). Barley continued to be cultivated.

The take up of these innovations has been discussed mainly with reference to the replacement of emmer by spelt wheat. Spelt became the dominant staple over most of the south to the point that Campbell (2000, 46) finds that by the very beginning of the Iron Age, emmer wheat was no longer grown either as a crop in its own right or as a maslin in the Danebury region. Emmer did, however, continue as a major crop throughout the Roman period in the north (van der Veen 1992).

Spelt tolerates heavier soils, is hardy and performs better in cold winters (van der Veen and O'Connor 1998), nevertheless, the switch seems to have taken place earlier in parts of southern Britain than in the north and so environmental factors seem unlikely to have been the only motive for the change (van der Veen and Palmer 1997, 180). Van der Veen (1992) associates the switch with a move from intensive to extensive cultivation regimes, finding that emmer thrives under intensive farming conditions whereas spelt still succeeds given less intensive care and on more marginal soils: if emmer and spelt were sown as maslin crops, spelt would thus come to dominate by a process of natural selection as the area of cultivation expanded.

The cultivation of emmer seems to have persisted in Kent and as shown in Table 8.2, it forms a part of most Transitional and Roman period assemblages, apparently still occurring in the Late Roman period. The persistence of emmer as a significant crop, particularly into the Late Iron Age and even in "reasonably high quantities "during the Roman period at, for instance, Saltwood (Stevens 2006b, 11) may thus indicate something of the nature of agricultural regimes at the turn of the Millennium, suggesting that there was no great pressure towards increasing agricultural production and the persistence, at least in part, of a tradition of small fields, intensively worked rather than expansion. As noted above, the sizes of fields, where known, tend to be small. The sowing of mixed wheat crops may also have been a response to the varied soils conditions found in Kent: spelt would fare better

on the heavier soils and emmer in lighter, drier conditions. This would tie in with the location of much Roman period settlement evidence on or near geological boundaries. Despite the persistence of emmer in the record, spelt wheat is, nevertheless, clearly dominant in more than half the detailed environmental reports. Free-threshing (bread) wheat is less commonly found but, as it does not need parching in order to release its grain is less likely to be preserved by accidental charring.

Barley is frequently present, though usually in lesser quantities than wheat. This too may be partly an artefact of preservation as barley was valued as fodder and thus less likely to be subjected to fire (Carruthers 2003b, 3). Its total absence from samples analysed along the Hadlow to High Halden Pipeline, has been suggested as resulting from the unsuitability of the heavy clay soils (ibid.). Jones (1981, 105) cautions, however, that perceptions of soils suitable for the cultivation of barley are skewed by the specific requirements of those varieties used for modern brewing. If the chief economic activities in the Weald were concerned with woodland management and the iron industry, it is possible that there were fewer draft animals (probably oxen) to feed and that these may have been put out to wood pasture.

Oats are fairly ubiquitous finds but it is rarely possible to distinguish between cultivated and wild species. Cultivated oats were a relatively new crop in the Iron Age and again valued as fodder (Carruthers 2003a, 89). At Brisley Farm, initial appearances suggested that oats seemed to be especially associated with 'special' deposits including those containing horse (ibid., 88) but no mention of this is made in the published monograph (Stevenson 2013). From present evidence, rye does not seem to have been cultivated in Kent before the Saxon period.

Remains of legumes have been found at a number of sites, usually in small numbers, and cultivated varieties are frequently indistinguishable from wild. It seems likely that some of these may represent 'volunteer' self-seeded plants, the remnants of previous sowings if crop rotation were being practised. Peas may have been grown as fodder (as well as to improve soil fertility through nitrogen fixation) but a sample containing over 2000 pulses from an Iron Age context at Queen Elizabeth Square, Maidstone (Pelling 2004, 14) appeared to have been of peas grown as a culinary crop. Evidence of flax (whether grown for oil or for fibre) has been found at Springhead, Thurham Roman Villa, Northfleet Roman Villa, Northumberland Bottom. It is possible that in the Roman period, as now, cob nuts were cultivated. A range of fruits, probably foraged from the wild were evidenced in

waterlogged remains from Springhead, Northfleet and Thurnham (including sloe, cherry, blackberry/raspberry, apple/crab apple, cherry, and elder). Potential horticultural crops are poorly represented as they are rarely exposed to fire in the same way as grains but there is evidence for the possible cultivation of coriander, beet and onion from Springhead and possibly carrot from Thurnham.

8.3.2 Evidence for cultivation methods

Weed seeds can be a particularly useful source of information regarding the conditions under which crops were cultivated and harvested.

8.3.2.i Soil conditions

Although a great many of the species recorded are general weeds of disturbed/cultivated ground, some have more specific requirements. One species regarded as a significant marker is stinking mayweed/chamomile (*Anthemis cotula*) which favours heavy clay and clay loam soils and which may have been a Roman introduction (Godwin 1984). This has been recovered from at least five sites in Kent, including a late Roman context at Thurnham, several 2nd century contexts at Bower Road, a kiln/oven dated by association to the Late Iron Age /Roman period on the Farningham-Hadlow Pipeline (MT01) and Swanscombe (including the Late Roman corn-drier). It was the most abundant weed present in pit 753 at Monkton (undated), the 4thcentury corn-drier/malting oven at Northfleet Villa and in Late Roman contexts at Northumberland Bottom (including the kiln rake out from the Mid/Late Roman corn-drier at Hazells Road [context 184]). Other species, such as narrow-fruited corn-salad (*Valerianella dentate*) or pinks (*Dianthus*) are more characteristic of drier, calcareous soils, whilst plants such as sheep's sorrel (*Rumex acetosella*) and scentless mayweed (*Tripleurospernum inodorum*) are associated with lighter, acid and/or dry conditions. In a number of cases, such as at Bower Road and Thurnham, the range of weed species, even within individual samples suggests a variety of soil types. This may indicate either exploitation of a variety of terrains or simply that, for instance, boggy areas may occur within otherwise dry fields; this situation was probably more common in the past, prior to the introduction of land drains, particularly on

comparatively newly-cultivated land. The larger concentrations of stinking mayweed at Monkton, Northfleet and Northumberland Bottom/Hazells Road suggest that in these cases the former applies.

Jones (1981, 111-2) associates this implied expansion onto heavier soils with developments in plough technology, for instance the introduction of coulters and asymmetric shares by the 3rd or 4th centuries AD. At present the only example of either of these from Kent appears to be an asymmetric share from Folkestone Villa (Applebaum 1972, 75; Manning 1964, 65).

8.3.2.ii Soil maintenance

Land being regularly cropped needs maintenance in order to retain fertility. Evidence for this is difficult to isolate archaeologically. The presence of leguminous weeds suggests soils which are low in nitrogen as the result of over-cropping and such *might* be seen in the evidence from Northfleet where small leguminous *taxa* were more frequent in later periods (Smith 2011, 112). In other cases, however, where identifications are not so secure, leguminous weeds may, as suggested above, be associated with the cultivation of peas/beans and possible crop rotation. In addition, or as an alternative, land may have been allowed to lie fallow. Manuring was probably widely practised as evidenced in the HER by pottery scatters without direct evidence of habitation. Pliny (*Naturalis Historia* 17. IV.42) remarked that marling was a technique first practised in Britain and Gaul. Kent, with its heavy clays and abundant chalk is an obvious area for the development of such a practice; quarry pits such as those found at Upton House, Broadstairs (Moody 2007) as well as Kent's enigmatic dene holes may have been for the purpose of extracting chalk at least partially for use in the fields. Indeed Pliny's description (*Naturalis Historia* 17. IV. 45),

> alterum genus albae creta argentaria est. petitur ex alto, in centenos pedes actis plerumque puteis, ore angusto, intus, ut in metallis, spatiante vena..[v]

would seem to describe a denehole with its deep shaft, narrow entrance and branching galleries at the bottom.

8.3.2.iii Sowing

It has been suggested that emmer wheat is better suited to spring sowing (e.g. Jones 1981, 106); Hillman (1981, 146-8) argues convincingly against this. In this relatively mild corner of Britain, there is no reason to assume that autumn sowing of wheat was not the norm; autumn grown crops tend to give higher yields. It is possible, though, that the work load may have been spread by the sowing of Barley and peas in the spring (*ibid.*). The presence of cleavers (*Alium aparine*), recovered from a number of assemblages in Kent (Beechbrook Wood, Bower Road, Little Stock Farm, Saltwood, Springhead, Farningham-Hadlow Pipeline [MT01] oven) is considered indicative of autumn sowing (ibid., 146).

8.3.2.iii Harvesting

Grain harvests may have been accomplished by a number of methods, including uprooting, sickle-reaping of ears and straw together, separate reaping of ears and straw and the plucking of glume-wheat ears followed by separate reaping or uprooting of the straw (Jones 1981, 114; Hillman 1981 148-153) . Reynolds (1981, 113) found by experiment that much the easiest method with glume wheats was to reap the ears by hand; he suggested that the tools commonly recognised as small sickles more efficiently perform other functions. The existence of few assemblages including both grain and the seeds of low-growing plants such as clover (e.g. Bower Road; Thurnham Villa) nevertheless suggest that sickles or reaping hooks were in use, although this aspect is rarely commented upon in the reports consulted.

8.3.3 Processing

Once harvested, cereal crops need to be put through a number of processes before the clean grain can be recovered.[vi] Bulk processing operations include drying, threshing, winnowing, and sieving. Sheaves might initially be dried in the field, or alternatively in the large barns and posted structures which come to characterise certain Roman villas and settlements. Barns might also have been used for threshing and/or for the chitting of grains as part of the malting process. Despite Kent's relatively benign climate, it still suffers from

the changeability of the British weather and ability to process crops no matter what turn this took must have greatly aided efficiency. Glume wheats would be stored in spikelet form (either after or before the first winnowing and sieving) in order to give the grain extra protection against disease and avoid spoilage due to damp conditions. This is one point at which crops may have been exposed to heat, in order to render the spikelets completely dry before storage. Other than the existence of barns and possible corn-driers, Kent appears at present to have little evidence for any of these processes.

Further domestic processing would take place on a day to day basis on settlement sites as witnessed by the charred assemblages discussed above. The spikelets might then be parched in order to render the hulls brittle before being pounded to release the grain (although see below) before another sequence of winnowing, sievings and hand sortings.

8.3.3i Corn-driers

The structures commonly known as 'corn-driers' appear largely to be restricted to the southern and eastern areas of Britain and mostly date to the 3rd and 4th centuries (van der Veen 1989, 302). Their potential use has been the cause of debate for some years. Initially assumed to be for the drying of crops before storage, experiments by Reynolds and Langley (Reynolds and Langley 1979; Reynolds 1981) using reconstructions of both a rectangular and a T-shaped corn-drier, suggested that they operated more efficiently as malting ovens. This conclusion was challenged in a study by van der Veen (1989) whose analysis of charred grain assemblages associated with corn-driers suggested that such structures were in fact used for a variety of purposes including the roasting of germinated grains for malt production and the parching/drying of grain for consumption and storage.

HER No	Name	Type of site	Confirmed?	Environmental evidence	Drier date (if known)	Type	In
TQ 75 NW 137	Bradbourne House/Fields	Possible farmstead	Confirmed	Sprouted spelt noted on site, context unclear		Rectangular, two chambers	
TQ 94 NE 24	Charing Romano-British building	Modest building/villa	Possible	x		Channelled drying room	Dwelling
TQ 57 SE 30	Darenth Villa	Villa complex	Confirmed	x		Channelled; two chambers	Aisled building
TQ 76 SW 10	East Farleigh Roman buildings	Probable villa complex	Possible	x	Not clear; contained 3rd/4th century hair pin	Long hearth	Masonry hall
TQ 75 SW 8	Eccles Villa	Villa complex	Confirmed	x	Channelled = 4th century; Pillared = undated	1) Channelled drying room; 2) Pillared ?drying room	Dwelling
TQ 65 SW 162	Fairlawn Villa	Modest villa	Possible	Large quantities of cereal remains, mainly hulled wheat		Small, keyhole oven/kiln; rectangular oven/kiln	x
None	Farningham to Hadlow MT01	Unknown	Confirmed	Large quantities of hulled wheat and barley fragments & weed seeds	LIA/Romano-British by association	Sub-rectangular with fired clay/wattle superstruc-ture	x
TQ 77 SE 159	Four Elms Roundabout, A289	Enclosed settlement	Confirmed	x	Mid 3rd century or later	Rectangular; modification of earlier structure	x
TQ 67 SW 549	Hazells Road	Field system and trackway	Confirmed	Mainly wheat glumes, predominantly spelt	Whole site Late Roman	Rectangular; two chambers	x
TR 26 SW 25	Hoath	Unknown	Possible	x		Unconfirmed	x
TQ 57 SW 1	Joyden's Wood	Open settlement	Possible	x		Unconfirmed	x
TQ 56 SW 30	Lullingstone Park	Enclosed settlement	Possible	x	Site Transitional	Unknown	x
TR 36 SW 67	Minster Villa	Villa complex	Confirmed	x	4th C	Reversed tuning fork; two chambers	Timber barn
TQ 67 SW 350	North of Watling St	(Springhead)	Confirmed	x		Unknown	x
TQ 67 SW 38	Northfleet Villa	Villa complex	Confirmed	Grain; chaff; germinated grain etc; weeds	2nd half 4th century	Rectangular; one chamber	x
TR 26 NW 67/1010	Reculver	Saxon Shore Fort	Confirmed	x		Unique," like medieval malt kiln" (Morris 1979, 16)	x

Table 8.3 'Corn-driers' and related structures (x = absent; cont. overleaf)

HER No	Name	Type of site	Confirmed?	Environmental evidence	Drier date (if known)	Type	In
TR 13 NE 217	Saltwood	Field system and trackways	Possible	Poor in plant remains (though not in charcoal)	Early Roman	Large sub-rectangular pit	x
TQ 76 SW 23	Snodland Villa	Villa complex	Possible	x		Channelled drying room	Dwelling
TQ 67 SW 6	Springhead	Small town/religious centre	Confirmed	One contained free threshing grain	Early Roman	1)Two chambered, masonry; 2) Long hearth	x
TQ 67 SW 176	Station Rd, Southfleet	(Springhead)	Possible	x	After AD 160	Unusual; masonry; 4 chambers; function unconfirmed	x
TQ 67 SW 222	Swanscombe High School	Enclosed farmstead	Confirmed	Relatively clean grain; predominantly spelt (though other wheats and barley present)	Late 3rd -4th century	Simple; long hearth/bowl	x
TQ 75 NE 374	Thurnham Villa	Villa complex	Confirmed	Wheat grains and chaff	Possibly as late as Early 4th century	L-drier; two chambers	Built over portion of 14-post structure, which was modified or demolished towards end of 3rd century
TQ 86 SE 86	Wises Lane, Borden	Field system	Possible	x		Unconfirmed Possibly with flue running into ditch	x

Table 8.3 (cont.) 'Corn-driers' and related structures x = absent)

Corn-driers are not particularly common in Kent. There are potentially 15 masonry-founded examples from the county (including several from the roadside settlement at Springhead and one from Reculver. There is also an example from Keston Roman Villa (Philp et al. 1991, 87-88) just outside the study area. In addition, eight sites have furnished examples of simpler structures such as bowl furnaces or long hearths which have either been classed in reports as corn-driers or which have produced environmental evidence suggesting an association with grain processing (Table 8.3). The commonest form of corn-drier, the T-shaped, which appears to have developed in the 2nd century (Morris 1979, 20) appears to be absent from Kent. The most substantial (the varieties of rectangular masonry-founded structures – see below - and channelled drying rooms) are concentrated in the north-west of the county (particularly on the Foothills) and the Holmesdale, although there are two outliers either side of the Wantsum Channel (Fig. 8.5). These categories are also most frequently, though not exclusively, found on villa sites.

At Eccles (room 121) and Snodland villas, the late addition of channelled hypocausts to rooms integral to the main house are suggested to indicate their conversion to use as drying rooms, although this cannot be confirmed (Birbeck 1996, 118-9; Detsicas 1971, 29). A similar function has been suggested for room 124 at Eccles villa, this time with a pillared hypocaust. All are small rooms, situated at the corner of the building, convenient for external access. Detsicas (1975a) also believed that the small, channel-hypocausted room 4 of a small building at Charing could "only be interpreted as a corn-dryer" although it was not included by Morris in her corpus (1979).

A number of other corn-driers were certainly inserted into buildings. A pair of adjacent ovens (classified by Morris as channelled) was inserted at a late stage into the aisled building at Darenth (Philp 1973, 128) in a manner not dissimilar to the insertion of a triple oven into the north timber building at Keston (Philp et al. 1991, 87-88). At Thurnham, a corn-drier was built over the north-west portion of the 14-post structure after it had apparently been modified or demolished towards the end of the 3rd century (Lawrence 2006, 12). The positioning of the drier here may suggest that there was sufficient of the building left to provide some shelter. The Late Roman corn-drier at Minster Villa was housed in a post-built, possibly open structure (Moody 2010b, 317). It is possible that other driers were also protected from the elements, perhaps by timber buildings which have left no mark, but there seems to have been no evidence of such at Northfleet Villa (Biddulph 2011, 215; 225) or Hazells Road (Askew 2006, 34).

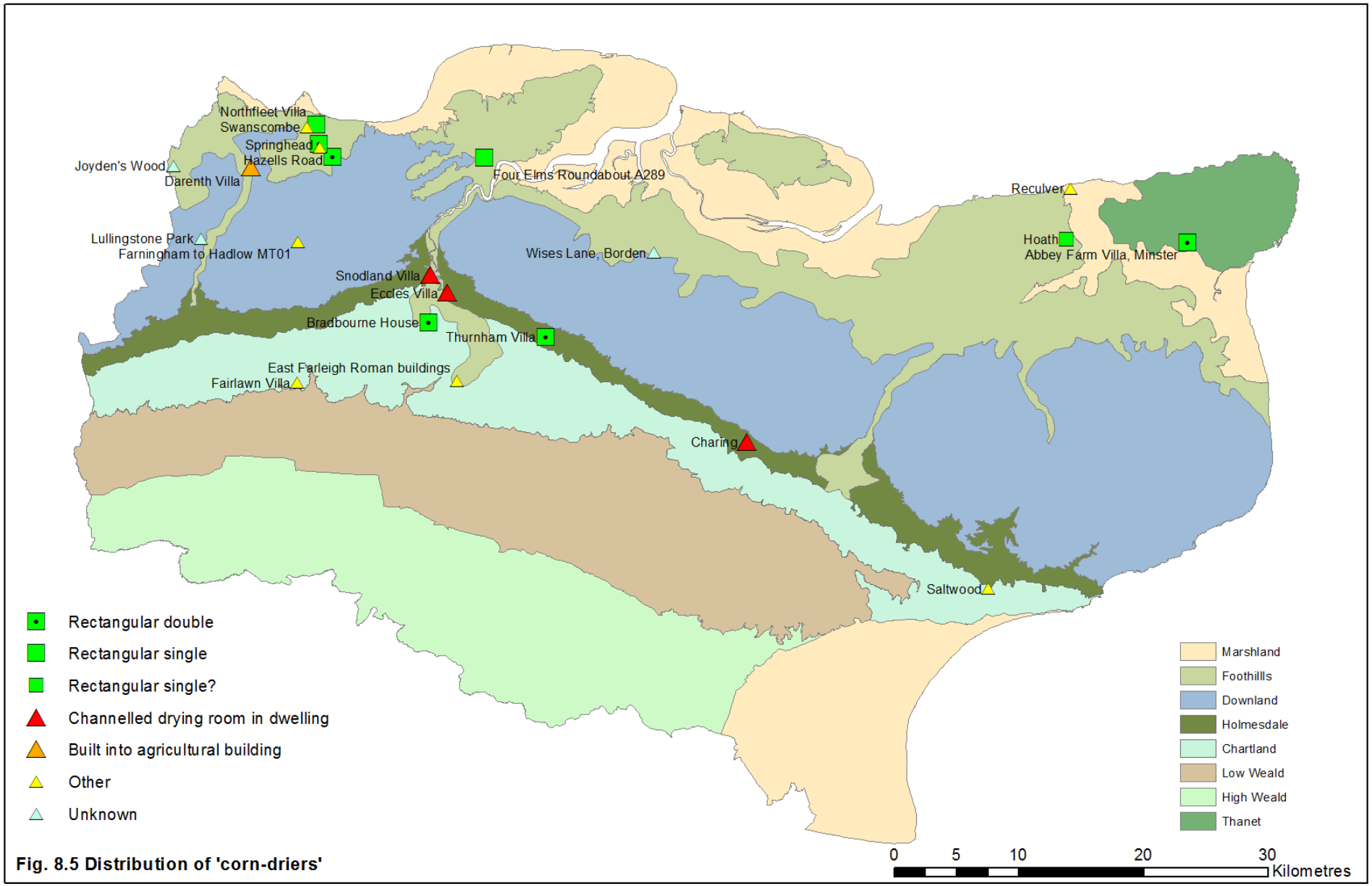
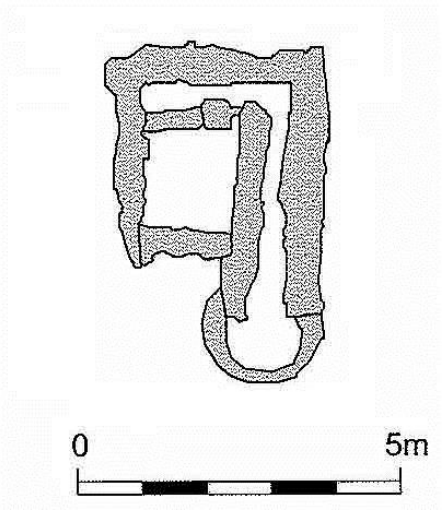


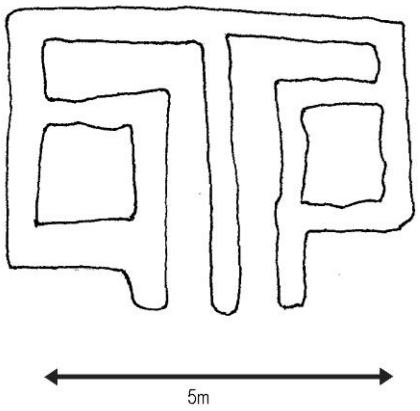
Fig. 8.5 Distribution of 'corn-driers'

Although no two corn-driers in Kent seem to conform to exactly the same pattern, there is a group of single and double driers that relate to the types which Morris (1979, Fig. 11) classifies as rectangular, L-shaped or reversed tuning fork (Fig. 8.7). Significantly, the Late Roman drier at Northfleet, where environmental evidence points unequivocally to malting and brewing on an industrial scale (Biddulph 2011, 224-6), is almost identical in size and shape to the Late Roman structure from Foxholes Farm, Hertford which was one of the models for Reynolds' experiment (Fig. 8.6). This has an L-shaped flue and is replicated in double form at Thurnham (4th century). Although there was some evidence for malting at Thurnham, it was less conclusive and not directly related to the drier. A structure at Hoath (Gough 1972) for which there is no available plan may also be an L-drier. The chambers of the Mid/Late Roman double drier at Hazells Road are closely related in plan to that of the (probable 4th century) single drier at Longthorpe, Cambridgeshire (Morris 1979, 101; Fig. 11) although the latter had a solid masonry platform whereas the chambers at Hazells Road apparently had raised floors. The presumed drier at Four Elms Roundabout, Frindsbury Extra (Rady, 1998, 15-17) appears unique in having a flue which extends around all four sides of the central platform. The twin-chambered drier at Minster has flues of Morris' "reversed tuning fork" type. Nevertheless, there are enough similarities between these structures to suggest that they form a regional group. A further, less well-preserved double

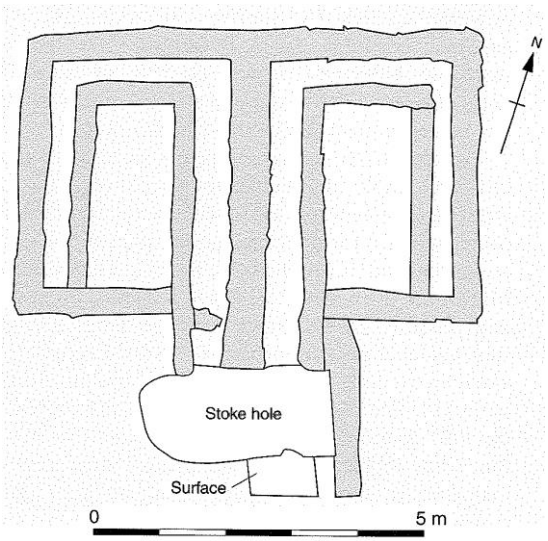
Fig. 8.6 Reconstruction of corn-drier at Butser Ancient Farm (adapted from Butser Ancient Farm website http://www.butser.org.uk/iafrbgd_hcc.html, accessed 08/09/2013).



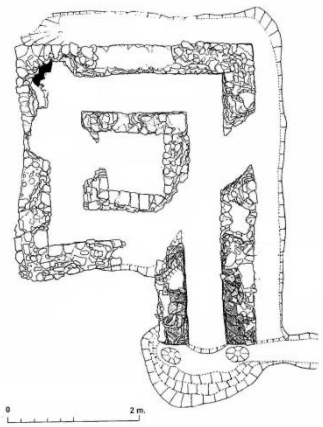
a) Northfleet Villa



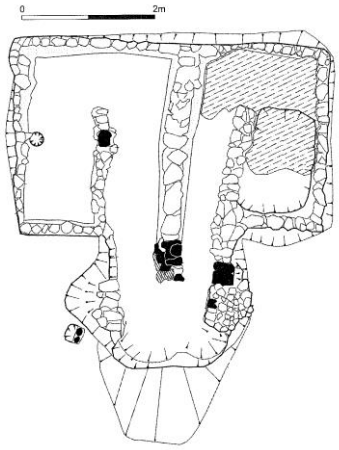
b) Thurnham Villa



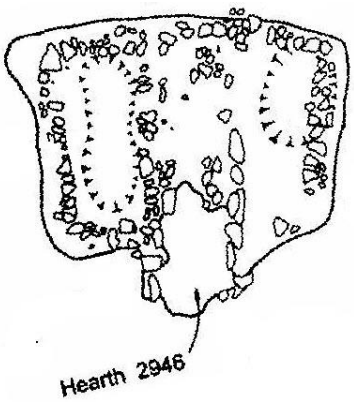
c) Hazells Road



d) Four Elms



e) Minster Villa



f) Bradbourne House (no scale, 4 x 2.6m)

Fig. 8.7 Comparative plans of rectangular corn-driers

(a) adapted from Biddulph 2011, Fig. 3.34; (b) redrawn from Booth 2011, Fig. 5.36; (c) adapted from Booth 2011, Fig. 5.36; (d) adapted from Rady 1998, Fig. 11; (e) adapted from Moody 2010b, Fig. 3; (f) adapted from Ward *et al.* (nd)

drier appears to have been misidentified as a building with porch (Structure 1) at Bradbourne House, East Malling (Ward et al. nd, 10).

Although corn-driers, particularly these more elaborate examples, are normally dated to the Late Roman period, that at Four Elms Roundabout (possibly adapted from an earlier structure) is thought to have been constructed in the mid-2nd century or earlier (ibid.). Springhead has also provided a number of structures identified as apparently early driers (Penn 1968, 179; Andrews 2011, 50, 52; Philp and Chenery 1997, 12-13). Even more anomalous is the association of drier 400061 at Springhead with an assemblage dominated by free-threshing wheat (Biddulph et al. 2011, 50): not only is the drier unusually early but free-threshing wheat is uncommon at this period and in any case does not need parching in order to release its grain.

This emphasises the need for caution in interpreting the few examples of environmental assemblages directly associated with these structures: six structures interpreted as possible crop-driers and three kilns/ovens which may have been used for similar purposes. Two of these are still at a preliminary stage of analysis, whilst a large sub-rectangular pit with traces of burning and carbonised seeds at Saltwood was unfortunately relatively poor in plant remains (Stevens 2006b, 7). The drier at Thurnham contained wheat grains and chaff, possibly representing the results of parching grain still enclosed in spikelets but perhaps more likely an indication that the deposit contained remnants of fuel (Smith and Davis 2006, 9). The drier at Northfleet likewise contained a mixture of cereal grain, chaff, germinated grain or elements thereof and weed seeds. The evidence from this and other contexts at Northfleet strongly suggests that grains destined for malt were both germinated and then heated (to arrest germination) in the spikelet (Stevens et al. 2011, 240; Smith 2011a, 110). Only the corn-drier at Swanscombe has so far been found to contain predominantly clean grain, suggesting that it was at an advanced stage of preparation and ready either for milling or storage. Smith and Davis (2006, 9) suggest that parching may have more commonly been used to harden grain for milling than for dehusking: Fenton (1978, 375) cites experimental evidence demonstrating that roasting has a dramatic effect on the efficiency with which wheat grains can be ground in a rotary quern, whilst Nesbitt and Samuel (1995, 48) cite a variety of studies which show that hulled wheats can be effectively dehusked without parching.

Whatever the uses to which corn-driers were put, Reynolds and Langley (1979, 41) are surely right in questioning their importance within the Late Roman agricultural economy.

As they point out, there are too few of them to indicate a response to a radical change whether in socio-economic conditions or in climate. In addition, they appear on villa sites at a time when domestic areas are being turned over to agricultural or industrial use (as at Thurnham, where the central room was converted into a smithy [Lawrence 2006, 103]) and sometimes themselves appear to take over former domestic space. This argues not so much for a widespread increase in agricultural production as perhaps a response to more unsettled times, the breakdown of centralised systems and the attempts of villa occupiers to maximise yields, to diversify and/or to become more self-sufficient.

The other question raised by the relatively small number of driers is – if they were used for malting (and in Kent firm evidence of this comes only from Northfleet) – where did malting take place in earlier periods? Malting ovens were clearly not a prerequisite; a traditional method for arresting germination in Scotland involved rolling hot stones in the grain and it has been suggested that the numerous burnt flints found in the courtyard area at Northfleet villa could derive from this process (Biddulph 2006, 224). Given the apparent scale of ale production at Northfleet it is otherwise surprising that it has only one, single-chambered malting oven. Malting may sometimes have been performed on an ad hoc basis; this is suggested by the occurrence of just two samples (one from a Late Iron Age pit, one from an Early Roman hearth) containing large quantities of germinated grain at Park Farm South-East (Stevens 2012).

8.3.4 Storage

8.3.4.i Storage pits?

The underground grain storage silos and associated special deposits so characteristic of central southern Britain in the Iron Age appear to be largely absent from Kent (although possibly not from Thanet (e.g. Thanet Earth, Plateau 8; Rady 2010; North Foreland, South Dumpton and Margate; Moody 2008, 123-126) and are generally considered anachronistic by the start of the period under discussion (e.g. Fowler 2002, 164). This makes this situation at Waterstone Park, Stone Castle (Haslam 2005) somewhat intriguing.

Here a large number of pits of Early Roman (1st century) date, associated with a contemporary field system, have been interpreted as pits for grain storage rather than for

rubbish on account of the suitable geology (chalk) and lack of evidence both for settlement in the immediate area or for above ground storage facilities (ibid., 82-89). There is no conclusive environmental evidence other than some grains of wheat and barley from a few pits, but the material cultural remains and animal bones recovered from many are highly suggestive of the special deposits characteristic of disused grain pits during the Early-Mid Iron Age. These include: quernstones; several pits with significant concentrations of horse bones (including a skull at the base of Pit 524); significant quantities of pottery in bottom fills; amphora sherds; complete/holed/miniature vessels and metallic finds including a possible Early Roman military sword scabbard.

Such structuring of deposits is now well-recognised from the Roman period (e.g. Fulford 2001) and need not be a conscious referencing of practices of several centuries earlier. It may be a simpler explanation that there was settlement in the immediate vicinity if not within the excavation area itself. This does not explain why these pits were dug or why some of them were clay-lined; the possibility that they were for grain storage must remain. Possible grain storage pits containing structured deposits have also been recorded from the adjacent Late Iron Age site to the south (Haslam 2009). Other potential grain storage pits have been noted near Peene, Newington (Rady 1989, 38-9; 1st -2nd century AD), Hillside, Gravesend (Philp and Chenery 1988; late 1st century BC – early 2nd century AD) and the Late Pre-Roman Farmstead at Farningham Hill (Philp 1984, 8-71). It is probably no coincidence that three of these sites are situated on the Chalk, meaning that dry conditions might be maintained. Peene appears, rather anomalously, to be situated on the Gault Clay which makes it a less likely candidate for the location of grain storage pits.

Following work by Reynolds (1974) it is generally stated that grain storage pits need to be sealed and would therefore be used only for the long term preservation of seed corn. This view has recently been challenged by van der Veen and Jones (2007) who cite ethnographic evidence suggesting that they were used instead to store surpluses. This makes more sense of the large numbers of potential storage pits at Waterstone Park although it is of course possible, if not probable, that pits were used for storage both of surpluses and of seed corn (perhaps barley for spring sowing and some wheat as an insurance against failure of a winter crop). They would not be suitable, however, for the storage of domestic supplies of grain needing to be accessed frequently.

8.3.4.ii Four-post structures

The four-post structures commonly interpreted as granaries (Fig. 8.8) are also not particularly commonly found in Kent. The present work has gathered evidence of four-post structures of Late Iron Age to Roman date from just 19 sites (Table 8.4). There are in addition a number of examples of earlier four-post structures of Early to Middle Iron Age date from various sites along the A2 Pepperhill to Cobham road widening scheme (Allen et al. 2012), the East Kent Access scheme (Oxford Wessex Archaeology 2011), Oxney (Parfitt 1981), Kemsley Fields, Sittingbourne (Mackinder 2006b) and potentially other sites missed in this survey of Late Iron Age to Roman sites.

Fig. 8.8 Reconstruction of four-post structure at Butser Ancient Farm (photograph from National Education Network http://gallery.nen.gov.uk/asset89825_14481-.html, accessed 08/09/13)

Their distribution (Fig. 8.9) is noticeably different from that of the corn-driers; the majority form a swathe across the centre of the county within the Holmesdale, Chartland and north east fringes of the Low Weald. This is almost undoubtedly biased by chronology as the four-posters are of Late Iron Age /Transitional/Early Roman date whereas the corn-driers, particularly the more substantial ones, are mostly Late Roman. There may also be an archaeological bias as the vast majority of the four-posters have been found in work conducted within the last 18 years in association with the construction of HS1, the East

HER No	Name	Type of site	No of 4-post structures	4 poster date	Circular buildings?	Dimensions in m^2 (where known*)
TQ 94 NE 56; NE 267; NE 270; NE 273; NE 266	Beechbrook Wood	(Settlement) with industrial enclosures	2	LIA-Mid-Roman	x	1.5 x 1.5; 1.8 x 1.8
TQ 94 NW 53	Brett's Sand Pit, Charing	Enclosed settlement	1	LIA/Transitional	x	1.05 x 1.09
None	East Kent Access Zone 10	Possible 'ladder settlement'	1	Transitional	x	
None	East Kent Access Zone 4	(?Enclosed) settlement	2	LIA	Possible	
None	East Kent Access Zone 6 Phase 4	"Village"	4	LIA	Yes	
None	East Kent Access Zone 6 Phase 5	"Village"	3	Early Roman	x	
TR 36 NE 539	Hamilton Close, Broadstairs	Associated with enclosure ditches/field boundaries	2	150-50 BC	x	
TQ 67 SE 68	Hillside	Probable farmstead site with enclosures and fields	2	1 x Transitional (replacing 6 poster); 1 x Early Roman	x	2.5 x 3.0
TQ 75 NE 376	Hockers Lane	Enclosed settlement	1	LIA	x	2.9-3.0 x 2.9-3.0
TQ 94 NE 233	Leda cottages	Enclosed settlement	2	LIA or Transitional	x	1.9 x 1.5; 1.9 x 1.75
TQ 65 NE 103	Leybourne area A	Enclosures; probably on edge of settlement	1	Transitional	x	2.6 x 2.6
TR 03 NE 66	Little Stock	Enclosed settlement	1	LIA	x	2.6 x 2.6
TR 03 NW 90	Park Farm East	Enclosed settlement	2/3	LIA	yes	1.8 x 2.2; 2 x 2.3; [1.8 x 2.0]
TQ 75 SE 128	Queen Elizabeth Square	Small, possibly enclosed agricultural settlement	2	Transitional	x	1.5 x 1.6; 1.5 x 2.2
TQ 85 NW 122	Snarkhurst Wood	Enclosed settlement	5	1 x LIA; 1 x Transitional; 3 x Early-Mid-Roman	x	1.2 x 1.5; 1.2 x 1.45; 1.15 x 1.75; 2.12 x 2.33; 2.6 x 2.95
TR 26 SW 90	South of Island Road, Westbere	Roadside settlement	2	Suggested IA but no firm dating		5 x 4
TR 23 NW 268	Terlingham III	Field system; possibly settlement	8	Implicitly Roman	But ritual??	2.6 x 2.6; 2.7 x 2.7;
TQ 75 NE 374	Thurnham Roman Villa	Villa	2	AD 20-60	yes	2.5 x 2.5
TR 03 NW 109	Waterbrook Farm, site A	Enclosed settlement	1	1st century	yes	2.3 x 1.5

Table 8.4 Four-post structures

* Where stated, measurements are mostly taken from the centres of postholes, but this is not consistent and in some cases method is not clear or measurements are approximate.
x = absent

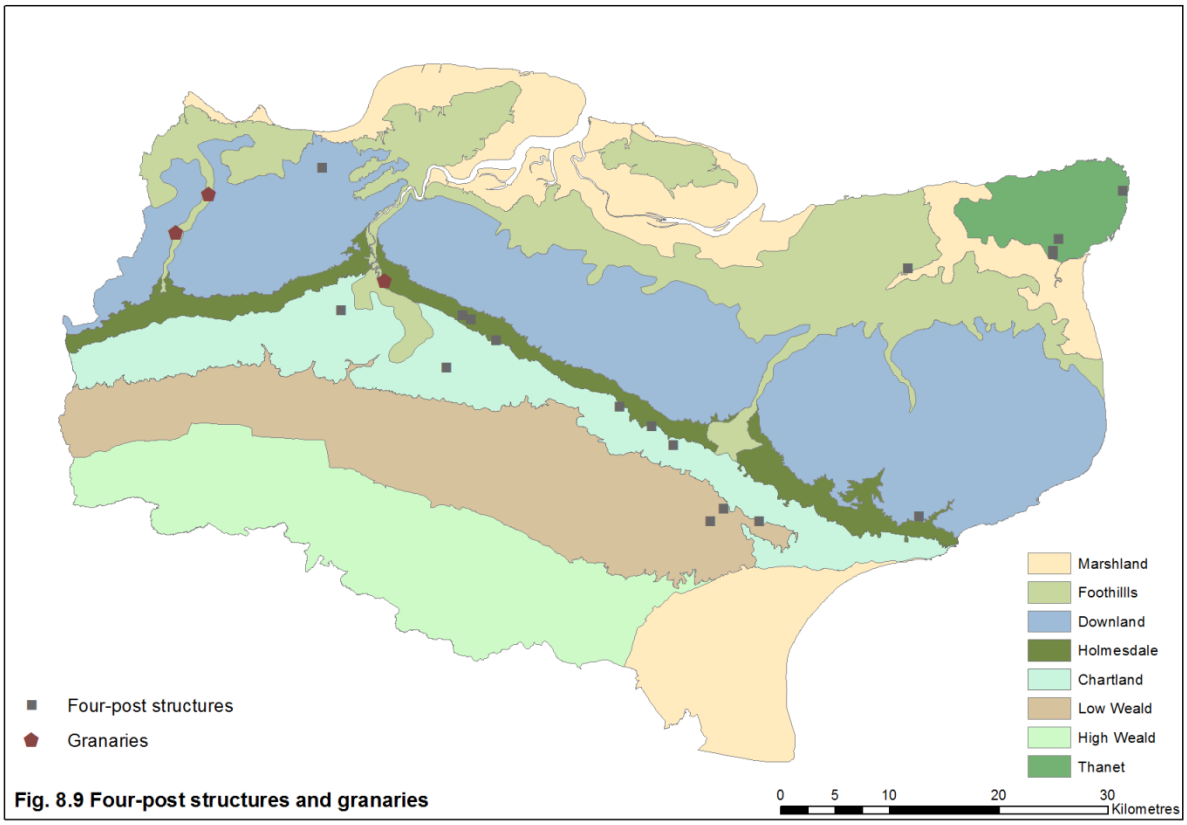


Fig. 8.9 Four-post structures and granaries

Kent Access road and major developments in the Ashford region. On the one hand (given the patterns already noted in Chapters 4 and 5) it would be not surprising if this distribution of features associated with the Iron Age to Early Roman period did favour the Chartland and Holmesdale at the expense of the Foothills, on the other it may be that relatively large areas excavated to current professional standards have been better at finding the evidence. It is relevant to recall, however, that archaeological work ahead of HS1 found no evidence for Late Iron Age occupation on the Downs.

Booth (2011, 275) notes that, rather strangely, circular and four-post structures rarely occur together in Kent. This is reflected in the data gathered here (Table 8.4), where a maximum of six sites have evidence for circular buildings in direct association with four-post structures and of these, that at Terlingham II, Hawkinge has been suggested to be a shrine rather than a domestic building (AOC Archaeology 2006, 28; 31). This may partly be a reflection of the apparent invisibility of so many of Kent's timber buildings but it may also reflect the zoning of activities. Nevertheless, if four-post structures were used as granaries (or indeed as storage for anything of value which needed to be kept dry) it would seem likely that they would require some kind of protection/supervision. They do often seem to

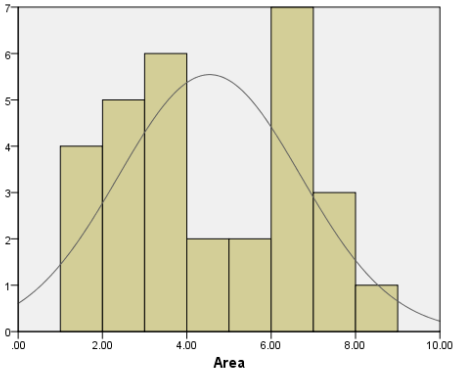
be located within enclosures, but if they were used for the storage of grain for everyday use it seems surprising that they were not located close to dwellings. It may be that they performed various different functions. Leda Cottages has produced the only environmental evidence associated with four-post structures (Diez 2006a, 6). This took the form of large assemblages of charred grain (mainly spelt) and chaff from the fills of the post-holes, thus most probably relating to activity after the structures had gone out of use.

Only one site with four-post structures (Thurnham) later developed into a villa, although just outside the study area, the Late Iron Age pre-villa phase at Keston produced evidence of ten such structures. Otherwise they are strongly associated with enclosure activity. At the Late Iron Age 'village' at Zone 6 of the East Kent Access road scheme (Phase 4b) a few individual compounds contained both ring gullies and evidence of four-post structures but at many other sites the nature of the enclosures is more ambiguous.

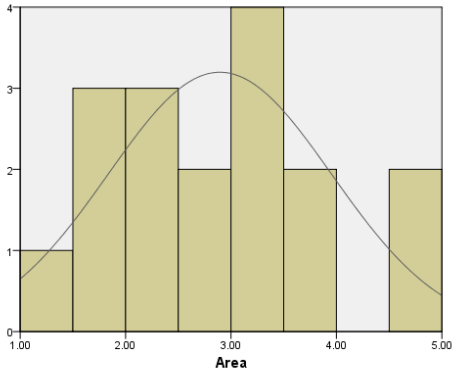
As noted by Booth for those encountered on the HS1 route, four-post structures vary considerably in size: discounting the exceptionally large examples from Westbere, approximate areas vary between 1.14 and 8.7 m^2 with a mean of 4.54m^2 (Table 8.5). This may be somewhat misleading, however, for when the sizes are plotted on a histogram against a normal distribution curve (Fig. 8.10), it suggests that there are in fact two distributions, of larger and smaller structures (roughly below and above 5m^2). Chronology does not seem to have much bearing on the sizes of the structures: although the largest mean is found in the Roman period, it is barely larger than that for the Late Iron Age and considerable variation is found at all periods: although the four-post structures at Snarkhurst Wood seem to grow larger over time, those at Terlingham III (admittedly not closely dated but all thought to be Early Roman) vary between 1.3 and 2.7m^2. Variation in size is not difficult to explain in terms of differing storage needs. Just why larger and smaller units should have been favoured over those of 4 to 6m^2 area is not clear: perhaps we are looking at two quite different types/uses of building.[vii] According to Cunliffe (2005, 411) the average length of such buildings in the Iron Age is 2.5-3.0m; the majority of Kentish examples are thus smaller than this.

	N	Minimum	Maximum	Mean	Std. Deviation
Whole dataset	30	1.14	8.70	4.5406	2.15827
Large	13	5.29	8.70	6.6938	0.94541
Small	17	1.14	4.94	2.8939	1.06037
LIA	6	1.80	8.70	4.9033	2.45655
LIA/Transitional	6	1.14	6.25	3.8791	2.01321
Transitional	7	1.74	7.50	3.8843	2.29389
Roman	11	1.69	7.67	5.1211	2.07218

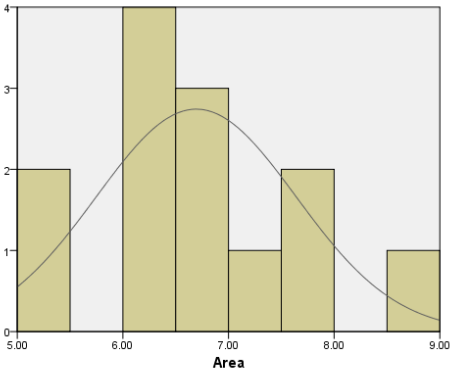
Table 8.5. Areas of four-post structures (m^2)



8.10a Areas of all 4-post structures (vertical axis = nos of examples) showing poor fit to normal distribution curve



8.10b Areas of 4-post structures with areas under $5m^2$ showing better fit to normal distribution curve



8.10c Areas of 4-post structures with areas over $5m^2$ also showing better fit to normal distribution curve

8.10 Areas of 4-post structures demonstrating division into two groups of larger and smaller structures

8.3.4.iii Granaries

In the Roman period, much larger, specialised structures for the storage of grain enter the record. As noted by Black (1987, 57) there are few of these in the south-east and Kent has only three clear examples, all variations of the type classified by Morris (1979) as of "military" type with floors raised on posts, pillars or dwarf stone walls. At least two (Eccles and Lullingstone) are associated with villas.

The smallest and earliest is that at Eccles (where possible military connections have already been noted; Detsicas 1965, 70-71). It is just 3.30 x 5.78m in size and dated to approximately AD 55-65. It had transverse sleeper walls for the support of a presumably wooden floor; remnants of a loading platform bore the imprints of wooden planks. It was superseded by the first bath house which severely truncated its remains.

Much more substantial and elaborate was the granary at Horton Kirby (Fig. 8.11; Philp and Mills 1991). This had a central hall with a floor supported on transverse sleeper walls which was surrounded by smaller rooms of various sizes; some of the latter also seem later to have been converted to granary use by the insertion of further sleeper walls. The main hall was 23.20 x 8.30m internally, giving an area of approximately 190m^2, not including the capacity of the aisle rooms. The associated pottery assemblage is dominated by 2nd to 3rd century wares. In its final phase (4), the building was almost totally demolished and replaced by a smaller structure with dry stone foundations and upright posts, a number of which cut through the original sleeper walls.

Making allowance for storage arrangements and gangways, Philp and Mills estimate that in Period 1 the granary might have held at least 280m^3 or280 tons of grain. The Period 3 alterations added perhaps another 80m^2 of storage space and capacity for perhaps another 150 tons of grain. Philp and Mills interpret this as representing an increase in area under cultivation (from some 280 acres to 430 acres) but it is by no means certain that the grain being stored was the product of a single estate.

The granary at Lullingstone (Fig. 8.12) was not built until the late 3rd century (possibly the last decade; Meates 1979, 116) and continued in use at least into the middle of the next century after which it was converted for other uses. It had a long main hall, divided into

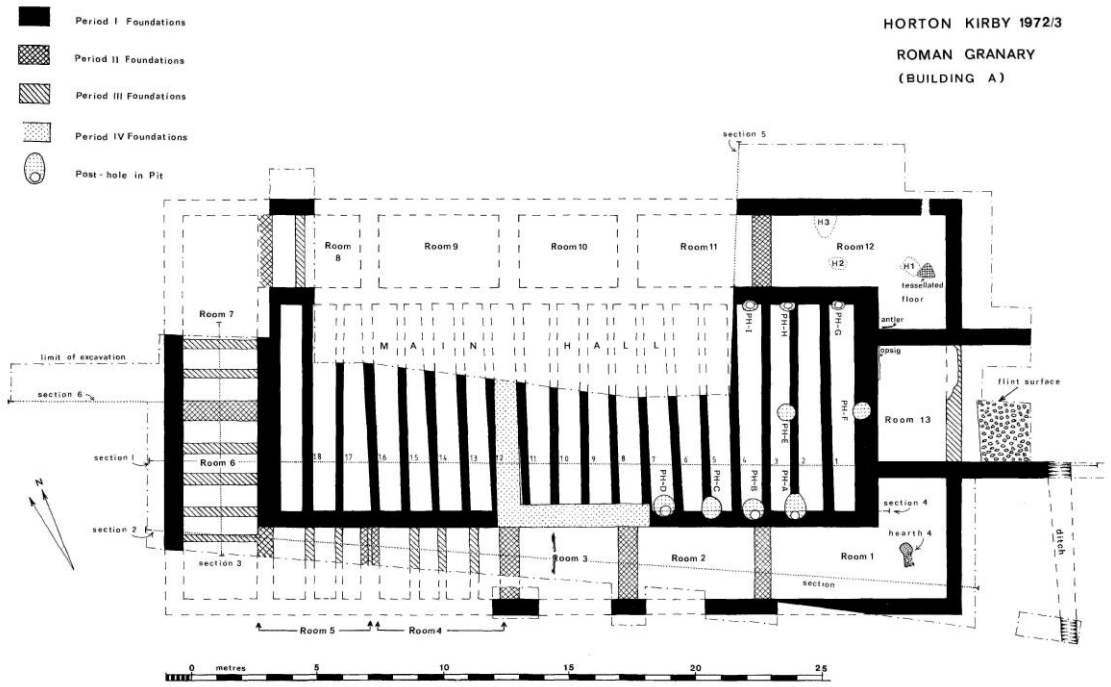


Fig. 8.11 Granary at Horton Kirby (adapted from Philp and Mills 1991, Fig. 3)

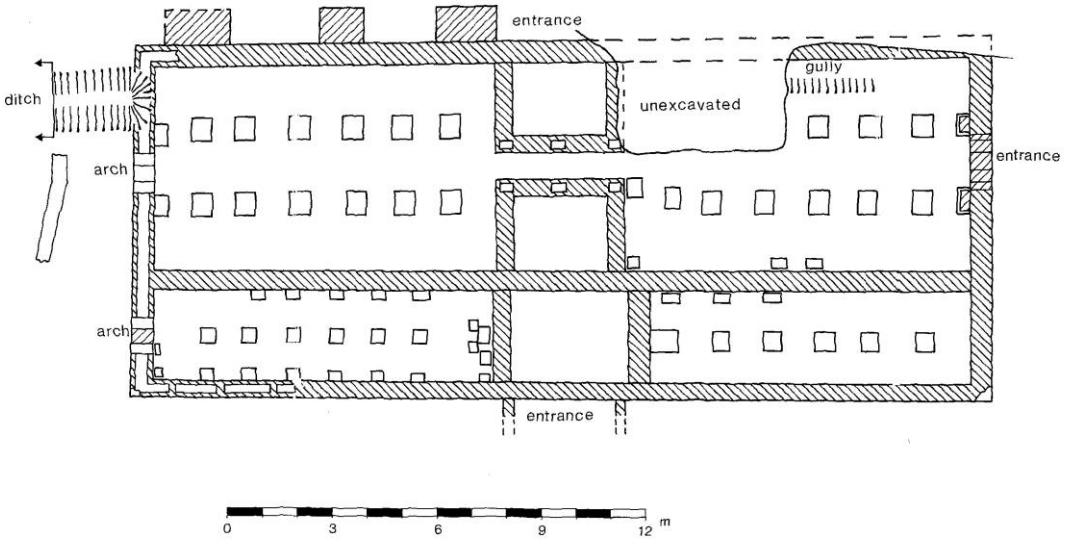


Fig. 8.12 Granary at Lullingstone Villa (adapted from Meates 1979, Fig. 27)

two compartments and two smaller rooms, either side of the entrance on the south (long) side of the building. The main hall was entered by an opposing door on the north side. The wooden floors of all three sections were supported on pilae and air circulation under the floor was achieved by the insertion of arches in the end walls. Measured from the plan the internal area of the four compartments is approximately 171m^2 which would give a capacity approaching, though not as high as that of the Phase 1 Horton Kirby granary.

As Black points out (1987, 58), granaries do not have to have a distinctive architectural form and it is quite possible that other buildings fulfilled the same function. Indeed Black classifies both the aisled building at Darenth (Philp 1973) and the building at Oliver Crescent, Farningham ("Farningham I"; Priest and Cumberland 1931) as granaries, both again of large capacity.

Grain may otherwise have been stored in the loft space of dwellings or ancillary buildings or in rooms integral to other buildings. Room 129 at Eccles, which was remodelled and given under-floor ventilation was suggested by Detsicas (1972, 105-6) to have provided storage for the grain dried in the adjacent putative corn-drier (Room 124). Clearly these interpretations, which are dependent on each other, are not confirmed. Cellars may also have been used, although the damp conditions in some of these (e.g. springs at Burham, Faversham and Lullingstone) would preclude this. Nevertheless, the cellar at Hartlip was found to contain several bushels of charred wheat (Hasted 1798, 15-24), a situation paralleled at Park Street, St Albans, where a heap of charred wheat and barley was slanted in such a way as to suggest that it was being stored in grain bags when the building was destroyed by fire (O'Neill, 1945, 57).

The large granaries are situated on the Darent; Black (1987, 57) suggests that they reflect the possibility that west Kent farmers were close enough to London to be able to take full advantage of access to its permanent grain market, being able to store grain until they could sell at the best price. He contrasts this with the small facilities at Eccles - no less a villa in status - suggesting that here and at other villas with lesser storage facilities, grain would be sent immediately to market with only seed grain and that required for local consumption retained on site. This may well be the case, but it is also possible that the large granaries (particularly with their 'military' architecture) represent something more official: perhaps the villa owners were *decuriones* involved in collecting the *annona*, or were otherwise involved in supplying grain for the military or administering the grain market.

It is not clear whether there is a chronological overlap in use between the Horton Kirby and Lullingstone granaries, although the latter was certainly constructed later and its relatively brief life seems mainly to have been after the *floruit* of the Horton Kirby building. The enlarging of the Horton Kirby granary's capacity perhaps coincides with the 3rd century crisis during which tax in kind became more common; the Lullingstone granary was certainly constructed in a period when this system was dominant (Faulkner 2000, 112), perhaps it was even a response to Diocletian's tax reforms. These developments may mark the changing fortunes of individual landowners, of groups of farmers bringing their harvests to a centralised store, or of the economy itself.

It has been estimated that between a quarter and a third of gross yields might have been exacted in tax (Esmonde Cleary 1989, 9). For those who did not own their land, rent would have to be added, meaning that perhaps as little as half a farmer's produce could be retained for the use of the family or private sale/barter. This simply serves to emphasise the necessity of creating a surplus - wherever that surplus was stored – and thus the necessity for storage facilities.

8.3.5 Milling

The final milling of grain might take place either at a domestic level or on a larger, commercial basis. Finds of rotary/oscillatory quernstones of various types and lithologies are almost ubiquitous on Roman domestic sites and attest, as does the environmental evidence cited above, to the day to day preparation of grain for local consumption. This was necessary as wholewheat flour, which contains the germ of the wheat, does not keep well, particularly in the long term. Grinding grain using a hand mill is an arduous task: Cool (2006, 73) cites ethnographic observations suggesting that an hour's work might produce between 1.5 and 1.8 kg of flour. Based on her calculations, it appears that this is somewhat more than the daily allowance for one soldier. Even allowing for the fact that soldiers' rations were likely to be generous compared to the expectations of the normal rural worker, it would clearly take many hours to grind by hand sufficient flour for the daily needs of a family or the workers on a farm.

Evidence for milling on a larger scale is less common (Table 8.6; Fig. 8.13). The best example derives from Ickham, where the perhaps substantial roadside settlement provided

evidence of four watermills. The earliest of these dated to the early 3rd century, the latest possibly continuing in use into the 5th century. The settlement also provided evidence for flax production and processing, leather working and metal working and has been suggested, particularly in view of its longevity, to have formed part of the large estate of a family holding a portfolio of commercial interests (Bennett 2010, 344). Evidence for some other watermills in Kent is more speculative. A substantial water channel at Darenth (Philp 1973, 78, 89) was likened to the channels at Ickham and given the presence of millstones on site might have been a mill leat. Building foundations found close to the river Darent at Eynsford in 1970 (Meates 1971) were speculated to be the remains of a water mill on the basis of a feature interpreted as a water diversion. Spain (1984a, 119) presents circumstantial evidence for another at Leeds where a millstone, Roman finds and a possible flint-and-stone wall have been found in a well-graded, ravine-like section of a tributary of the Len.

The foundation of a large corn mill has been claimed by Wilkinson at Bax Farm (2012, 410).[viii] A rare find of part of a donkey millstone was made at Canterbury (Frere and Stow 1983, 53) and interpreted as evidence of a nearby bakery. A water-driven mill may have been in operation at Westhawk Farm, where finds include at least three Millstone Grit millstones as well as possible examples in lava (Roe 2008) whilst at Springhead (Shaffrey 2011, 364) the distribution of Millstone Grit millstones suggests that a mill was located near the Sanctuary site, rather than the roadside settlement.

Millstones are less common finds than quernstones and have been confirmed from fewer than 20 sites in Kent. Six of these are villas; milling may have been practised on these sites on a commercial basis, on the other hand it may simply have been a more efficient method of providing for the owner's family and estate workers. In most cases power was probably provided by animals. They have also been recovered from a number of sites with cellared buildings on Thanet. At Stone Road, Broadstairs (Moody 2005), one of these buildings showed evident use as a bakery; small finds and pottery evidence from the same contexts as the millstones (the unusual occurrence of Dorset Black-Burnished ware) suggest milling and baking might be associated with late 3rd century military activity on the site. Fragmentary millstones have also been found on several zones of the East Kent Access road scheme, possibly robbed from elsewhere as these items were frequently reworked and reused.

HER No	Site	Site type	Structural evidence	Millstone	Millstone lithology
TQ 96 SW 191	Bax Farm	Villa	Concrete base	x	n/a
TR 36 NE 450	Bleak House, Broadstairs	Cellared buildings		Confirmed	Millstone Grit
TR 15 NE 282	Canterbury	Town	Remains of wooden building	Donkey millstone	Kentish Rag
TQ 57 SE 30	Darenth Villa	Villa	Water channel	Confirmed	Millstone Grit
None	East Kent Access Zone 10	Unknown		Probable; too fragmentary to confirm	Millstone Grit
None	East Kent Access Zone 6	"Village"		Confirmed	Millstone Grit
None	East Kent Access Zone 7	Unknown		Confirmed	Millstone Grit
TQ 56 NW 47	Eynsford	Possible watermill	"Massive" foundations	x	n/a
TQ 65 SW 162	Fairlawn villa	Villa		Confirmed	White sandstone
TQ 56 NW 15 & 14	Farningham I	Villa		Confirmed	Unknown
TQ 67 SW 549	Hazells Road	Field system and corn-drier		Probable; too fragmentary to confirm	Millstone Grit
TR 25 NW 136	Ickham	Watermills; roadside settlement	Foundations and water channels	Confirmed	Greensand; Millstone Grit; Tertiary sandstone
TQ 96 SE 7	Judd's Hill, probable Durolevum	Roadside settlement		Confirmed	Lava
TQ 85 SW 35	Leeds	Possible watermill	wall	Confirmed	Kentish Rag
TR 26 NE 24	Minnis Bay	Pits/shafts/wells with votive deposits		TBC	Sandstone
TR 36 SW 67	Minster Villa	Villa		TBC	Millstone Grit
TR 36 NW 238-9	Monkton	Trackside settlement		Probable; too fragmentary to confirm	Millstone Grit
TQ 67 SW 38	Northfleet Villa	Villa		Confirmed	Millstone Grit
TQ 55 NW 2	Otford, the Charne	Byre		Probable; no measurements	Unknown
TQ 67 SW 6	Springhead	Roadside settlement & sanctuary		Confirmed	Millstone Grit; lava; ?Greensand;
TQ 76 SW 23	Snodland Villa	Villa		Probable; too fragmentary to confirm	?Millstone Grit
TR 36 NE 543	Stone Road, Broadstairs	Bakery? Possible military connections		Confirmed	?Millstone Grit
TQ 75 NE 28	The Mount	Villa		Confirmed	Millstone Grit
TQ 75 NE 374	Thurnham Roman Villa	Villa		Probable; too fragmentary to confirm	Millstone Grit
TR 36 NE 449	Upton House, Vale Road, Broadstairs	Cellared building?		Confirmed	Millstone Grit
TR 04 SW 117	Westhawk Farm	Roadside settlement		Confirmed	Millstone Grit; lava
TR 25 NW 14	Wingham villa	Villa		Confirmed	Unknown

Table 8.6 Evidence for milling
x = absent

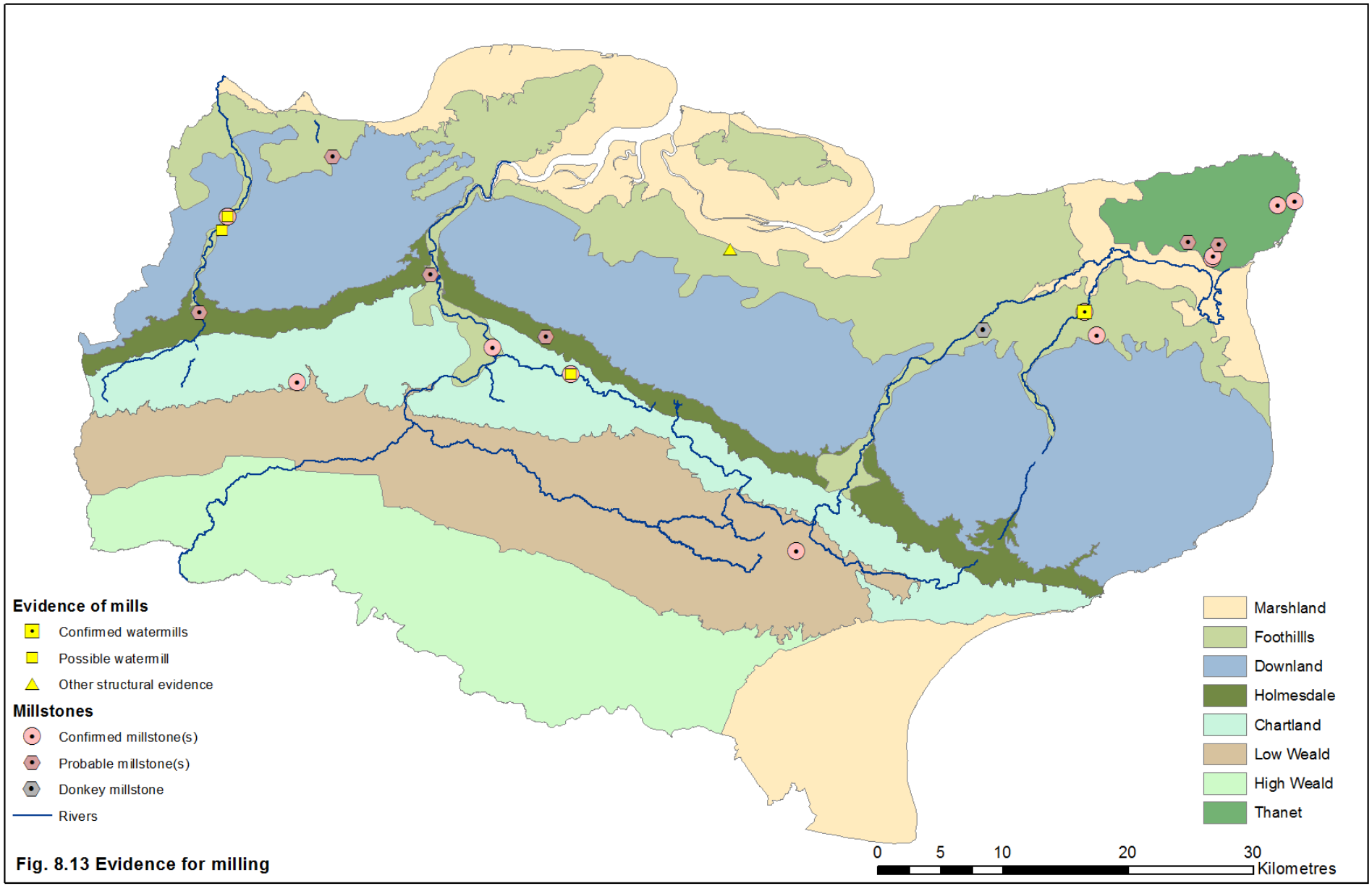


Fig. 8.13 Evidence for milling

Interestingly, finds of quernstones and millstones in general seem to be notably absent from a number of villas in the Darent Valley associated with large granaries (Lullingstone, Farningham, Horton Kirby). This perhaps reinforces the view that these granaries were for the collection and temporary storage of grain rather than a reflection of large scale agricultural processing on site. The exception is Darenth which produced fragments of at least three large millstones (Philp 1973, 143) in addition to the water channel interpreted as a possible leat (Philp 1984, 89).

At Ickham, millstones were most commonly made from Greensand, implicitly (though not stated) from the Lower Greensand Folkestone Beds. This is unusual: elsewhere in Kent millstones are most frequently manufactured from Millstone Grit and hence imported to Kent. They also occur in Niedermendig lava, but this is particularly friable and often does not survive well: just one fragment from Westhawk Farm was large enough to reconstruct as a possible millstone (Roe 2008). Nevertheless, a fragment of a stone estimated to be 3ft in diameter was also noted during a watching brief at the probable site of Durolevum (Philp 1976, 63).

It should be noted that Roman millstones were relatively small with diameters ranging from as little as 48 cm up to 109 cm with the majority falling between 55 and 85 cm (Wikander 2008, 148). Most specialists use 55 cm as the dividing line between querns and millstones, although others prefer 60cm (R. Shaffrey pers. comm.).

8.4 Animal husbandry

The range of evidence for animal husbandry is somewhat smaller than that for arable crops and consists primarily of animal bone. Few buildings in Britain have been securely attested as stock sheds. Morris (1979, 47) suggests a number of reasons for this: such buildings may not be architecturally distinguishable from other agricultural buildings; they may be outside the excavated areas of villas, they may have been constructed in such a way as to have left no archaeological remains or they may simply not have been found necessary. Late Iron Age and Roman period cattle were hardier than modern breeds: the Dexter, believed to be very similar to the Celtic shorthorn is described by Reynolds (1995, 188) as tough, powerful and capable of thriving on relatively poor pasture in challenging conditions. Given what is known of the climate of Roman Britain and the availability of grazing (both woodland and

field) and fodder, Morris (1979, 49) suggests that is unlikely that cattle housing was general in Iron Age or Romano- British agriculture except for housing oxen during the ploughing season. She posits that classical writers such as Columella who describe cattle housing (*De re rustica* 1.6.4) were writing against the background of the Italian climate where dry summers limited crop growth and grazing was in short supply, hence animals were brought in for feeding. Nevertheless, byre-houses were of course ubiquitous in parts of the Low Countries (e.g. Roymans 2004, 25; Groot 2008, 24; De Clerq 2011, 245).

8.4.1 Structures associated with animal husbandry

A handful of buildings in Kent have been associated with animal husbandry. These include a potential byre at Otford (Meates 1954). This was a post built structure whose flint and cobble floor had a deep gully and which was associated with finds of horn cores. A detached outbuilding at Cobham Park villa (Tester 1961) has been suggested to be cattle housing in the absence of domestic or metalworking debris. The little that has been recovered of the presumed villa at Wilmington (Dartford District Archaeological Group 1986) has been interpreted as a stockyard with stables or cow byres. This is by no means certain, but it answers well to Columella's description of a place "partly covered, partly open to the sky, and surrounded by high walls so that the animals may rest in one place in winter, in another in summer, without being attacked by wild beasts" (*de Re Rustica* 1.6.4.). Chemical and micromorphological analysis of darkened layers underlying the aisled building at The Mount, Maidstone (Houliston 1999, 82) suggested the possibility that this structure may have been used as a byre or barn for housing livestock.

We have seen (Chapter 7) that Kent possesses a significant number of aisled buildings and post- built structures which may also have been utilised if livestock housing were required.

8.4.2 Droveways

A number of droveways have been identified, but these are not always easy to date and, owing to the limited nature of excavation, are found only as fragments of much larger features. The Early Iron Age droveway at Manston Road remained in use for several centuries until it formed the basis for a new field system in the Transitional period (see

above). This contrasts with the situation at Snodland (Dawkes 2009a, 6) where a late prehistoric droveway had clearly gone out of use and silted up before being cut by a Transitional period boundary ditch. At Waterstone Park and Eureka Business Park (see above) droveways were later features, superseding earlier field systems.

The existence of a droveway suggests the significant and repeated movement of herds through the landscape and may represent the practice of transhumance (as in later periods), the movement of stock from outfield to infield as proposed by Applebaum (1972, 208) or the driving of herds and flocks as meat on the hoof to urban centres.

8.4.3 Animal bone

Animal bones, like charred plant remains, are subject to depositional and taphonomic biases but they present a different set of challenges. The record for cereal grain crops is biased by depositional factors in that, in Britain at least, charred remains form the bulk of the evidence; these will survive under many different environmental conditions. The representations of different taxa are skewed by the frequency with which each came into contact with fire and assemblages mostly represent the use of waste processing products as fuel and are therefore dissociated from the context in which they were formed.

Bone, however, is much more subject to post-depositional biases. Under the right circumstances animal bone from any species discarded at any stage from primary butchery to post-consumption will survive, although the acidic soils found in much of Kent are not conducive to this. This is reflected in the fact that animal bone assemblages could only be examined at ten HS1 sites of Late Iron Age and/or Roman date (Booth 2011, 296). The Wealden Clays are particularly unfavourable to bone survival: this leads to an absence of data from the sites on the Hadlow to High Halden pipeline, a relatively small assemblage from Westhawk Farm and very poor preservation of bone at Brisley Farm. Nevertheless, quantified datasets now exist for approximately 30 sites/interventions[ix] in Kent.

The interpretation of animal bone assemblages is complex and it is difficult to compare the relative importance of different domesticated species to the economies of sites. Cattle bones, being more robust, are more likely to survive than those of sheep/goats or pigs. Likewise, the bones of mature animals are likely to survive better than those of juveniles.

A number of quantification methods are used: minimum number of individuals (MNI), number of identifiable specimens (NISP) and bone weight (BW). Each of these has its own biases: for instance Marshall and Pilgrim (1993) found that MNI was a less effective method for quantifying fragmented assemblages than NISP. On the other hand, NISP probably over-represents large species which require more butchery, resulting in greater fragmentation (Bendrey 2008, 235). Neither NISP nor MNI on their own take into account the different sizes of animals and the consequent difference in meat yield per carcass. The use of different methods of quantification can make inter-site comparison difficult and for this reason no summary chart has been attempted. Nevertheless, a number of patterns emerge.[x]

8.4.3.i Cattle

Cattle are multi-purpose beasts, providing meat, milk and secondary products such as hide and horn as well as being the main source of traction in the Iron Age and Roman periods. This is reflected in the nature of many assemblages where bones suggest that animals were slaughtered at a range of ages. Where information is available, the majority of cattle seem to have been slaughtered as mature or even aged animals, suggesting that they had been kept for dairying and/or traction. On several sites (e.g. Northfleet Villa; Grimm and Worley 2011) the latter was suggested by pathological bone changes. The presence of infant or foetal bones in a number of assemblages (including Monkton, Northfleet, Thurnham, Swanscombe, Tollgate (A2) and the Weatherlees-Margate-Broadstairs wastewater pipeline, hereafter the 'Margate pipeline') indicate that cattle were bred on site, the culling of calves implying dairying.

Springhead Roadside Settlement differed from this pattern with an assemblage consisting entirely of animals of prime meat bearing age. All parts of the skeleton are represented, suggesting that here meat was brought in on the hoof (Grimm and Worley 2011). Roman-period assemblages from the Margate pipeline show a predominance of front limbs, suggesting that the prime hind joints may have been traded out of the area, perhaps to the forts of Reculver, Richborough or Dover or inland to Canterbury (Grimm 2009, 16).

8.4.3.ii Sheep/goats[xi]

Sheep are again multi-purpose beasts, providing meat, milk, wool, hide and horn. As with cattle, a range of ages is typically found, with an emphasis on older animals indicating that these had been kept into maturity to provide milk and/or wool. On the Margate pipeline, approximately two thirds of sheep were slaughtered by the age of three: seemingly a combination of safeguarding milk production and the culling of animals not suitable for breeding or with inferior fleeces. Around a third were allowed to live well into maturity; virtually none were despatched between the ages of three and five (Grimm 2009, 9). A similar pattern seems to have existed at Monkton, although here a higher proportion of animals were killed between the ages of three and six (Bendrey 2008, Fig. 2/75). Low numbers of very young animals from both sites might suggest that these were being preferentially exported to urban centres. Canterbury Castle (the only truly urban Roman period assemblage from Kent; King 1982, 200; Bendrey 2008 Fig. 2/90) appears to have a significantly higher proportion of animals aged below six months. On the Margate Pipeline a possible bias towards forelimbs was noted, suggesting that, as with cattle the largest joints may have been traded.

8.4.3.iii Pigs

Unlike sheep and cattle, pigs are generally kept for meat alone. On the majority of sites, pig bones form only a very small proportion of the assemblage; most display a bias towards younger animals with just a minority kept into maturity, presumably as breeding stock. It is possible that pigs are under-represented: as the majority were slaughtered young, their bones may have survived less well. Alternatively, young animals may have been sold in the form of meat on the hoof to urban centres: at Canterbury Castle (King 1982, Table 1) numbers of pig bones approached those of sheep in Phases I-III (AD 60-150) before slightly overtaking them in Phase IV (AD 150-400). Although the pig bone assemblage was smaller in size on the Margate Pipeline, it is possible that the same imbalance between front and hind legs noted for cattle and sheep was present. Pigs occur in larger numbers on various higher status Late Iron Age sites in the south east (usually *oppida/*showing trade links with Gaul) where they are interpreted as an emulation of elite Gaulish practice, which itself copied Mediterranean preferences (King 1991, 16; 1999). This pattern does not seem to

have been observed in Kent, except perhaps in the Late Iron Age assemblage at the Springhead Sanctuary (Grimm and Worley 2011, 50) and just possibly at Thurnham Villa, where pig is well represented in the Late Iron Age and Early Roman assemblages (Kitch and Hamilton-Dyer 2006, 25) although the Late Iron Age assemblage may be distorted by its small size.

8.4.3.iv Equids

Equid bones (the majority probably horses, but possibly including donkeys and/or hybrids) are present in the majority of assemblages but normally at a low level. There is some dispute as to whether horsemeat was eaten. King (1978, 225) points out that horse bones are rare in Roman period urban deposits, suggesting the idea that horse meat was not regularly consumed. Grant (1989, 145) notes that at least some of the cut marks sometimes encountered on horse bones relate to skinning rather than the removal of meat. Signs of butchery are rare on horse bones from Kent; a couple of examples were noted at Northfleet Villa (Grimm and Worley 2011, 48) one of which was thought to relate to dismembering the carcass, something that may have been desirable whether or not the animal was consumed. Nevertheless, Grimm (2009, 11) and Bendrey (2008) both feel that the fragmentation of the equid bone assemblages on the Margate Pipeline and at Monkton respectively indicate that horse meat was consumed.

King (ibid.) found that horses were not particularly common on Roman sites in general. These low numbers contrast with the apparent importance of the horse to the Late Iron Age elites (Creighton 2000, 14-21) and may be a consequence of the demise of Creighton's hypothesised "warrior bands". Although the assemblage is poorly preserved, there is some indication that horse remains were given special treatment at Brisley Farm in the Middle/Late Iron Age (Ayton 2013, 345) as they certainly were in the 1st century deposits at Waterstone Park mentioned above (Yeomans 2005). As cattle were the main source of traction, horses were probably reserved for riding (Grant 1989, 145): in a rural context this was perhaps more in the context of rounding up free ranging and transhumant herds (Applebaum 1972, 218) than as a general means of transport. A *relatively* high number of horse bones at Snodland Villa (third in number after cattle and sheep) has been suggested to be indicative of possible military connections (Driver 2009, 68).

Pathology indicative of heavy riding/traction has been noted at Northfleet Villa (Grimm and Worley 2011, 48), W Northumberland Bottom WNB 98 (Askew 2006, 27) and from the A2/A282 improvements (Strid 2011b, 154).

8.4.3.v Dogs

Remains of dogs, of various sizes and conformations, occur, usually in low numbers, on almost all sites with animal bone assemblages. Whilst they may not be farm animals in the sense of the larger species discussed above, they undoubtedly played key roles in rural settlements. The variety of conformations suggests that by this period, animals were being deliberately bred for different purposes and we might imagine that in addition to hunting and guarding duties, these might, as now, include aiding farmers to round up animals. The small animals usually dismissed as pets might also, like the modern Jack Russell, have had a role in controlling vermin.

Dogs are also evidenced in the form of teeth marks on the bones of other domesticates. Whilst one often gains the impression that this indicates butchered remains being left lying around sites in a rather untidy manner we might also envisage a) that the remains of carcasses were deliberately fed to the community's dogs (indeed were probably their main source of food) and b) that dogs, by stripping the remaining flesh from discarded bones, were being utilised to maintain a degree of hygiene and discourage less welcome scavengers who might be attracted to a dump of rotting remains.

8.4.3.vi Domestic fowl

Although the domestic fowl was known in Late Iron Age Britain, it does not seem to have been consumed (Maltby 1981, 161). In the Roman period, it forms a not infrequent component of burial assemblages, in addition to (the male at least) being a sacrificial animal (Parker 1988, 206). They appear to be much less frequently found on domestic sites, although this may partly be for taphonomic reasons and/or problems of identification. At Springhead, the highest concentration of fowl bones derived from the Mid Roman Sanctuary complex (including a ritual shaft; Grimm and Worley 2011, Table 10). At Pepper

Hill Roman Cemetery (Kitch 2006a, Table 4) up to 14 of 52 cremated deposits containing animal bone may have included domestic fowl.

Perhaps the most that can be said is that chickens were kept on rural sites but apparently in small numbers. The apparent Iron Age taboo on consumption may have persisted, excepting perhaps on ritual or ceremonial occasions.[xii]

8.4.4 Proportions of main domestic species represented

Cattle bones predominate in approximately two thirds of the animal bone assemblages. King (1978; 1999, 178-80) has demonstrated that the relative proportions of the three main domestic species (cattle, sheep and pig) are related to type site and period. In general there is a decrease over time in the proportion of sheep (the dominant species of the Iron Age) in favour of cattle and pig and a differentiation between more "romanised" (King's term) sites (villa, roadside settlements, towns and forts) where sheep form a smaller part of the assemblage and rural sites where they are more frequent. King regards a cut-off value of 30% for sheep as a useful indicator of these trends. It is worth stating that even when sheep bones predominate by NISP, beef may have formed the majority of the meat consumed, owing to the relative sizes and meat-bearing characteristics of the two taxa. Few assemblages from Kent, however, are as large as the NISP>300 which Hambleton (2007, 39) regards as a reliable sample size and, owing in general to a scarcity of pig bones, none have the ideal of NISP>100 for all three species.

Table 8.7, divided between assemblages above and below NISP>300, shows the percentage of sheep[xiii] in relation to cattle and pig from all assemblages for which it has been feasible to calculate this. Percentages above 30 have been shown in bold. It is likely that many of the results at the lower end of the table are distorted by small assemblage size; nevertheless, there are some interesting results from the larger assemblages.

Nine of the 17 NISP>300 assemblages (and five of the six largest) contain over 30% sheep. These include all assemblages, both Late Iron Age and Roman, from Springhead Sanctuary and Springhead Roadside Settlement (Grimm and Worley 2011). The figures for Springhead may be a reflection of continuing cultural traditions, although high numbers of sheep/goat are characteristic of a number of temple sites and these do not necessarily refer back to pre-existing Iron Age customs (King 2007, 357-9). A change in cult practice may be

Site	Reference	Period	% Sheep	Assemblage size (NISP)
Springhead sanctuary (HS1)	Grimm and Worley 2011	LIA	**37**	2446
Springhead sanctuary (HS1)	Grimm and Worley 2011	MR	**46**	2222
Brisley Farm	Ayton 2013	LIA aggregated	21	2127
Springhead roadside settlement (HS1)	Grimm and Worley 2011	ER	**55**	2069
EKA 6	Strid 2011a	Roman	**48**	1803
EKA 6	Strid 2011a	IA	**39**	1466
Monkton	Bendrey 2008	Roman	**55**	1351
Springhead sanctuary (HS1)	Grimm and Worley 2011	ER	**46**	867
Snodland (ASE 2008 excavation)	Driver 2009	LR1	25	829
Brisley Farm	Ayton 2013	Roman aggregated (mainly phase 1 = ER)	16	699
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	Transitional	**41**	695
Snodland (ASE 2008 excavation)	Driver 2009	LR2	23	682
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	ER	27	460
Springhead Roadside settlement (HS1)	Grimm and Worley 2011	MR	**36**	415
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	ER	**41**	385
Northfleet Villa	Grimm and Worley 2011	LR	28	334
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	LIA	**50**	330
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	MR aggregated	28	308

Table 8.7 (a) Percentage of sheep as a proportion of three main domesticates (cattle, sheep, pig), assemblages of NISP>300

Site	Reference	Period	% sheep	Assemblage size (NISP)
Springhead sanctuary (HS1)	Grimm and Worley 2011	LR	**44**	291
Tollgate (A2; AreaA, L, B, D)	Bates et al. 2012	ER	**49**	270
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	Roman aggregated	11	269
Springhead Roadside settlement (HS1)	Grimm and Worley 2011	LR	**31**	252
Ickham	Palmer and Powell 2010	LR	**35**	229
A2/A282 Improvements	Strid 2011b	Transitional	**70**	223
Snodland (ASE 2008 excavation)	Driver 2009	E-MR aggregated	27	206
Northfleet Villa	Grimm and Worley 2011	MR	27	188
A2/A282 Improvements	Strid 2011b	M-LR aggregated	23	178
Westhawk Farm	Charles 2008	E-MR	18	154
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	LIA	**41**	140
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	LR	24	139
The Mount (1994 excavation)	Bendrey 1999	MR aggregated	29	135
Hockers Lane	Kitch and Hamilton-Dyer 2006	LIA	**47**	133
Upton house, Broadstairs	Moody 2007	LIA-LR aggregated	17	115
Whitehill Road	Kitch 2006b	ER	**30**	95
Bower Rd (C2 field system)	Kitch 2006c	MR	19	80
Swanscombe	Reilly 2010	M-LR aggregated	**37**	67
Hazells Road	Kitch 2006d	LR	**35**	62
Farningham-Hadlow Pipeline MT01	Wessex Archaeology 2010*	Roman	10	60
Stone Road, Broadstairs	Gidney and Moody 2005	ER	**45**	58
Stone Road, Broadstairs	Gidney and Moody 2005	Transitional-ER	**70**	54
Fairlawn Villa Plaxtol	Wessex Archaeology 2010*	Roman (implicitly late)	12	49
Little Stock Farm	Kitch 2006e	LIA	**49**	39
Bower Rd LC2-MC3	Kitch 2006c	MR	30	37
Farningham-Hadlow Pipeline MT01	Wessex Archaeology 2010*	Transitional	22	36
Tollgate (HS1)	Bates et al. 2012	ER	**79**	34
Bleak House, Broadstairs	Moody 2010a	E-MR aggregated	**39**	33
Stone Road, Broadstairs	Gidney and Moody 2005	E-LIA	**37**	24
Northfleet Villa	Grimm and Worley 2011	ER	**38**	24
The Mount (1994 excavation)	Bendrey 1999	LR	**55**	20
Hockers Lane	Kitch and Hamilton-Dyer 2006	ER	**53**	19
Saltwood	Nicholson and Worley 2006	Transitional	29	17
Northumberland Bottom Zone 330 Area B	Kitch 2006d	ER	**43**	14
Bower Rd	Kitch 2006c	ER	**72**	11
Stone Road, Broadstairs	Gidney and Moody 2005	LR2	**36**	11
Stone Road, Broadstairs	Gidney and Moody 2005	E-MR	**67**	9
Stone Road, Broadstairs	Gidney and Moody 2005	LR1	**87**	7

* Unattributed

Table 8.7 (b) Percentage of sheep as a proportion of three main domesticates (cattle, sheep, pig), assemblages of NISP<300

indicated by an increase in the proportion of young lambs within the Early Roman assemblage at the Sanctuary complex (though not the town). The high proportion of sheep bones continues into the Late Roman period in the roadside settlement (44% of assemblage of 291).

Conversely, high figures for sheep are not recorded from the Late Iron Age assemblages at Brisley Farm (Ayton 2013). This may be for one or more of a number of reasons: the record may be distorted by the poor preservation of the assemblage (which consequently contained a high proportion of cattle and horse teeth) or by the presence of ritualistic deposits of cattle and horse remains; on the other hand the Low Wealden landscape may also have been more suitable for cattle than for sheep husbandry.

At Tollgate (A2; Bates et al. 2012), numbers of sheep appear to increase from the Middle Iron Age through to the Early Roman period. This fits with Albarella's findings that sheep increased in importance in certain regions in the Late Iron Age (2007, 394) although the situation he describes is far from uniform. A similar increase seems to be indicated at East Kent Access Zone 6 where the proportion of sheep in the Roman period appears considerably larger than that for the Iron Age (Strid 2011a, 168, Table 18.8).

The highest percentage of sheep from a large rural assemblage (55% NISP, equivalent to that from the Springhead Early Roman phase) comes from the Roman settlement at Monkton (Bendrey 2008) where activity was principally of 2nd to 3rd century date (Hicks 2008, 273). Even here, it is suggested that beef probably formed a larger part of the diet (Bendrey 2008, 223). Other particularly large percentages come from the Late Iron Age (50%) and Transitional (41%) phases of the Margate pipeline (sites aggregated; Grimm 2009) and from the Early Roman phase of Thurnham Villa (41%; Kitch and Hamilton-Dyer 2006).

King (1978, 211) suggests that the trend towards smaller proportions of sheep over time was probably connected with the location of later sites in areas more conducive to cattle and pig herding or an increase in the amount of arable land (which implicitly would favour an increase in the number of draft animals (c.f. Luff 1993, 129). Grant (1989, 137) finds this is a trend which has its origins in the later Iron Age, associating it with the movement of population centres from the hilltops with light soils to valley bottoms (although there is no clear evidence of this movement in Kent). This perhaps does not so much conflict with

Albarella's findings as point out the nuanced nature of the evidence: wide trends disguise more localised responses.

Unsurprisingly, Springhead and its special circumstances aside, there does seem to be a bias amongst the larger sheep-rich assemblages towards the light soils of the Downs. The larger proportion of sheep in the Early Roman assemblage at Thurnham Villa, itself just below the Downs (41%) may reflect its Late Iron Age origins; by the Mid-Roman period, the proportion of sheep has fallen to 28%, matching that from the rather smaller Mid-Roman assemblage at Northfleet Villa. Late Roman assemblages from all three villas with large numbers of animal bones (Table 8.7a) fit into King's pattern by having less than 30% sheep. At Swanscombe, for which quantified data are not available (Reilly 2010), sheep bones were said to be better represented in earlier features and cattle in later ones.

King's data lacked any evidence from Kent. The evidence above suggests that the same trends may be present, but as the *floruit* of Roman settlement in Kent seems to have been in the earlier period and there are few large Late Roman animal bone assemblages, it is hard to be conclusive. It does seem, however, that landscape had a considerable influence so that at Monkton, situated on chalk downland, wool production (indicated by a preponderance of mature animals; Bendrey 2008, 260) remained an important part of the economy. One should remember the importance attached to the *birrus Britannicus* and the *tapete Britannicum*, both listed in the Edict of Diocletian (Wild 2002, 1); the Roman army must have been a large consumer of wool, which was also supplied raw as well as in the form of clothing as exemplified by the commandant of Vindolanda's purchase of 32lbs of wool (ibid., 5). Possibly the continuing importance of wool production at Monkton was in part due to the settlement's proximity to several Roman coastal installations. Perhaps this also explains the lack of apparent 'Romanization' noted in the assemblage at East Kent Access Zone 6 (Strid 2011a 179): the varied Kentish landscape was capable of supplying diverse requirements of the new regime.

King (1978, 216-225) also finds that the proportion of pig bones among the three major domesticates is significant, with 10% or more being characteristic of villas and other more 'Romanized' settlements. This trend ties in with the chronological change away from sheep already noted but King also connects it to 3rd century problems with the money supply and the increasing imposition of taxes in kind alluded to earlier. In particular, in the 4th century the poll tax (*capitatio)* was amended to include livestock, so a move to the rearing of animals with a high proportion of meat to body weight made sense. Additionally, as pork

was fashionable in the Mediterranean area, Diocletian's price edict gave it a value one and a half times that of beef or mutton.

Again, the lack of substantial Late Roman assemblages makes it difficult to assess whether this pattern is present in Kent. King's own analysis of the bones from Canterbury Castle revealed an unusually large proportion of pig from all Roman phases[xiv]; he suggested that it might reflect the existence of nearby woodland or "a cultural preference of the Belgic peoples" (1982, 202). Elsewhere (1991, 16) King notes that pig bones may form 20-50% of assemblages in high status Late Iron Age sites in the southeast, usually *oppida* . This may then, initially at least, be a reflection of the status of pre-Roman Canterbury. Its later pivotal position, linking routes to all Roman ports and military installations along with its presumed status as cantonal capital make it likely that it would have accommodated many officials and visitors accustomed to more Mediterranean tastes.

Figures for pork consumption at Canterbury are actually exceeded by those from Springhead Sanctuary where, however, numbers may again be distorted by ritual practices. Amongst the assemblages of NISP>300 (Table 8.8), Thurnham Villa (Early and Middle Roman) and Northfleet Villa (Late Roman) both have percentages of pig bones exceeding 10%, as one might expect, but the Late Roman assemblages from Snodland Villa have less than 4% indicating either unusually low consumption for a Late Roman elite site or some depositional bias. High figures derive from the assemblages on the Margate Pipeline, again suggesting that perhaps the needs of the local military were being fulfilled. By contrast, very low numbers of pig bones were noted at Brisley Farm in the Late Iron Age or Roman periods. Given the nature of the Late Iron Age /Transitional 'warrior' burials at Brisley Farm, one might have expected pig to form an important element of the diet. Indeed the second burial contained a pig jaw and pig bones were incorporated in special deposits (Stevenson 2013, 140-141). It is possible that pig is under-represented here because of the poor condition of the assemblage (Ayton 2013, 345-6).

Site	Reference	Period	% Pig	Assemblage size (NISP)
Springhead sanctuary (HS1)	Grimm and Worley 2011	LIA	32	2446
Springhead sanctuary (HS1)	Grimm and Worley 2011	MR	45	2222
Brisley Farm	Ayton 2013	LIA aggregated	2	2127
Springhead Roadside settlement (HS1)	Grimm and Worley 2011	ER	11	2069
EKA 6	Strid 2011a	Roman	11	1803
EKA 6	Strid 2011a	IA	13	1466
Monkton	Bendrey 2008	Roman	9	1351
Springhead sanctuary (HS1)	Grimm and Worley 2011	ER	43	867
Snodland (ASE 2008 excavation)	Driver 2009	LR1	4	829
Brisley Farm	Ayton 2013	Roman aggregated (mainly phase 1 = ER)	0.4	699
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	Transitional	5	695
Snodland (ASE 2008 excavation)	Driver 2009	LR2	3	682
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	ER	17	460
Springhead Roadside settlement (HS1)	Grimm and Worley 2011	MR	11	415
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	ER	21	385
Northfleet Villa	Grimm and Worley 2011	LR	12	334
Weatherlees-Margate-Broadstairs WWP	Grimm 2009	LIA	7	330
Thurnham Villa (HS1)	Kitch and Hamilton-Dyer 2006	MR aggregated	15	308

Table 8.8 Percentage of pig as a proportion of three main domesticates (cattle, sheep, pig), assemblages of NISP>300

8.5 Conclusions

The quantity of information regarding agricultural practices in Kent during the period under consideration has grown significantly in the last ten to fifteen years, although there is still much that we do not and cannot know. A wealth of environmental evidence has been forthcoming which can inform on farming regimes but which, due to formational, depositional and taphonomic factors, will always contain significant gaps and is rarely directly associated with structural evidence. The significance of features such as field boundaries and droveways has been recognised, but the scale of these in relation to the areas subject to excavation means that it is hard to understand wider agricultural landscapes.

It seems clear (reflecting Jones' [1981] conclusions) that the Roman conquest itself did not bring about any radical change in agricultural practices: new systems of land division were already underway by the end of the first millennium BC. During the Late Iron Age and Early Roman period, new or abandoned tracts of land were enclosed by systems which were sometimes subject to relatively rapid transformations; these of themselves do not seem to imply change of tenure so much as refinements to or change of use. Although (generally small) quantities of taxa suggesting the exploitation of heavier soils are sometimes present, there is no indication that the land was under such pressure that widespread expansion into marginal areas was necessary.

A certain conservatism of practice may be evident in the continued cultivation of emmer wheat and in the sustained importance of sheep husbandry. These characteristics of the record serve to emphasise that we cannot shoehorn the evidence - which ultimately is the evidence of individual farmers' decisions on what to grow, how to grow it and what animals to rear – into a process of Romanization, which requires the adoption of new methods and an emphasis on the production of particular foodstuffs. Nevertheless, certain demands must have been made, in the form of taxation and, for tenants, rent and by the later Roman period the great granaries of the Darent Valley bear witness to the production of large surpluses.

Of great importance is the landscape itself. Kent's varied topography and terrain was well-understood by farmers two millennia ago. The mixed farming that is evidenced was frequently situated in areas close to geological and pedological boundaries and the continued importance of sheep in the rural economy must in part be due to the suitability of the chalk downs for grazing sheep rather than cattle.

We should beware of interpreting all animal bone evidence in terms of diet. Although at the end of the day most cattle and sheep were probably consumed, cattle were important for traction (and thus an integral part of arable regimes), whilst wool production would also have been an important source of income.

Reconstructing the rural economy in detail is not possible, but we may get occasional glimpses. Springhead was supplied with meat on the hoof, presumably from farms in its hinterland. Pigs, found in small numbers on rural sites, seem to have been delivered in larger numbers to the towns. Disproportionate numbers of fore-and hind-limbs from the Margate Pipeline hint at trade in butchered meat, possibly supplied to the military.

Although there are some clear trends within the evidence, many of which fit into patterns observed more generally in Roman Britain, there is plenty to suggest that farmers in Kent were making decisions based on the suitability of their land and the requirements of local markets.

These decisions were made in the context of the yearly agricultural cycle which, as noted by McCarthy (2013, 62), provided the key framework for most people's lives. According to season, the tasks of ploughing, sowing, harvesting, or processing would be undertaken; in a mixed farming regime, these tasks would be integrated with stock management as flocks and herds were taken out to pasture, brought back in, bred, raised and slaughtered. The importance of transhumance (particularly of swine) in the pre-Norman period has been emphasised by Everitt (1985, 77-81). The practice has left its mark both in the road system and the number of ancient Wealden swine-pastures denoted by the place name suffix *-den*. Whether this system goes back as far as the Roman period is unknown but it is certainly possible.

Particularly on larger farms or estates the cycle would also have included regimes designed to maximise the fertility of the land by crop rotation, the application of marl and/or manure or the use of infield/outfield systems of animal management. The maintenance of boundaries, whether by management of hedgerows or by the digging/clearing of ditches would also have been an important regular task on both practical and symbolic levels.

These activities would almost certainly have been accompanied by festivals and rituals designed to thank or appease the gods and spirits who controlled the fertility of the land. These rituals as well as labour-intensive tasks such as harvest would have been important elements helping to bind together otherwise possibly dispersed farming communities and further cementing the relationship between people and the land on which they depended.

Notes

[i] Seven reaping hooks, five further "agricultural" hooks, two rakes, two rake prongs and a spade sheath. A further item is identified as a possible dibble.

[ii] A series of ditches presumed to form part of a field system associated with the preceding "Belgic" farmstead underlie Faversham villa, whilst a series of 1st century ditches covering an area of at least five acres may be associated with the Period 1 villa. These have no published plan. More recently LiDAR survey of the Medway Valley has shown possible remnants of a field system associated with Cobham Villa (A. Mayfield, pers. comm.).

[iii] Brisley Farm has not been included owing to the very small number of remains recovered.

[iv] A sample from the late Roman 'corn-drier' at Minster awaits processing (G. Moody pers. comm.)

[v] "Another variety of white marl is the chalk used for cleaning silver; this is obtained from a considerable depth in the ground, usually from pits made 100 feet deep, with a narrower mouth but with the shaft expanding in the interior, as is the practice in mines." (Loeb edition, translated by H. Rackham). This translation of "argenteria" seems unlikely, particularly as Pliny carries on specifically to describe this kind of marl's use in agriculture. It seems more likely to be simply a descriptive name ("silver chalk") for one type of white marl.

[vi] See Hillman (1981, Fig. 5) for a flow chart showing these in more detail.

[vii] S. Willis (pers. comm.) has made the suggestion that the larger ones might possibly represent the internal supports of small roundhouses/circular structures.

[viii] The available photograph (KAFS Newsletter 4, 2007) is not entirely convincing.

[ix] In some cases, as with the Weatherlees-Margate-Broadstairs wastewater pipeline (Grimm2009), results from several sites are aggregated.

[x] Only the main domesticate species: cattle, sheep/goats, pigs, horses and dogs are considered here. Full species lists obviously contain a number of other, mainly wild, species, a small number of which may have been hunted, as well as other domesticates such as domestic fowl or cats.

[xi] Sheep and goats are difficult to differentiate and whilst many reports contain numbers of confirmed sheep and some contain a small number of confirmed goats, the overwhelming majority of specimens in most assemblages are undifferentiated ovicaprids, implicitly mostly sheep. These three categories have been amalgamated here: 'sheep' is used as shorthand for ovicaprid.

[xii] Sykes (2012) points to widespread taboos against consumption associated with the introduction of chickens in many societies. Moreover, the high representation of cockerels on many sites suggests that they were introduced for the purpose of cock-fighting.

[xiii] Although goat remains have been identified at a number of sites, these are always in a minority. The figures quoted here include identified sheep and goats, and generic ovicaprids.

[xiv] Although precise figures are not stated, King's Fig. 101 suggests that percentages ranged between approximately 27% and 58%, being 30% or more for five of seven phases.

9 Burial evidence

9.1 Introduction

As seen in Chapter 5, a large proportion of the Romano-British rural archaeological record consists of burial evidence. This resource has, however, been little explored. Pearce (1999a, 15) notes that in general, "In the rejuvenated study of rural Roman settlement space, burial and other depositional practice remain the poor relations of villa art and architecture". This is certainly the case in Kent where despite the prominence of some recently excavated Roman and LPRIA sites (Biddulph 2006; Allen et al. 2012, 322-389; Johnson 2003; Stevenson 2013) and indeed of older excavations (e.g. Whiting et al. 1931) there has been no attempt at producing a synthesis.

These rural burials have an intrinsic importance and interest in the context of this study: they represent, after all, the rural population of the period, or at least that proportion of the rural population of Kent who were subject to a burial rite that remains archaeologically visible. Whilst the physical remains are of individuals, the burial processes (including type of rite, accompanying grave goods and location) reflect choices made by the living: it is their attitudes to life and death and the image which they wished to portray which are fossilised in the burial record. Funerals, as Parker Pearson remarks (1999, 32) are events at which "social roles are manipulated, acquired and discarded". It can be no coincidence that for some at least, burial rites became so much more visible and that the process regularly involved particular suites of artefacts just at the time that new forms of material culture were being used by the living to negotiate new identities and new relationships: here the dead were drawn into the debate about what forms of material culture were appropriate vehicles of expression in these changing times (c.f. Woolf 1998, 11).

In the context of a thematic chapter within a larger thesis, it is not possible to consider Kent's Romano-British rural burial evidence in the depth which it ultimately deserves. As there is no existing synthesis, the approach is heuristic, aimed at elucidating the evidence available and exploring basic issues of distribution, relationship to settlement and, though briefly, aspects of related material culture.

One of the most notable features of Kent's Romano-British burial record is its sheer variety. Burials, both cremations and inhumations, occur throughout the entire period under consideration and are found singly, in small groups and in larger cemeteries. They are sometimes clearly formal and organised, in designated burial places; at other times they occur in non-cemetery locations and occasionally seem rather casual in nature. The record ranges from simple, unaccompanied inhumations and cremations in ditches and field boundaries to tumuli, mausolea and walled cemeteries. Although most burials broadly follow expected patterns of extended inhumation or cremation, details of the burial rite are highly variable at both inter- and intra-site level. An attempt will be made to summarise and quantify this record whist making reference to earlier surveys on a regional and national level, particularly that of Pearce (1999a). The recently excavated and published cemetery at Pepper Hill (Biddulph 2006) is the only extensive multi-period cemetery in Kent excavated and published to modern standards. Although it cannot be assumed to be typical of burial trends throughout the county, it forms a useful local reference point.

9.2 The nature of the dataset

The dataset used for this chapter comprises 435 records (Appendix 5). This is significantly greater than the 292 records categorised as primarily funerary in nature in the Core Dataset as 1) this dataset contains information on burials that are secondary to other categories of evidence and 2) it contains information omitted from the Core Dataset as either too weak for close analysis or too imprecisely located for mapping. This information is included here as well-located evidence lacking detail aids understanding of distribution, whilst less securely located sites (which are therefore omitted from maps) may, nevertheless, contribute to our knowledge of burial rites. A small number of HER records where location, nature and (particularly) period are in doubt have been omitted, as have those of burials associated with the environs of Canterbury and Rochester (although these latter are mapped). Knowledge of military cemeteries in Britain was recognized as limited by Jones (Jones 1982, 90) and this situation has not altered in the passing three decades; none is known with certainty in Kent (whether military or from a 'civil' *vicus*), although some hints of one such have been found at Reculver (Gough 1971). Burial sites associated with rural centres/small towns are included. Following the example of Pearce (1999a, 21) burials of infants associated with building foundations have been omitted; this is a well-

known but inconsistently reported phenomenon and one which seems to represent a separate form of depositional practice.

Dates of discovery/excavation are known with greater or lesser degrees of precision for 415 of the 435 sites. Fig. 9.1 indicates that the majority of these (256) were discovered prior to 1951 and that only 78 post-date the advent of PPG16. A corollary of this is that only 116 of these sites have been subject to excavation (Fig. 9.2) and within this subset there is some considerable variation, not only in the nature of the excavation but also in the quality of the documentation available. Lack of detailed publication is not only a problem of older excavations as a number of more recent excavations have still to come to final publication (as pointed out in Chapter 5).

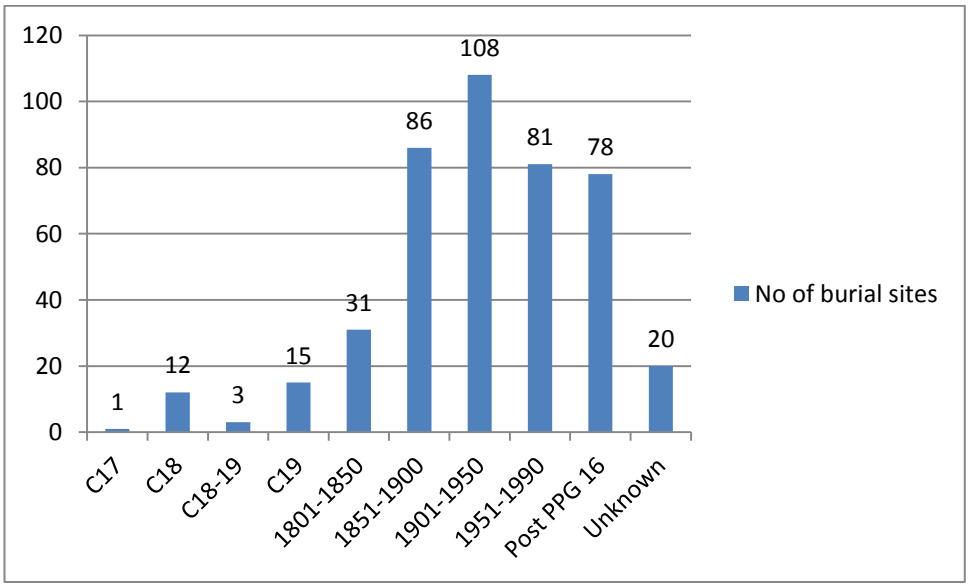


Fig. 9.1 Dates of discovery/excavation of Roman rural burial sites in Kent

Over 60% of the burial evidence derives from casual discoveries, often in the processes of brick-earthing, gravel extraction, grave-digging or construction. The relative proportion of deliberate archaeological interventions to casual finds is of course closely related to the period of discovery. This is illustrated in Fig. 9.2 which graphically demonstrates the impact of PPG16 on the archaeological record: since this legislation, in marked contrast to the situation prior to 1990, it appears that virtually no discoveries of Roman burials have been made outside the context of controlled archaeological work. Consequently, much more is understood about the context of these more recent finds.

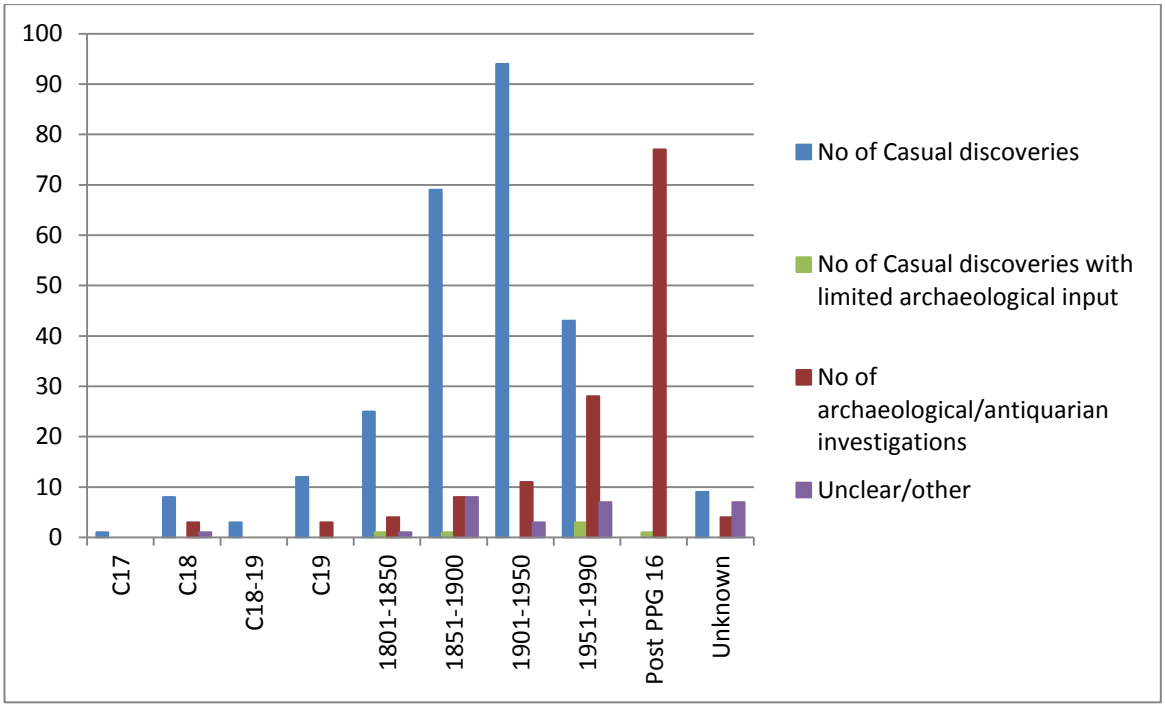


Fig 9.2 Casual finds and archaeological investigations of Roman burials in Kent in relationship to date of discovery

Dating, unsurprisingly is problematic for the greater part of the dataset, particularly for those finds from the first half of the 20th Century and earlier, although even some material from the latest excavations is either not amenable to dating or is at too early a stage of publication for dates to be ascertained. Fewer than half the burial sites (208) are dated to any degree beyond being 'Roman'.

9.3 General trends

Pearce's (1999a) survey was based on the evidence of burials published in the *Journal of Roman Studies*, *Britannia* and in Philpott's earlier (1991) survey of grave treatments and furnishing. He found that at a national level, late burials predominated and that inhumation cemeteries were more prevalent than cremation cemeteries (1999a, 25). Inhumation cemeteries were the dominant tradition on rural sites, villas and urban centres, whilst cremations were more strongly represented at minor centres. The south east of England had a particularly strong record of Roman period burials (ibid. 26) and a rather higher proportion of cremation burials, although Pearce noted that for Kent this applied only to

the data collected from Philpott's survey (ibid. 27) and thought this likely in part to be an artefact of Philpott's data collection strategy.[i] The collated evidence from the HER suggests that there is indeed a stronger record of cremation than of inhumation from Kent. Pearce also found that early and intermediate period cemeteries were more strongly represented in some south eastern counties, including Kent (ibid. 28); again, the present survey tends to confirm this.

An attempt has been made to classify Kent's dated burial sites into ranges based upon those used by Biddulph (2006, 49): these are Early (up to AD 130), Middle (AD 130-260) and Late (AD 260-410) Roman periods. The term Transitional is used for those early burials which may be of either Late Iron Age or Early Roman date (table 9.1).

Date range	**Number of sites**
LIA - Transitional	1
LIA - Roman (unspecified)	1
LIA - Early Roman	4
LIA - Middle Roman	3
LIA - Late Roman	1
Transitional	26
Transitional - Middle Roman	1
Early Roman	73
Early - Middle Roman	26
Early - Middle/Late Roman	1
Early - Late Roman	5
Middle Roman	35
Middle - Late Roman	11
Middle Roman - Anglo - Saxon	1
Late Roman	19
Total	208

Table 9.1 Dates of Roman burial sites in Kent

It should be noted that date ranges in this table may indicate either cemeteries used over (sometimes) considerable periods of time or individual burials/small groups whose precise dates are unknown. In particular the Early – Middle Roman range contains a number of burial sites described as '2nd century' in date. In order to compensate for this, the earliest

and latest dates at which burials may have been made at each site have been plotted (Figs. 9.3 - 9.4). This makes it clear that amongst dated burials at least, the Transitional to Middle Roman periods dominate the record. This fact of course needs to be treated with caution; earlier burials may be over-represented due to the recognisability of certain types of material culture, such as brooches and imported ceramics.

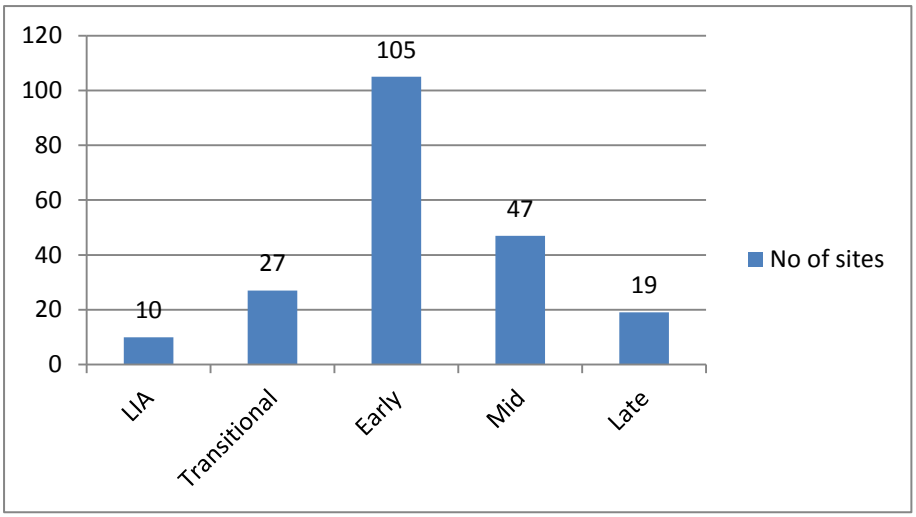


Fig. 9.3 Earliest dates of burials

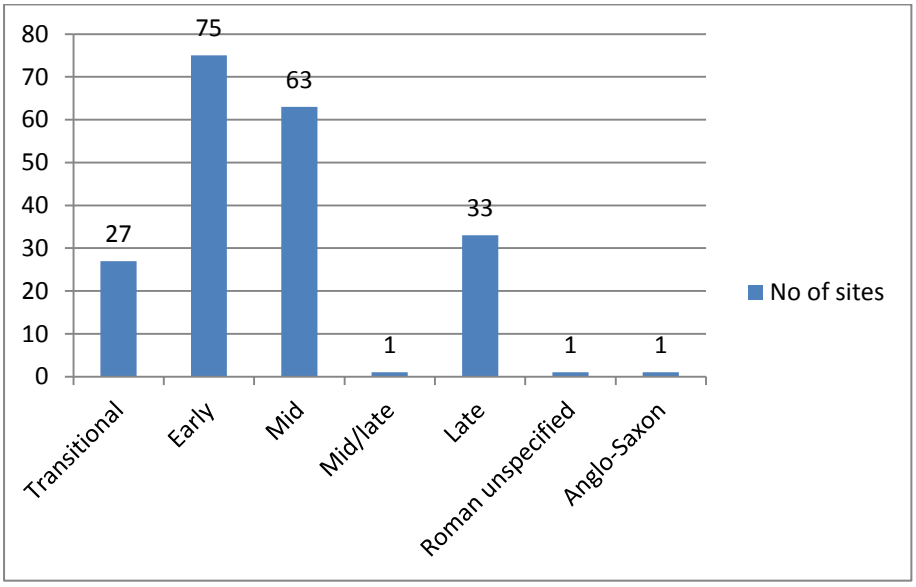


Fig. 9.4 Latest dates of burials

Forty three of the undated burial sites consist of inhumation burials; whereas Pearce concludes that that the generally held assumption that inhumation replaces cremation as the normative rite at some point during the 3rd century is correct, he also cautions that (particularly in certain regions) inhumations also formed a significant proportion of early burials (ibid. 34).

There are certainly indications that this is the case in Kent: dated inhumations occur at all periods, even if in low numbers. In addition to the dated inhumation sites enumerated in Fig. 9.5, there are at least fourteen mixed cemeteries where inhumations were occurring before the Late Roman period. This is particularly striking at Pepper Hill, where inhumation occurred throughout the life of the cemetery and was the dominant rite for most of that time, being exceeded by cremation only during the period AD 120-190 (Biddulph 2006, 50). Indeed as noted in Chapter 4, a tradition of inhumation persisted in Late Iron Age Kent alongside the perhaps better known cremation rite. There is no compelling reason, therefore, to assume that undated inhumations represent late burials; rather, the evidence might be seen to tie in with that already presented in Chapter 5 as suggesting a surge of activity in the Late Iron Age/Early Roman periods followed by a decline.

It also appears that cremation was not entirely replaced by inhumation. Interestingly, Payne (1898) associated a group of Late Roman inhumations from "The Brook", Chatham (which apparently, from the grave goods, extended into the 5th century) with an adjacent find of several cremations. These are undated, but from the description of the pottery[ii] a Later Roman date seems feasible.

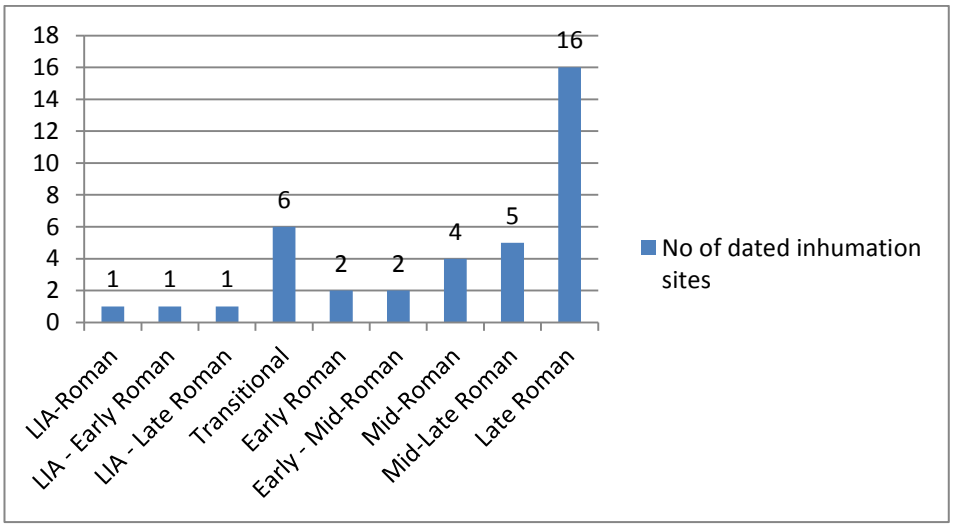


Fig. 9.5 Inhumation sites

9.4 Quantifying the data

In terms of numbers of burial sites, the record is certainly dominated by cremations (Table 9.2). This picture is somewhat skewed by the large number of single cremation burials. Cremations also predominate amongst small burial groups. Mixed cemeteries span the entire range from just two to over 560 burials on one site but the largest inhumation cemetery known at present consisted of 55 burials (Philp 2010). Amongst those sites where numbers of burials are uncertain it has sometimes been possible to distinguish those with implicitly only a handful of burials ('low uncertain') from those which apparently encompassed a more substantial number ('cemetery, size uncertain'). Uncertainty over the size and composition of most of the larger cemeteries makes it difficult to estimate overall proportions of cremation. In a number of cases apparently smaller cemeteries may in fact be portions of larger ones.

Number of burials	**Type of cemetery**		
	Cremation	**Inhumation**	**Mixed**
1	93	31	0
2	22	8	2
3 - 5	27	15	4
6 - 10	17	10	7
Low uncertain	15	1	1
11-20	7	7	7
21 - 50	0	0	3
51 - 100	2	1	0
Cemetery, size uncertain	9	1	7
387	0	0	1
560+	0	0	1
Unknown number	48	8	9
Total	240	82	42

Table 9.2 Sizes and types of cemeteries

9.5 Spatial trends

Mapping the burial evidence allows the identification of some spatial trends.

Larger cemeteries (21 burials or more known or implicit; Fig. 9.6) have some degree of correlation with major routes and/or local centres and almost all sit within those areas already characterised (Chapter 5) as having higher densities of Class A evidence. They may be evidence for the existence of local centres at Otford and Maidstone. Of known local centres, only Westhawk Farm at present has no confirmed substantial cemetery.

The largest cemeteries (51 burials or more; Fig. 9.7) show correlations with the known roadside settlements of North Kent and with Otford. More anomalous is the substantial Late Roman inhumation cemetery on the Isle of Grain (Philp 2010) for which, like the large walled cemetery at Sutton Valence, no major Roman settlement focus is at present known.

Cemeteries of 11-20 burials (Fig.9.8) are often, but by no means always on or near major routes. Minor roads are evidenced or argued for at Each End, Ash (Hicks 1993) and the "Brook", Chatham (Payne 1911). Other contexts include a prominent chalk ridge (Tothill; Gollop and Mason 2006); a pre-existing hollow-way (East Kent Access Zone 12; Oxford Wessex Archaeology 2011, 115) and a portion of a major boundary ditch which itself contained Middle Iron Age burials (Pepper Hill to Cobham Road Scheme Site L; Allen et al. 2012, 409-414).

The settlements that others of these cemeteries served are less easy to pin down, although this is in some ways unsurprising, being the corollary of the fact that the burial grounds of most known smaller settlements are also unknown. If cemeteries are confined to the peripheries of settlements then in the absence of very large scale interventions, evidence is more likely to be found of one than of the other.

The majority of small cemeteries of six to ten burials in size have been excavated since PPG 16, hence information is often available regarding their context. This group includes two walled cemeteries and a mausoleum (see below). At this level we are almost certainly dealing with small social grouping/family burial grounds. Examples include

- Thanet Earth Plateau 2 (Rady 2010, 26)
    - Six cremations associated with a settlement including at least one sunken-featured building

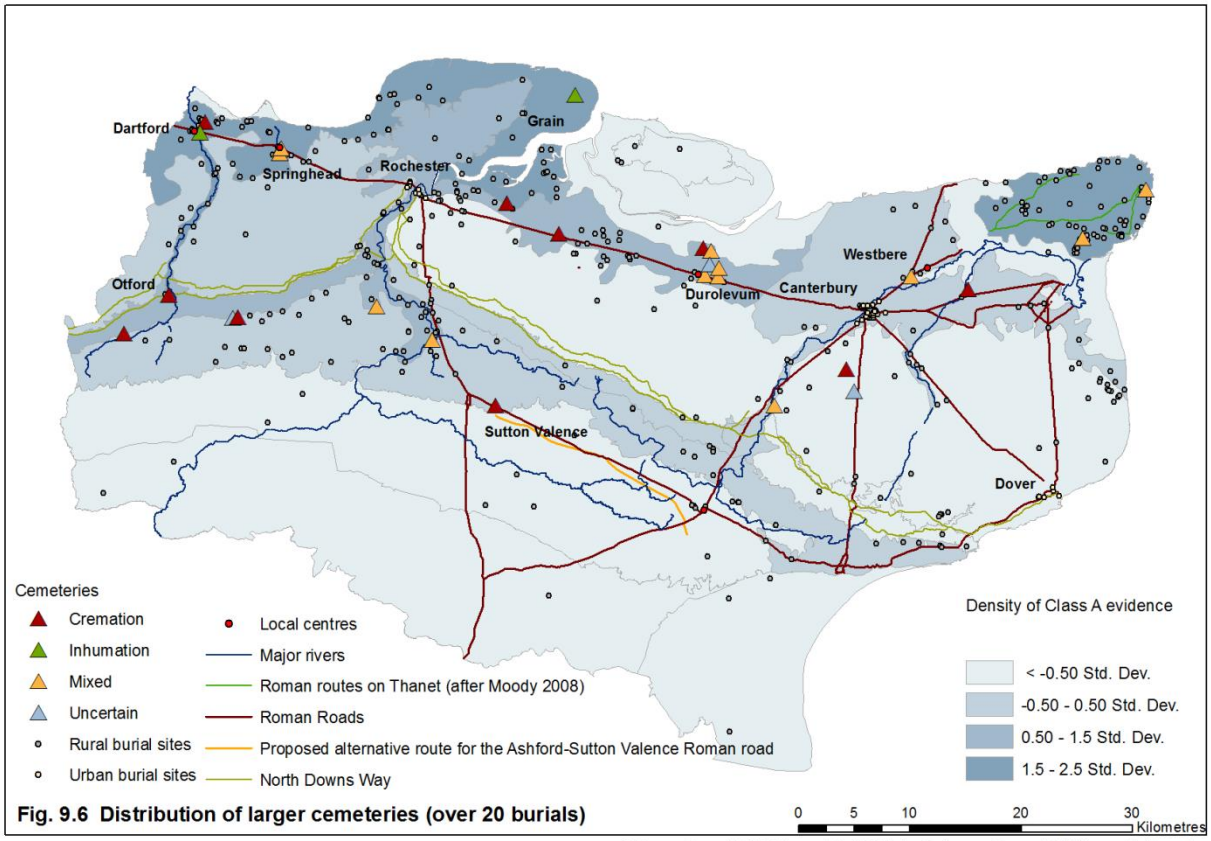


Fig. 9.6 Distribution of larger cemeteries (over 20 burials)

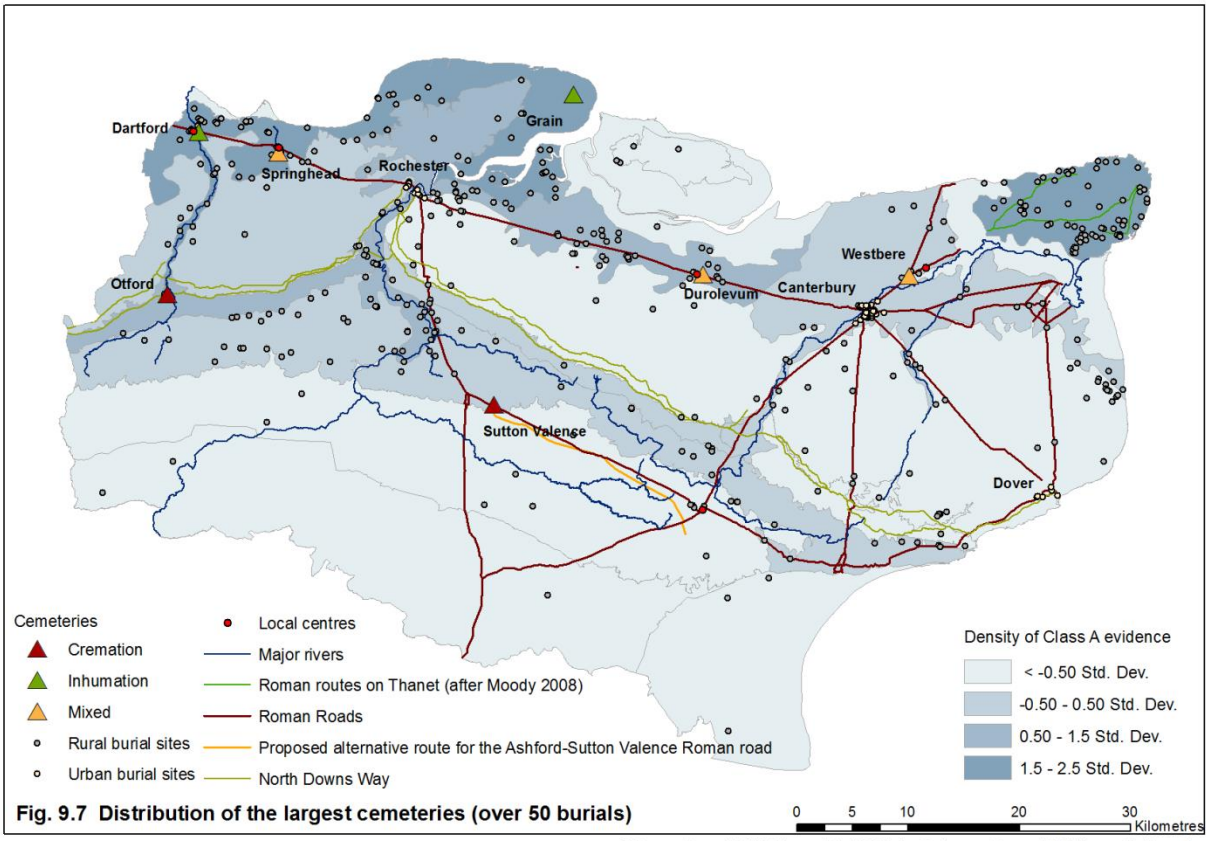


Fig. 9.7 Distribution of the largest cemeteries (over 50 burials)

- A2 Pepperhill-Cobham Site D
    - a single early Roman elaborately furnished cremation within a subdivision of a large settlement enclosure (Allen 2012, 322-354)
    - six further Early Roman cremations (including two more of high status) and three inhumations (two Early Roman , one Late Roman) situated in another attached enclosure (ibid. 354-389). This was located close to a probable aisled building which may have formed the main dwelling (although it is possible that a more conventional villa house existed in an unexcavated area of the site [ibid. 478])
- Crundale (Bennett 1984; Weekes 2005, 119-139)
    - a divided enclosure containing two groups of cremations dated AD 50-200 situated just north of what appeared to be a settlement boundary with evidence of internal buildings

These examples suggest that such small burial plots, sometimes, despite their size, spanning a considerable time span, might be much more closely associated with settlements than larger cemeteries. They were often, like their large counterparts, associated with roads or trackways (Fig.9.8), although these were often local routes rather than major Roman roads as at Saltwood (Riddler and Trevarthen 2006, 17) and Thorne Farm (East Kent Access, Zone 19a; Oxford Wessex Archaeology 2011, 140). Smaller inhumation cemeteries seem particularly associated with the Medway valley and its hinterland; some are known to be late in date and definitely or possibly associated with villas.

The distribution pattern of single and smaller groups of burials is quite different (Fig. 9.9): these mostly occur in the hinterlands. The singles and groups of two in particular extend the distribution of burials into the Darent and Medway valleys, onto the Downs, into the corridor of land bounded by the North Downs way and the River Beult and comprise the majority of burial sites in the Chartland. This may be in part a chronological bias as, where dated, these individual and small group burials are biased toward the Transitional and Early Roman periods and we have already seen (Chapter 4) the importance of this central corridor at the time of the Conquest. Only a minority of this category of burial sites have been subject to excavation to current standards; the greater part represents casual finds made in the course of other activities, mainly by labourers and frequently in the 19th or earlier 20th Centuries.

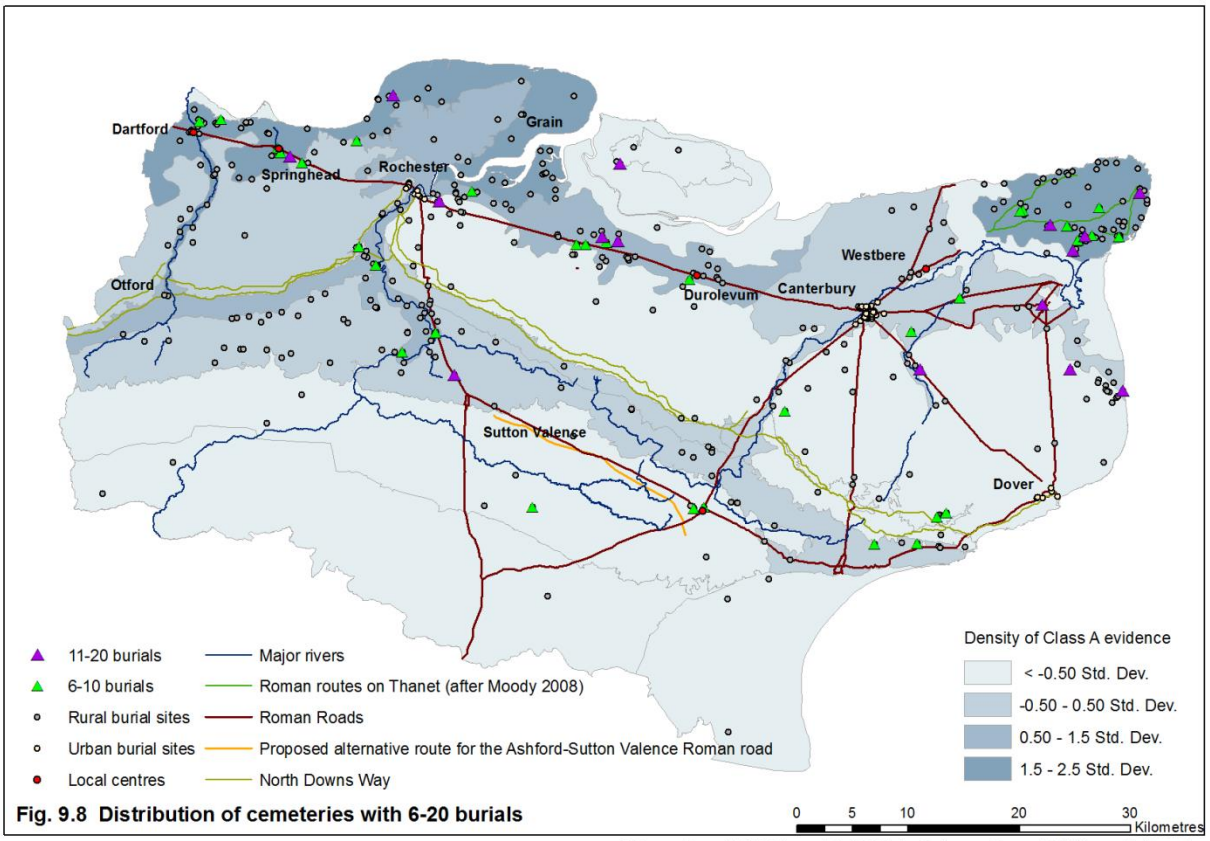


Fig. 9.8 Distribution of cemeteries with 6-20 burials

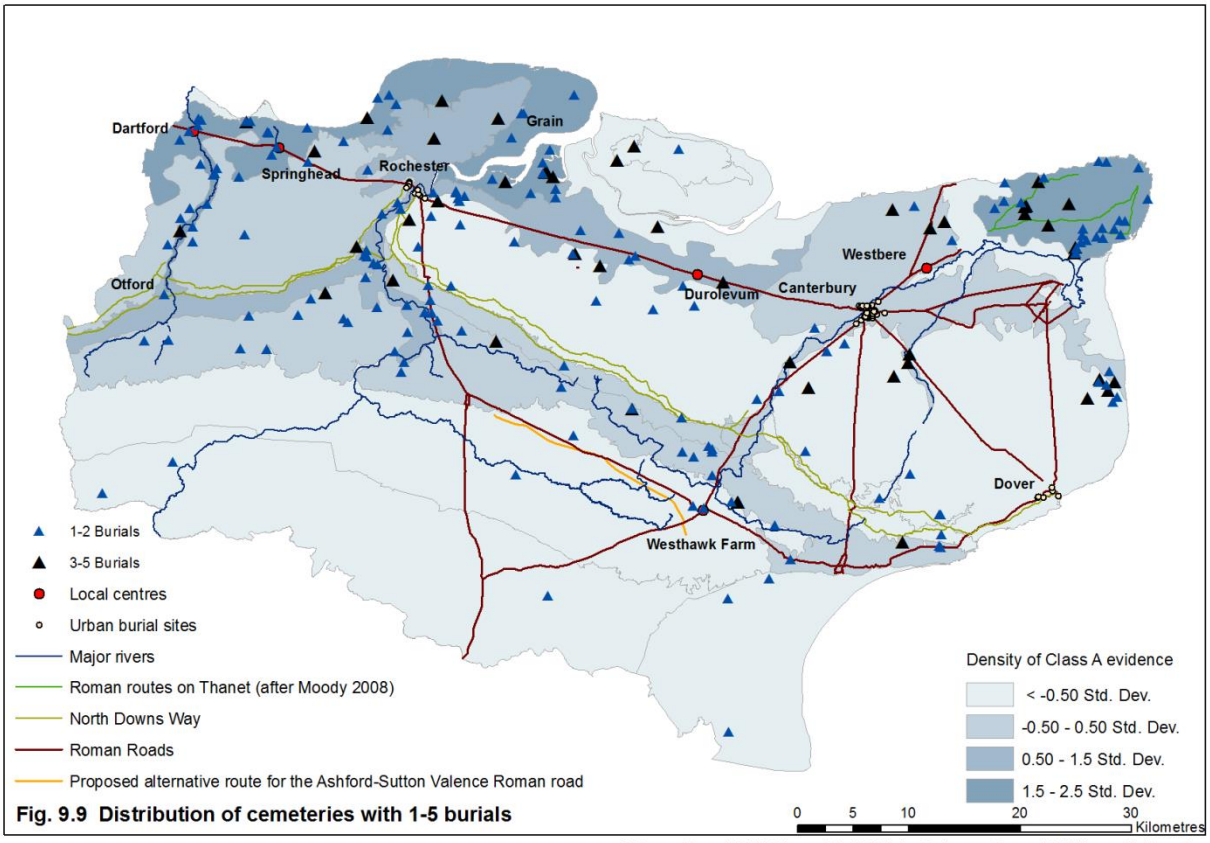


Fig. 9.9 Distribution of cemeteries with 1-5 burials

9.6 Individual and small group burials: contexts

The most recent excavations, many with good dating and contextual information form a rather biased set geographically (Fig. 9.10), with an over-representation on Thanet caused by projects such as Thanet Earth and the East Kent Access road scheme. Basic contextual information for this subset is summarised in Figure 9.11.

These burials come from a variety of contexts. It is often difficult to establish the precise spatial relationships of burials to settlement evidence as the information available is partial; in just one case (at Hawkinge) it is suggested that a cremation burial derived from a site at the entrance to an area of settlement (Priestly-Bell 1999). Besides these, there are three enclosed burials, four that appear isolated and fifteen where burials are cut into pre-existing features; these are mostly ditches but also include pits and the fill of a disused quarry.

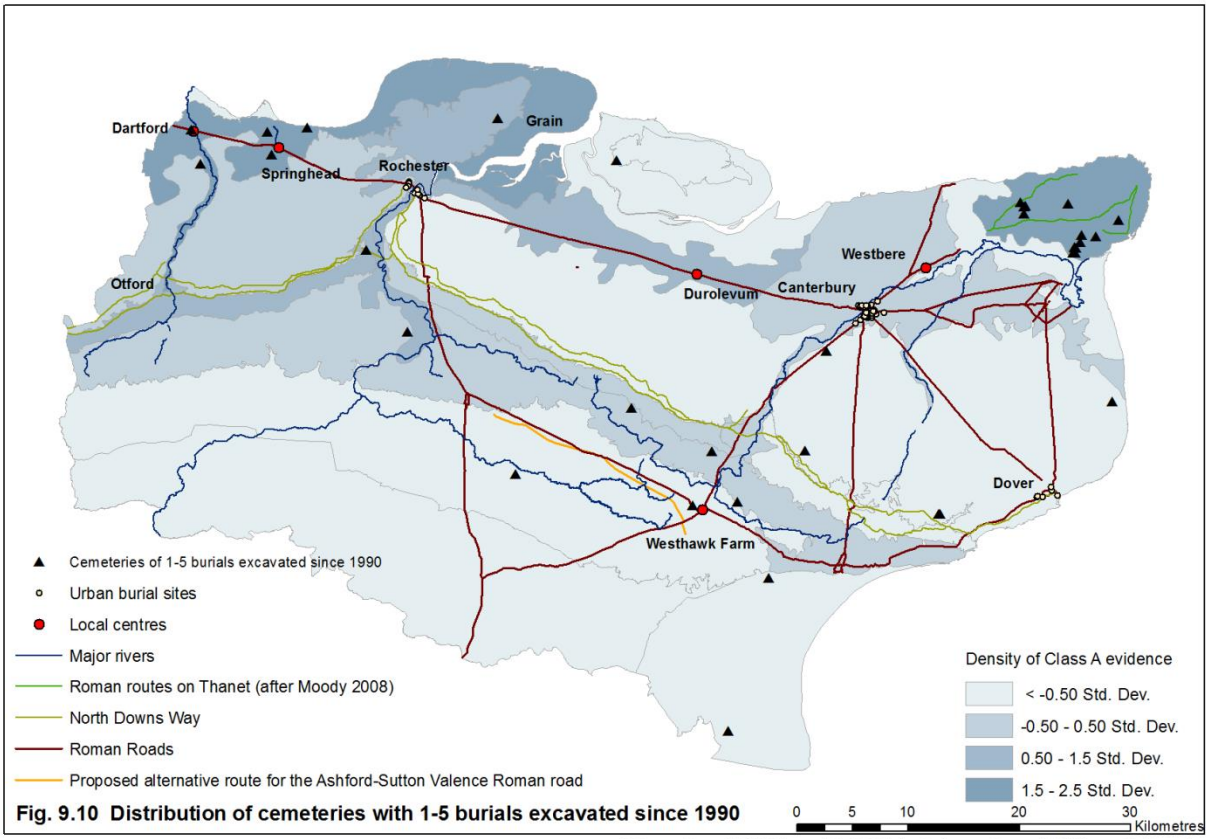


Fig. 9.10 Distribution of cemeteries with 1-5 burials excavated since 1990

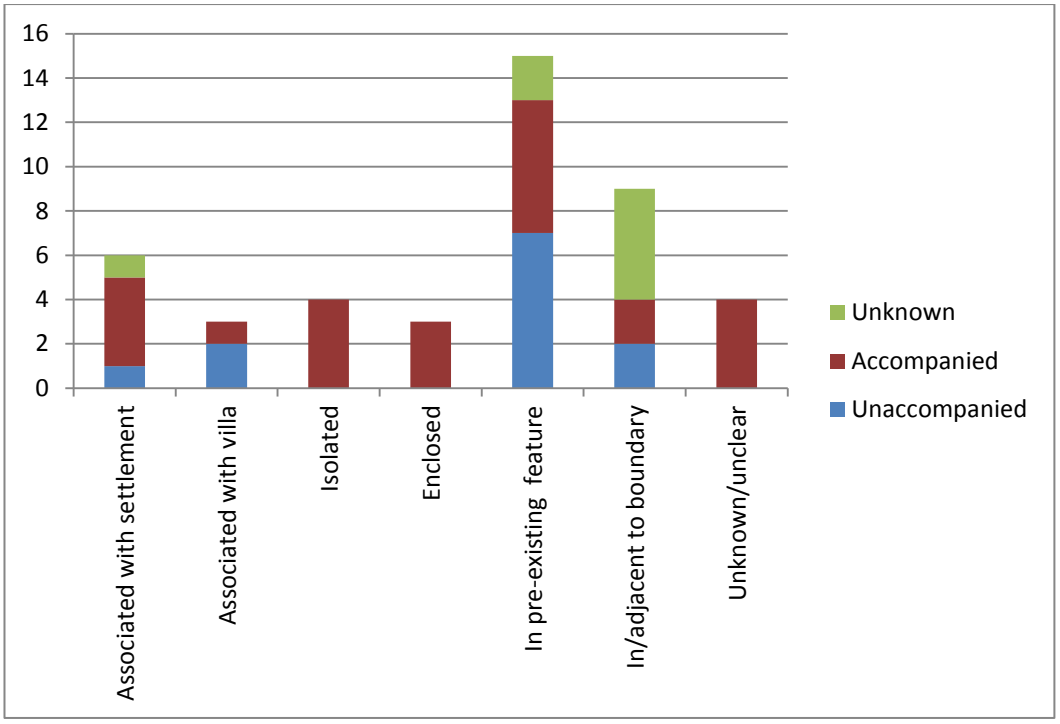


Fig. 9.11 Single and small group burials: contexts

Two of the enclosed sites are exceptional. One of these is at Brisley Farm (Johnson 2003; Stevenson 2013), where two 'warrior' burials dating to just before the conquest were probably interred beneath square tumuli and may have formed the focus for feasting and ritual until perhaps as late as the later 2nd century (cf. Chapter 4, Fig. 4.4). The other is at Swanscombe Community School (Mackinder 2010) where an undated deposit of cremated bone was interred in what may have been a ritual enclosure containing a possible shrine. At Thanet Earth Enclosure 10 on Plateau 8 seems to have been a more conventional mortuary enclosure but, nevertheless, three Early Roman cremations included two "quite richly furnished" box burials (Rady 2010, 26).

Isolated burials include an accompanied unurned cremation of Transitional date (possibly in organic container) from East Kent Access Zone 11 and a Mid-Roman coffined inhumation accompanied by a small jar, from Zone 7 of the same excavation (Oxford Wessex Archaeology 2011, 88; 106). At Thanet Earth, two apparently isolated burials on Plateau 1 included a rich burial with nine ceramic vessels, fifteen amber beads, three copper alloy brooches and two pins and a lead spindlewhorl (Rady 2010, 26).

The enclosed and isolated burials all therefore seem to have something of a formal quality about them, with indications of social and/or ritual status. The enclosure may, have marked out land ritually set apart for burial, perhaps also protecting the living from the power of the dead, in the manner suggested by Esmonde Cleary (2001, 139).

The largest category (although still only comprising fifteen examples from this reduced set) is of burials situated in older man-made features, a category which overlaps with the nine burials in or adjacent to boundary features: not all pre-existing features necessarily form significant boundaries and not all boundary-related burials are actually within the boundary feature. Altogether, seventeen (46%) of the burial sites fall into one or both of these categories.

It is well-established that rural burials were often placed in enclosure ditches. These have often been thought to be particularly associated with the back yards of properties, especially in small towns (Esmonde Cleary 2001, 129) but Pearce (1999a, 101) finds them associated with entrances, junctions, corn-driers and furnaces[iii] and locations beyond enclosures. Amongst the examples here are several burials of Transitional to Early Roman date from within the swathes of ditches that appear to have cut off the Ebbsfleet peninsula from 'mainland' Thanet in the Later Iron Age and Early Roman periods (Andrews et al. 2009, 105; Oxford Wessex Archaeology 2011, 37). Further burials occur in less substantial ditches. We cannot assume that these were simply convenient places for disposing of bodies: although the practical advantages of digging graves into the fills of old features cannot be denied, neither can the symbolic nature of boundaries (Bowden and McOmish 1987; Hingley 1990); in the Roman era they were often in receipt of other subsequent features, such as ovens and corn-driers, where either the expediency of an existing hollow and/or a selected symbolic location for a transformative process may have been in the minds of these past actors.

There may be many reasons for choosing a boundary as a suitable place for burial: it might fulfil the criterion of placing the dead away from the living (as with burial completely outside a settlement); boundaries might be viewed as liminal spaces suitable for negotiating relationships between the living and the dead; lastly the dead, if powerful enough to require enclosure, might conversely be powerful enough to provide protection (perhaps a parallel of the Medusa antefixes seen on urban tiled roofs at Colchester and elsewhere).

Disused pits may likewise have symbolic connotations and were frequently the loci for structured deposition in the Iron Age (Hill 1995). Although the placing of a Late Iron Age or Early Roman flexed inhumation in a disused pit at Gravesend and North Kent Hospital (Pre-Construct Archaeology 2005) is unusual for the west of Kent it resembles a not uncommon Iron Age burial tradition on Thanet (Moody 2008, 124). Such burials are sometimes regarded as casual, almost akin to refuse disposal, but a burial in the top of a Bronze Age pit found in Zone 4 of the East Kent Access scheme was coffined and therefore formal. Burial in pre-existing features may have been a conscious strategy aimed as connecting the dead (and via them, the living) to ancestral patterns of land occupation (Pearce 1999b, 158).

9.7 Monumentalised tombs: walled cemeteries, mausolea and tumuli

Although great caution must be exercised before assigning either elite or low status to burials (Hodder 1982; Parker Pearson 1982; Hope 1997) certain features almost certainly indicate elite status or at least the wherewithal to put on a display of some pretension. These are not necessarily the same thing as the anomalous position of the freedman reminds us: capable of acquiring great wealth and sometimes a degree of real power a freedman was denied the honourable status assigned to the freeborn and consequently barred from certain crucial positions in society (Mouritsen 2011). The over-representation of freedmen in funerary sculpture and epigraphy is well-known and in a part of the empire where such features are rare it may be that less elite but, nevertheless, affluent members of society expressed similar concerns over status and identity through the medium of elaborate funerary display.

These features can be divided into two overlapping groups; the first and most compelling involves the presence of a monumentalised tomb or cemetery; secondly, the provision of precious metals, 'exotic' grave goods, such as imported bronze vessels or otherwise exceptional assemblages, may also suggest wealth or status. Funerary inscriptions appear to be absent from rural Kent. Just three or four fragmentary funerary inscriptions (RIB 41-43, possibly 45) have been discovered in Canterbury, whilst the child's tombstone in Canterbury Museum (RIB 2328) is considered to be a later import.

9.7.1 Walled cemeteries and mausolea

Although widely distributed in the south-east (Jessup 1959), walled cemeteries are particularly associated with Kent (Fig. 9.12). The cemetery at Sutton Valence, discovered in 1827[iv] (Roach Smith 1842) seems to have been exceptional in the number of burials it contained, its D-shaped walls enclosing approximately 100 cremation burials in addition to an Early Roman central burial housed in a vault or cist. Although the cemetery lies close to the probable route of the Sutton-Valence to Ashford Roman road, little is known of Roman occupation in the area beyond the foundations a Roman building excavated within a kilometre of the site in 1949-50 (TQ 84 NW 6 [unpublished]).

Other walled cemeteries contained more modest numbers of burials and have more the appearance of private burial grounds. One at Springhead was of exceptional area, dwarfing the nearby Pepper Hill cemetery. A monumental inner enclosure with stone tombs contained elaborately furnished inhumations and (possibly redeposited) cremations with further more modest cremations. Davies (2001) has found parallels between the construction of the cemetery and an episode of reconstruction at the Springhead temple precinct at the end of the 2nd century and argues that it is the private burial ground of the family which sponsored these works.

A walled cemetery of probable 2nd to 3rd century date with monumental tombs and further burials both inside and outside its walls was found at Joy Wood, Lockham (Smythe 1883; Mackinder 2000). Another at Sittingbourne (Payne 1893, 54-8) also contained evidence of a mausoleum and a mixture of both elaborate and simpler inhumations and cremations. Jessup (1959, 230) suggests that the cremations dated to the early 2nd century, considerably earlier than the lead-coffined burial of a child accompanied by gold and jet jewellery including a ring of 3rd-4th century date and that the cemetery was thus in use for a considerable time.

A site at Luton Brickfield, Chatham (Wickham 1874) is less well described but is suggestive enough for Jessup to have included it in his list of walled cemeteries partly on the basis of the nature of its 1st to early 2nd century grave goods (1959, 28). A walled cemetery at Barming (Beale-Post 1848) is anomalous for containing only one unaccompanied cremation. Fragments of a “Roman” stone sarcophagus found outside the perimeter of the cemetery and accepted as such by Jessup are not convincing. Davies’ reassessment and

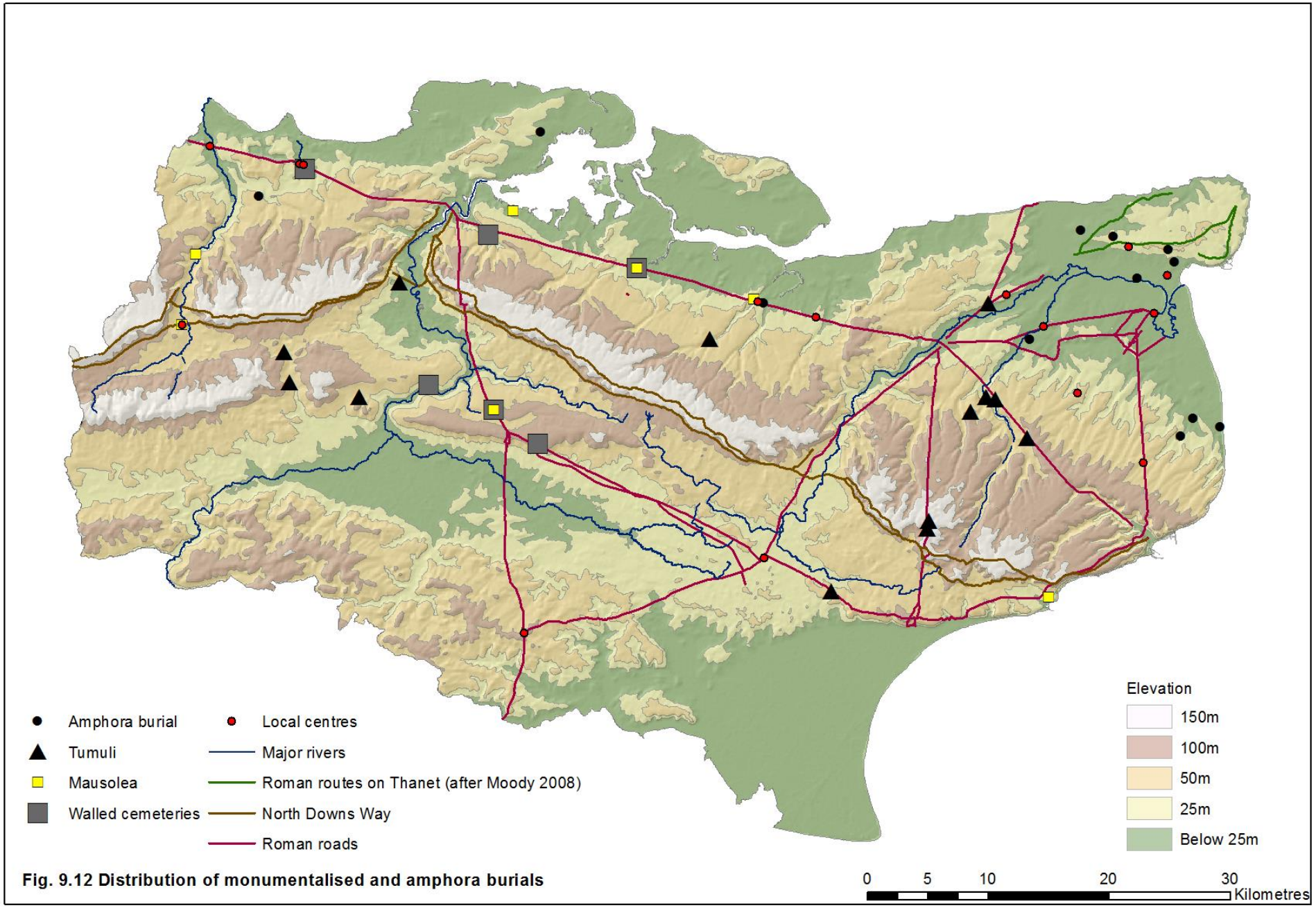


Fig. 9.12 Distribution of monumentalised and amphora burials

survey (2009) has demonstrated that there was no walled cemetery at Plaxtol as had been stated by Luard (1859) and accepted by Jessup.

Walled cemeteries are not the only contexts for mausolea. They may also be more directly associated with settlement sites. At Lullingstone Roman villa, the mausoleum housed two adult inhumations in lead coffins dated to c AD 300 (Meates 1987, 89). At Grange Farm, Gillingham, the construction of a mausoleum during the period AD 250-300 formed part of a major phase of restructuring of what may have been a villa site originating in the 2nd - 3rd centuries. There are also suggestions of mausolea associated with the putative villa off Warren Road, Folkestone (Rigold 1973, 32). [v]

At Frog Farm, Otford (Ward 1968; 1990) an octagonal building, reportedly containing some kind of cist, was an apparently later feature of the 2nd century unwalled cremation cemetery.

Finally, Stone Chapel, Faversham, is often thought to have originated as a Roman mausoleum and occupies a position on Roman Watling St close to the settlement at Durolevum, although Ward (2005) would interpret it as the *cella* of a Romano-Celtic temple.

Where there is any degree of detail regarding grave furnishings, walled cemeteries and mausolea are linked by the provision of costly artefacts such as lead coffins and gold jewellery (with inhumations) or glass and bronze vessels, lamps and sometimes extensive arrays of pottery (with cremations). They are also linked by location, with walled cemeteries showing a strong leaning towards locations on Roman roads (Fig. 9.12): only the cemetery at Barming, already anomalous and possibly associated with a modest Roman building discovered in 1797 (Taylor 1932, 104), is not on a major route (but does overlook the River Medway, itself likely to have been a key arterial route). Burial in a monumentalised tomb within a walled enclosure adjacent to a major road is something that can perhaps truly be called 'Romanized'. The inclusion of relatively modest burials alongside extravagantly furnished ones perhaps indicates the Roman concept of the household, as opposed to the strictly biological family. Not so 'Roman', however, is the lack of epigraphy and within the cemeteries a considerable range of styles of burial is found, suggesting a similar range of concepts as to what "becoming Roman" entailed (Woolf 1998).

9.7.2 Tumuli

If walled cemeteries and mausolea look towards Rome for their inspiration, tumuli are more nebulous in origin and have been seen either as a revival of an ancient native form or else as an imitation of late Republican examples, in particular of the tomb of Augustus (Pearce 1999a, 7); as Morris (1992, 51) points out, the form might have had different resonances for different audiences. As Roman barrows, where dated, tend to date from the later 1st or 2nd centuries (as in the *civitas* of the Tungri and beyond; Crowley 2011) they would in either case be referencing the practices of earlier times.

Few Roman barrows have been excavated in Kent. The best known is Holborough Knob, Snodland, where antiquarian excavations (Lambarde 1596, 407; Wright 1854, 183-9) fortunately narrowly missed both primary and secondary burials[vi] leaving these to be recovered in a more controlled manner by Jessup (1954). Holborough is exceptional in several ways: it is relatively late in date (early 3rd century), has the remnant of an internal wall and contains evidence of an unusual and complex cremation burial rite.[vii] It also has a secondary inhumation of a young child in a decorated lead coffin said to show Syrian influence (Toynbee 1954, 39).

At Gorsely Wood, three still extant barrows were found to contain primary cremations in cists and secondary ones in urns (Vine 1883). The tumulus at Plaxtol (Luard 1859) contained the skeleton of a probable female; deposits of 1st to 2nd century pottery, brooches and glass were found around the perimeter, possibly representing unrecognised secondary cremations.[viii] Other potentially Roman barrows have been lost to the plough or have no definite dating evidence, the assignation of date made on account of characteristic shape and/or position. In East Kent, Roman or potentially Roman barrows tend to be sited near to major roads (Fig. 9.12); this is not the case in West Kent. Almost all are situated at elevations of at least 50m OD (contrasting with just 25% of Class A evidence more generally). Holborough, at a lower elevation, sat in a prominent location overlooking the site of Snodland Roman villa. Other barrows may also be associated with villas: that at Plaxtol occurs in an area of Roman period activity including two modest villas and a bath house, whilst burials from Bourne Park, Bishopsbourne, near a newly discovered building complex (Wallace et al. 2014) are said to derive from a barrow (Haverfield et al. 1932, 147).

Although both walled cemeteries and tumuli have associations with Roman roads, it is interesting to note that the distributions of those monuments on major routes is mutually

exclusive; there are in fact no rural walled cemeteries known from East Kent, whilst in West Kent, barrows do not seem to be associated with roads. In East Kent, tumuli seem to be particularly associated with the roads leading from the naval ports to Canterbury. Tumuli in particular (but also some walled cemeteries) tend to lie outside the most densely populated regions.[ix]

9.8 Grave Furnishings

9.8.1 Coffins

Lead coffins have been recovered from sixteen rural sites, including an exceptional group of six to ten from Bex Hill (Payne 1874). Where dated, these seem to belong to the 3rd to 4th centuries and their distribution is limited to the north of the county, most particularly to the Sittingbourne and Rochester regions. In several cases they are linked to mausolea or barrows. There is sometimes evidence of an outer wooden coffin and in one case an outer stone sarcophagus was reported (Haverfield et al. 1932, 174). There is some evidence to suggest that children are over-represented amongst lead-coffined burials as four of these rural sites produced child inhumations, whilst another two were reported to be small in stature. In addition, the only two lead coffins known from urban sites in Kent (one each from Canterbury and Rochester) contained the skeletons of a girl and a small child respectively.

Wooden coffins are not uncommon, but are most often represented simply by nails and occasionally soil stains. It is possible that coffins were sometime pegged or jointed rather than nailed, as must have been the case at Pepper Hill grave 11650 (Biddulph 2006, 24); these would have left little or no indication of their existence.

9.8.2 Cinerary containers

Two hundred and fifty two sites provide at least basic information regarding cinerary containers and/or accompanying grave goods. The containers are categorised by type in Table 9.3 (it should be noted that the figures are for sites/cremation groups and not for

individual burials). As might be expected, ceramic vessels are by far the most frequent and only exceptional features will be commented upon.

Cinerary container type	**No of sites where the type is attested**
Amphora	13 & 2 possible
Ceramic (other)	206
Wooden	6
Glass	3
Unurned	16
Organic	1
Lead canister	2
Unknown/unclear	20

Table 9.3 Cinerary containers

Amphora burials[x] form the most distinctive feature of the record and have been found at a minimum of 13 locations, mainly in the east and especially on Thanet (Fig. 9.12). Nevertheless, the largest number derives from Ospringe where 37 were excavated in the 1920s. These represent approximately 10% of all the known burials from the site; Whiting (1932, 4) estimated that the cemetery probably contained twice this number of burials so the number of amphora burials may also be considerably larger. Aside from being an example of a local tradition, this suggests that Durolevum was potentially a place of pivotal importance in the trade of Dressel 20 amphorae either arriving with their original content or as recycled receptacles. In West Kent, amphora burials are associated with walled cemeteries.

Two cremations were enclosed in lead canisters. One of these derives from the probable walled cemetery at Sittingbourne (Payne 1893, 57) and the other, from Aldington, contained the remains of a child (Haverfield et al. 1932, 144), again suggesting that lead was seen as particularly suitable for protecting the remains of juveniles.

Wooden boxes or caskets contained cremations on at least six sites. At Thanet Earth it was noted that these tended to be associated with “richer” or more complex assemblages (Rady 2010, 26), as seems also to have been the case at Coldswood Road (Andrews et al.

2009, 95). Many of the 'unurned' cremations also seem to be well-furnished: some of these may have originally been placed in organic containers. The extravagantly furnished Early Roman cremations from the A2 Pepperhill-Cobham Site D, for example, were unurned (Allen et al. 2012, 327-329, 355, 373). All three cremation deposits were accompanied by brooches, however, which may have originally secured bags containing the cremated remains.[xi] Unurned cremations, though few, are widely distributed and tend to be of earlier date, although not exclusively so. Unsurprisingly, the majority have been discovered in the context of formal excavation since 1990 and it may be excavation bias that makes them appear rarely to penetrate deep into the hinterland. It is likely that many more unurned cremations have gone unrecognised, some undoubtedly amongst the groups of 'probable' funerary vessels (with no recorded accompanying human remains) that feature not infrequently in the records .

9.8.3 Accessory vessels and other grave goods

Space does not permit an extensive treatment of grave goods; more importantly, much more detailed analysis of individual assemblages is required to make meaningful conclusions beyond the most mundane.

The funerary dataset contains a subset of 280 sites where grave goods are clearly present or absent (Table 9.4). Grave goods are present at 91.7% of these sites; cremation and mixed rite sites have a rather higher percentage and inhumation somewhat lower at 80.3%. Ceramic vessels are by far the most common grave goods, occurring at 87.5% of sites (Table 9.4).

	No of sites	**No of sites with grave goods**	**Percentage of sites with grave goods**	**No of sites with ceramic accessory vessels**	**Percentage of sites with ceramic accessory vessels**
Complete subset	288	264	91.7%	252	87.5%
Cremations	172	162	94.2%	155	90.1%
Inhumation	61	49	80.3%	45	73.8%
Mixed	31	30	96.8%	29	93.5%

Table 9.4 Presence of grave goods and accessory vessels

Amongst ceramic vessels, samian forms an important component, particularly amongst cremations (Table 9.5):

	Percentage of all burial sites with samian	**Percentage of sites with grave goods having samian**	**Percentage of sites with ceramic accessory vessels having samian**
Complete subset	46.9%	51.1%	53.6%
Cremations	34.0%	37.1%	38.9%
Inhumation	1.4%	1.5%	1.6%
Mixed	5.9%	6.4%	6.7%

Table 9.5 Presence of samian

These figures are similar to the 52.1% for smaller civil centres and 46.1% for rural sites/environs found by Willis (2005, 9.4) but again it must be remembered that the present figure is for sites, not individual burials and that cemeteries associated with smaller centres have not been separated from smaller rural sites. Of 73 single accompanied cremation burials which can be isolated, 31 (42%) have samian vessels. Very few inhumation burials contain samian; this must be at least in part a matter of chronology though interestingly at least two curated pieces of samian as well as forms imitating samian derive from Late Roman inhumations.

A wide range of other wares is found. Gallo-Belgic wares derive from a minimum of twelve early burial sites, in the majority of cases in otherwise well-furnished burials. In the later part of the period, Nene Valley wares occur prominently at some sites as at “The Brook”, Chatham (Payne 1898) and the Isle of Grain inhumation cemetery (Philp 2010). Glass vessels are associated with at least 27 sites. Lamps and lamp stands are uncommon finds. Imported bronze vessels are rare and tend to be associated with large assemblages in burials marked out in other ways as being ‘special’. Items of gold are very rare with examples from only four definite sites: the walled cemeteries at Springhead and Sittingbourne where the gold items were associated with children, the mausoleum at Grange Farm where the original associations of the two gold necklaces are unknown and the cemetery at Bex Hill where one lead-coffined inhumation contained a pair of gold wire earrings and three jet pins.

Items of personal adornment are found perhaps less frequently than one might expect and appear in only 51 records in the dataset. By far the most frequent are brooches which have

a bias towards cremations of the Transitional and Early periods (Fig.9.13). This is in accord with Philpott's findings, at least as far as cremations are concerned (1991, 129).

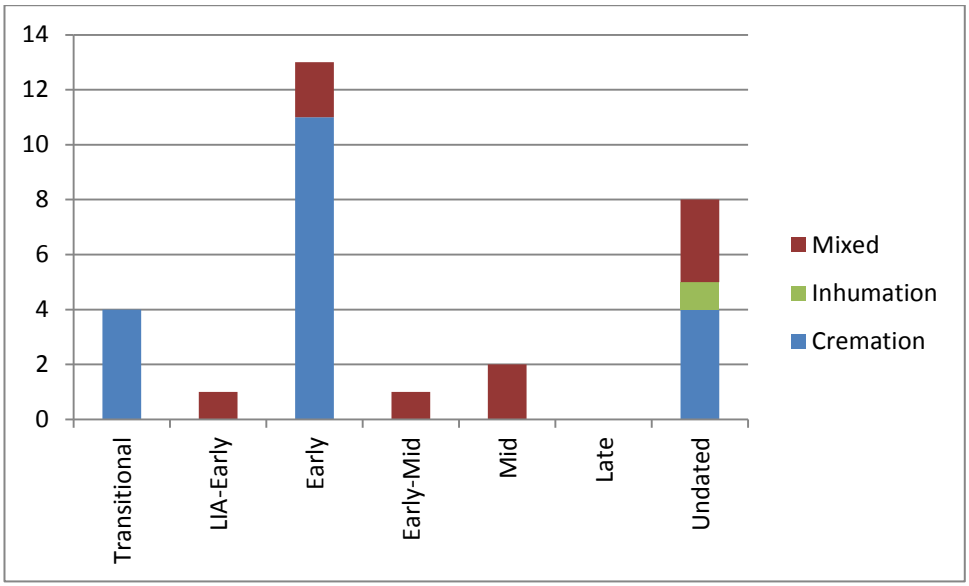


Fig. 9.13 Brooches as grave goods: date ranges and types of cemetery (absolute numbers)

There are no examples of Late Roman burials with brooches and interestingly they do not seem to be associated with Transitional period inhumations. Bracelets appear to peak in popularity in the Mid Roman period (Fig. 9.14) and are most commonly found in mixed cemeteries. Philpott (ibid.) finds these most often with 2nd century cremations (remarking on their frequency at Ospringe). Beads, rings, hairpins and (occasionally) pendants and necklaces also occur but closer analysis is needed to detect patterns.

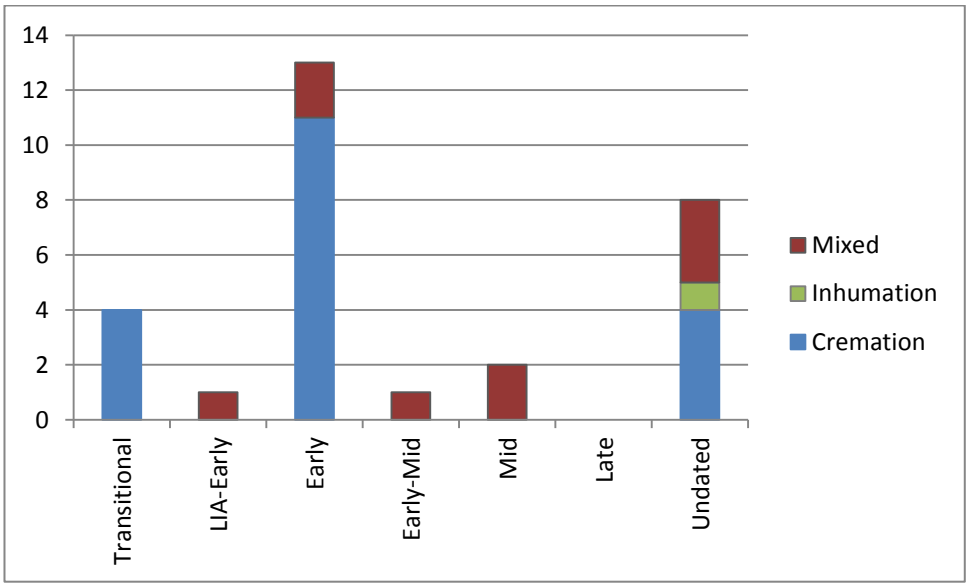


Fig. 9.14 Bracelets as grave goods: date ranges and types of cemetery (absolute numbers)

9.9 Conclusions

This chapter forms no more than an introduction to the funerary record for rural Romano-British Kent. There are many potential areas of for further detailed scrutiny. A number of major excavations have still to come to publication but in time these, together with details from other sites investigated since the 1990s should aid our understanding of mortuary ritual. Analysis of individual assemblages is required to allow comparison between types of site and between rural and urban assemblages. Deviant and unusual burials which overlap with other areas of ritual behaviour merit analysis as does the relationship of burials to older man-made features. Sub-regional traits in styles of burial may become apparent.

Nevertheless, certain patterns clearly emerge. The largest cemeteries, not unexpectedly, tend to relate to known local centres; those that do not should alert us to the possibility of others. There is a strong correlation between formal cemeteries (in particular walled cemeteries and tumuli) and the road system. In the hinterlands, the dead become more "dispersed" (Pearce 1999b). Small, formal cemeteries are sometimes found in direct association with settlements, located just beyond boundary enclosures.

The dead may sometimes be enclosed or sometimes become part of an enclosure feature: boundaries and trackways are significant loci for both group and individual burials. These may be incorporated into living features or into "deceased" ones (Pearce ibid., 156), creating chains of connection between the living and the recently dead and between the recently dead and the ancestors. Boundary feature graves sometimes incorporate 'formal' burial features including coffins and/or grave goods, indicating that they are not just the disposal of outcasts or the dispossessed but may be reinforcing - or stating claims to - land viewed as ancestral. Just as the tombs of the dead were a visible feature of major roads and settlements, so too farmsteads, local routes and field boundaries were characterised by the presence of the ancestors.

There is evidence for local burial traditions having quite strong degrees of patterning. These particularly relate to the distributions of walled cemeteries, tumuli and amphora burials. This is a subject which will be returned to.

There still remains, though, the problem of the invisible dead. In part this is a problem of excavation; the concept of investigating beyond settlement boundaries is a relatively recent one, but the nature of most contemporary, developer-led excavation equally

militates against the exposure of settlements in the context of their immediate surroundings. Larger, open area excavations, as undertaken at Thanet Earth can, as is apparent, provide more context.

We know very little even about where the inhabitants of villas were buried, beyond the mausolea at Lullingstone and (just beyond the border) Keston, the tumulus at Holborough and the mausoleum at Grange Farm, for which the putative villa itself has not been located. Small numbers of inhumations have additionally be uncovered at Franks (Philp 2007), Darenth (Philp 1973, 134) and Snodland (Dawkes 2009a, 14), whilst three skeletons were strangely found in a disused hypocaust at Eccles. Even here, the number of burials is very low. Some of the smaller cemeteries have fairly long time spans which might suggest that perhaps only selected individuals from the related settlement were interred within them.

We simply do not know where the bulk of the rural population were buried (if they were). Possibly some were interred in the urban and larger centre cemeteries which appear to be extensive and are not completely known (nor ever will be, given how much has already been destroyed). Substantial suburban cemeteries are frequent and long-lived features of many Roman towns and may represent not just the urban population but the burial of others who looked to the town as a "significant social and religious focus" (Millett 1990, 142). Otherwise unaccompanied inhumations, particularly in areas of acid soil, and unurned/organic-contained cremations may account for some of the missing.

Further analysis of the data which this chapter has only started to explore will undoubtedly be fruitful.

Notes

[i] Philpott's study concentrates on aspects of grave furnishing and does not attempt to be a comprehensive corpus of burials.

[ii] These include a Nene Valley beaker and a flanged bowl in a reduced fabric copying a Samian form.

[iii] It is interesting that the enclosure containing the putative shrine at Swanscombe Community School also enclosed a corn-drier/kiln and the possible mausoleum at Frog Farm (see later) appeared later to have had a flue inserted into it. Burials are also not uncommon near disused pottery kilns on the north Kent Marshes.

[iv] Unfortunately known only from the transcribed recollections of a workman.

[v] The well-known examples from Keston are not included here as they fall just outside the present county boundary.

[vi] Lambarde reports the discovery of a pot of ashes, possibly a secondary burial, but in the context of later discoveries, more likely from a ritual pit containing pyre sweepings; Wright found what may have been a pyre site below the barrow.

[vii] This involved the deposit of part of the cremated remains in an elongated wooden "coffin", the deposition of further remains, together with pyre and possibly feasting debris in a group of ritual pits, the smashing of a group of North African and Mauritanian amphorae (these themselves unusual in Britain) and evidence that the deceased was cremated whilst seated on a *sella castrensis*. This suggests that he, or perhaps an ancestor, held an official position.

[viii] For some reason Luard thinks these incongruously earlier than the central burial.

[ix] A fact somewhat offset by the known presence of tumuli just outside Canterbury.

[x] A burial in which the cremated remains (normally contained in a smaller ceramic vessel), ancillary vessels and other grave goods are contained within an amphora. This is normally a Dressel 20 with neck and handles removed.

[xi] Although the phenomenon is present in all three high status graves (6260, 6635 and 6645) this interpretation is only suggested in the report for Grave 6635 (Allen *et al*. 2012, 355).